As hurricane season starts to wind down, another season is just getting started. Rainy season in Hawaii runs from October through April. According to the National Weather Service (NWS) in Hawaii, between 1960 and 2005 flash flood events have occur an average of eight times per year. Historically, the months of October and November have experienced the highest flash flood event frequency. NWS statistics indicate that flash floods are the leading cause of direct weather-related deaths in the State of Hawaii, far exceeding the toll caused by high wind events and tropical cyclones.

**Turn Around Don’t Drown™** is a NOAA National Weather Service campaign to warn people of the hazards of walking or driving a vehicle through flood waters. Most flood-related deaths and injuries could be avoided if people who come upon areas covered with water followed this simple advice: **Turn Around Don’t Drown™**.

The reason that so many people drown during flooding is because few of them realize the incredible power of water. A mere six inches of fast-moving flood water can knock over an adult. It takes only two feet of rushing water to carry away most vehicles. This includes pickups and SUVs.

If you come to an area that is covered with water, you will not know the depth of the water or the condition of the ground under the water. This is especially true at night, when your vision is more limited.

Continued on Page 2
Wai Halana is published quarterly by the Department of Land and Natural Resources (DLNR), Engineering Division. It is supported by the Federal Emergency Management Agency (FEMA) under the Community Assistance Program. The contents of this publication is to increase awareness about the National Flood Insurance Program. The authors and publisher are solely responsible for the accuracy, and do not necessarily reflect the views of DLNR or FEMA.

Play it smart, play it safe. Whether driving or walking, any time you come to a flooded road, TURN AROUND, DON'T DROWN!

Follow these safety rules:

- Monitor the NOAA Weather Radio, or your favorite news source for vital weather related information.
- If flooding occurs, get to higher ground. Get out of areas subject to flooding. This includes dips, low spots, canyons, washes etc.
- Avoid areas already flooded, especially if the water is flowing fast. Do not attempt to cross flowing streams. Turn Around Don't Drown™
- Road beds may be washed out under flood waters. NEVER drive through flooded roadways. Turn Around Don't Drown™
- Do not camp or park your vehicle along streams and washes, particularly during threatening conditions.
- Be especially cautious at night when it is harder to recognize flood dangers.

Source: National Weather Service

Compare Risks

Your chances of being flooded are much greater than some other risks you face daily. If you live in a 100-year floodplain, there is more than a 1 in 4 chance that you will be flooded during your 30-year mortgage. During a 30-year mortgage period you are 27 times more likely to experience a flood than having a fire.

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Source: Flood Safety Education Project
http://floodsafety.com/national/property/index.htm
Free of Obstruction Rating in VE Zones (Coastal Floodplains)

The NFIP Flood Insurance Manual states that open wood lattice or insect screening below the lowest elevated floor of elevated Post-FIRM buildings, located in V zones, are not considered as obstructions so long as they meet the performance requirements of Section 60.3(e)(5) of the NFIP regulations. To increase the likelihood that the screen or latticework will collapse as intended, without transferring loads to the building or its foundation, FEMA recommends that the vertical framing members on which the screen or latticework is mounted (such as 2x4’s) be spaced at least 2 feet apart. Either metal or synthetic insect screening is acceptable. Lattice is available in 4’x8’ sheets in wood or plastic, and both are acceptable. The material used to fabricate the lattice should be no thicker than 1/2 inch, and the finished sheet should have an opening ratio of at least 40 percent. Buildings with open wood or plastic lattice or insect screening that meet the above criteria are rated using the “Free of Obstruction” rates.

FEMA understands that some buildings in V zones have designs for privacy screening that provide for an opening ratio of at least 40 percent using horizontal or slanted wood slats or shutters. The wood slats and shutters are breakaway and purely cosmetic in nature, serving the same purpose as lattice.

FEMA has determined that wood slats and shutters used as privacy screening can be considered to perform as latticework and allow the building to be rated as “Free of Obstruction,” provided that the following criteria are met:

- Shutters or wood slats have a thickness no greater than 1 inch.
- Opening ratio of at least 40 percent.
- No machinery or equipment is below the lowest elevated floor unless it is above Base Flood Elevation.

Any construction that does not meet the above criteria must be treated as a non-supporting breakaway wall, and a registered professional engineer or architect must certify that the design meets the conditions of 44CFR 60.3(e)(5)(i) and (ii). Such construction practices should be rated using the “With Obstruction” rates.

Source: FEMA, Underwriting Section (memo W-04018)
To download the original memorandum, click here

What is an Enclosure?

Enclosures can be divided into two types, breakaway and non-breakaway.

- **Breakaway enclosures** are designed to fail under Base Flood conditions without jeopardizing the elevated building – any below-BFE enclosure in a V zone must be breakaway. Breakaway enclosures are permitted in A zones but must be equipped with flood openings.

What Is an Enclosure? An “enclosure” is formed when any space below the BFE is enclosed on all sides by walls or partitions. A V-zone building elevated on an open foundation (see Fact Sheet No. 11), without an enclosure or other obstructions below the BFE, is said to be free-of-obstructions, and enjoys favorable flood insurance premiums (a building is still classified free-of-obstructions if insect screening or open wood lattice is used to surround space below the BFE). See [FEMA Technical Bulletin 5-93, Free of Obstruction Requirements](#) for more information.
Flood policies offered by the NFIP provide coverage to insured property, regardless of flood risk zone. The zone determination, however, does affect the rating criteria and construction requirements of the individual property.

In the "Zone"

Every community participating in the NFIP has been extensively mapped to identify hazard areas. These are known as flood zones. Areas with the greatest risk of flooding are known as Special Flood Hazard Areas (SFHAs) and are designated as A or V zones on the maps. SFHAs have a 1-percent chance of flooding in any given year. The X zones (formerly called B and C zones) are moderate- or minimal-hazard areas. A shaded X zone is perceived to have a greater likelihood of flooding than an unshaded X zone, although statistics do not actually confirm that.

Flood policies offered by the NFIP provide coverage to insured property, regardless of flood risk zone. The zone determination, however, does affect the rating criteria and construction requirements of the individual property.
Every property is individually rated in the NFIP, according to its date of construction, building type, and use, as well as its risk zone. Buildings in SFHAs must be elevated to a required minimum height above the floodplain if constructed after the establishment of the Base Flood Elevation posted on the community’s flood map.

Coverage Limitations

Every agent needs to realize that the policy provided by the NFIP Servicing Agent or the contracted WYO companies is a limited contract. Assumptions relative to other types of insurance contracts cannot be made. The flood policy covers one thing and one thing only—direct damage by or from flood, as defined. In fact, the explanation requires that the damaged property have undergone some physical change as a result of the floodwaters. There is no coverage for consequential damage, indirect damage, financial loss, loss of use, additional living expenses, or extra expense. These losses are clearly excluded in the policy.

Additionally, there is no coverage for many types of property, including finished structure or personal property in a basement or under an elevated building, underground structures, decks or walkways outside the perimeter walls of a building, or any property in the open. Coverage is very limited for valuable items such as jewelry, antiques, or art. With regard to business personal property, there is no coverage for the property of others in the care, custody, or control of the policyholder.

Finally, agents need to explain the settlement conditions of NFIP policies. Most claims will be settled on an Actual Cash Value basis. This includes all personal property and all structures except for a single-family primary residence. The single-family primary residence may be eligible for a settlement based on the replacement cost with like kind and quality of structure items if it is insured to at least 80 percent of its replacement cost at the time of the loss. This is not an agreed value and definitely not guaranteed replacement cost. The maximum amount to be paid will be the amount of insurance.

The main lesson to be learned about flood is that every insurance client is at risk for flooding. Coverage for this most common event is principally available through the NFIP, which provides a limited coverage form. There is no promise of full indemnification; coverage is limited to insured structures and certain types of personal property. The only way to understand the full scope of the coverage is to read and study carefully the Flood Insurance Manual and the policy form. Complete information about the NFIP is available at the FEMA website (www.fema.gov/business/nfip/). Spend the time now to avoid the problems later.

Rita Hollada, CIC, CPCU, CPIA, is a member and has served as the Chair of the Flood Insurance Producers National Committee. She works closely with the staff of the NFIP on producer issues and as a liaison to the producer community. She is a member of the National Faculty of the CIC program and often works as a consultant to insurance agencies and companies. She can be reached at rita@insprofs.com.

Spotlight features informative publications which are available to the public free of charge.

Flood Cleanup and the Air in Your Home

During a flood cleanup, the indoor air quality in your home or office may appear to be the least of your problems. However, failure to remove contaminated materials and to reduce moisture and humidity can present serious long-term health risks. Standing water and wet materials are a breeding ground for microorganisms, such as viruses, bacteria, and mold. They can cause disease, trigger allergic reactions, and continue to damage materials long after the flood.

For basic information on how to clean up after a flood and how to prevent indoor air problems download this fact sheet from the Environmental Protection Agency.

http://www.epa.gov/mold/flood/index.html
Let’s take a closer look into Hawaii County’s FIRM panel 0713D. This panel covers the areas surrounding portions of:

Keopu Drainageway
Hienaloli Drainageway, and
Waiaha Drainageway.

Did you know FEMA has approved seven Letter of Map Revisions for this panel?

A Letter of Map Revision (LOMR) is FEMA’s modification to an effective Flood Insurance Rate Map (FIRM), or Flood Boundary and Floodway Map (FBFM), or both. The LOMR officially revises the Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map (FBFM), and sometimes the Flood Insurance Study (FIS) report, and when appropriate, includes a description of the modifications. The LOMR is generally accompanied by an annotated copy of the affected portions of the FIRM, FBFM, or FIS report.

### FEMA Case No. Effective Date of Revision

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Elevation Certificate FAQ

A new feature to our NFIP website is the “Frequently Asked Questions” (FAQ) page which currently posts common questions about filling in FEMA’s Elevation Certificate Form.

Click [here](http://www.hidlnr.org/eng/nfip/Faq.aspx) to check it out.

Except for the County of Kauai, the coastal flood hazards depicted on the current FIRMs reflect tsunami-induced flooding. The tsunami run-up profiles and inundation areas were based on a 1974 study by Bretschneider and Wybro, entitled: “Tsunami Inundation Prediction”. Tsunami wave elevations were based on the U.S. Army Corps of Engineers, Waterways Experiment Station’s Technical Report, “Tsunami-Wave Elevation Frequency of Occurrence for the Hawaiian Islands (August 1977)”. The south shores of our islands have greater impact from storm surges due to hurricanes. Thus, the reason FEMA is conducting the Hawaii Hurricane Flood Insurance Risk Study. FEMA will be utilizing data from at least 13 historical storm tracks, starting with Hurricane Hiki in 1950 to determine the 1% chance event. Results from this study will be compared to the tsunami-induced flooding from the effective FIRMs. The revised FIRMs will reflect the “worst case” flood hazard.

It may be time to consider purchasing flood insurance. The NFIP’s grandfathering provision offers savings for structures that were built before a flood map was issued for the community, or that were built in compliance with the flood map in effect at the time of construction. The simplest way to grandfather is to purchase a flood insurance policy before the new map takes effect and maintain coverage without a lapse.

More info on the Grandfathering Rule, click [here](http://www.hidlnr.org/eng/nfip/Faq.aspx)
NFIP premiums will increase an average of 6.0 percent for policies written or renewed on or after May 1, 2007. Although rates for subsidized policies will increase 7.0 percent, premiums for actuarially rated policies will rise only 5.4 percent as a result of leaving the rates for Preferred Risk Policies unchanged while increasing the premiums for Standard X-Zone policies and actuarially rated Special Flood Hazard Area policies an average of 7.4 percent. Premium increases vary by flood-risk zone as described below.

**V Zones**
(coastal high-velocity zones)

Larger rate increases are being implemented again this year (1) due to an increased contingency loading (from 10 percent to 20 percent) that more appropriately reflects the volatility in flooding and (2) in response to the Heinz Center’s Erosion Zone Study, which clearly indicates that current rates significantly underestimate the increasing hazard from steadily eroding coastlines.

- Post-FIRM V Zones: Premiums will increase 10 percent.
- Pre-FIRM V Zones: Premiums will increase about 9.5 percent.

**A Zones**
(non-velocity zones, which are primarily riverine zones)

There will be large increases this year.

- Post-FIRM AE Zones: Premiums will increase about 6 percent as indicated by the NFIP's actuarial rate model, which includes an increase in the contingency loading from 5 percent to 10 percent.
- Pre-FIRM AE Zones: Premiums will increase about 7 percent, which will help to reduce the amount of the subsidy in these rates.
- AO, AH, AOB, and AHB Zones (shallow flooding zones): Premiums will be increased between 9 percent to 10 percent.
- Unnumbered A Zones (remote A Zones where elevations have not been determined): Premiums will increase about 8 percent. These increases are designed to keep rates in line with Post-FIRM AE Zones.
- A99 Zones (approved flood mitigation projects such as levees, still in the course of construction): Premiums will increase about 10 percent.
- AR Zones: Premiums will increase about 10 percent.

**X Zones**
(zones outside the Special Flood Hazard Area)

Moderate increases are being implemented.

- Standard Risk Policy: Premiums will increase about 10 percent.
- Preferred Risk Policy: No changes.

**Mortgage Portfolio Protection Program**

Rates have been revised to keep them in line with increases to A and V Zone policies.

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**May 2007 NFIP Rate Changes**

**Hawaii Floodplain Manager’s Conference**

Ironically, as Hurricane Flossie approached the Big Island of Hawaii, Floodplain Manager’s throughout the State gathered in Kona for the 3rd Annual Hawaii Floodplain Manager’s Conference at the Sheraton Keauhou Bay Resort on August 15th and 16th. The two day conference, attended by approximately 30 participants from the Federal, State, local, and private sector, discussed topics and issues relating to the National Flood Insurance Program regulations and FEMA mapping efforts.

Thank you to all participants for making this conference a success !!!

**Save the Date**

The 4th Annual Hawaii Floodplain Manager’s Conference will be held August 13 and 14, 2008 on the island of Kauai
Non-breakaway enclosures, under the NFIP, can be used in an A zone (they may or may not provide structural support to the elevated building), but they must be equipped with flood openings to allow the automatic entry and exit of floodwaters. The Home Builder’s Guide to Coastal Construction recommends their use only in A zone areas subject to shallow, slow-moving floodwaters without breaking waves.

Enclosures are strictly regulated because, if not constructed properly, they can transfer flood forces to the main structure (possibly leading to structural collapse).

Other considerations:

- Owners may be tempted to convert enclosed areas below the BFE into habitable space, leading to life-safety concerns and uninsured losses. Construction without enclosures should be encouraged. Contractors should not stub out utilities in enclosures; utility stub-outs make it easier for owners to finish and occupy the space.

- Siding used on non-breakaway portions of a building should not be extended over breakaway walls. Instead, a clean separation should be provided so that any siding installed on breakaway walls is structurally independent of siding elsewhere on the building. Without such a separation, the failure of breakaway walls can result in damage to siding elsewhere on the building.

- Breakaway enclosures in V zones will result in substantially higher flood insurance premiums.

- If enclosures are constructed in A zones with the potential for breaking waves, open foundations with breakaway enclosures are recommended in lieu of foundation walls or crawlspaces. If breakaway walls are used, they must be equipped with flood openings that allow flood waters to enter the enclosure during smaller storms. Breakaway enclosures in A zones will not lead to higher flood insurance premiums.

Source: FEMA 499, Technical Fact Sheet No. 27

FEMA’s Home Builder’s Guide to Coastal Construction, Technical Fact Sheet Series
FEMA 499
August 2005
Download here
http://www.fema.gov/rebuild/mat/mat_fema499.shtm