



# Wai Halana

*Hawaii Flood News*

## Wet Winter Wreaks Havoc on Isles

The wet and windy weather in December caused a lot of damage on the Island of Oahu and Kauai. Severe flooding was seen across the “Gathering Place” and the “Garden Island”. State Civil Defense estimates that almost 4 dozen structures suffered major damages. Haleiwa, Waianae, and Laie were hardest hit on Oahu. Heavy hit areas on Kauai included Waimea and Hanapepe. The severe weather even prompted the National Weather Service (NWS) to issue a tornado warning for Kauai, after radars indicated developing weather conditions conducive of producing a twister seven miles southwest of Kaumakani, 24 miles west of Lihu’e.



Beginning on December 10th, heavy rains began to fall on Oahu and Kauai. By early Thursday morning, December 11th, NWS reported rain gage readings on Oahu and Kauai were as high as 10 inches in the past 24-hours in some areas. As the rain subsided on Friday, many residents began the tedious cleanup process. However, because the ground was already saturated and rivers swollen, the second rounds of rains created severe flood conditions once again over the weekend, December 13 and 14.

Meanwhile, on December 12, 2008, Governor Linda Lingle issued an emergency proclamation in order to provide relief for disaster damages and losses during the storm period of December 10 - 16, 2008. State Civil



Photos taken by: Richard Ambo (Honolulu Advertiser)

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The current and selected past issues are also available at:

[www.hawaiiinfip.org](http://www.hawaiiinfip.org)

We welcome your comments and suggestions, as well as, newsworthy articles. Your submissions may be sent to the Department of Land and Natural Resources, Engineering Division, P.O. Box 373, Honolulu, Hawaii 96809. If you'd like to receive Wai Halana via email or wish to be removed from our mailing list, contact Elaine Keb at (808) 587-0227.

Upcoming Events



**BIA Home Building & Remodeling Show**  
January 22 - 25, 2009

Neal Blaisdell Exhibition Hall  
777 Ward Avenue, Honolulu, HI

For more information visit:  
[www.biahawaii.org](http://www.biahawaii.org)

**Hawaii Land Surveyors Association Annual Conference**  
January 29 - 30, 2009

Hilton Waikiki Prince Kuhio Hotel

For more information visit:  
[www.hlsa-hawaii.org](http://www.hlsa-hawaii.org)



June 7 - 12, 2009  
Rosen Centre Hotel  
Orlando • Florida

For more info, visit: [www.floods.org](http://www.floods.org)



As a result of the recent floods, the State Civil Defense opened a series of Disaster Assistance Recovery Centers (DARCs) throughout Oahu a week after the December 11<sup>th</sup> floods. After spending time at the DARCs, it became apparent to me that I was hearing similar versions of the same tragedy about the losses suffered by those affected by the flooding.

One elderly woman told me how she made it out of her house just in time before the floodwaters rushed in and flooded the inside of her home with 4 feet of muddy flood waters. The only thing she could save was her birth certificate. I asked if she had flood insurance. She simply replied, "No" with a saddened look in her eyes. We sat together looking through FEMA's flood maps and determined that her home was located in a high hazard flood zone (AE Floodway). When I asked if she had paid off her mortgage, she said, "Yes", she further explained that is why she dropped her flood insurance coverage.

*To my amazement, this woman's story wasn't unique. I heard similar stories from other homeowners.*

*Regrettably, one homeowner dropped her flood insurance coverage in October of this year because she said her insurance agent told her she didn't need it anymore since the mortgage had been paid off. She lost everything in the December floods and says she doesn't know how she's going to rebuild.*

*Homeowner's need to remember that although the mandatory requirement to purchase flood insurance is removed because they paid off their mortgage, their home has not been removed from being in a high risk flood zone.*

*Another common complaint echoed by homeowners: "my insurance agent never told me my contents weren't covered in my flood insurance policy, I just assumed it was included since the bank said I needed flood insurance." Regardless if fingers are pointed at agents neglecting to offer content coverage or a policy holder's lack of understanding of their policy coverage, this oversight has left many property owners utterly devastated.*



## Never Say Your Client Doesn't Need It

The couple sitting in your office has just told you that they understand that the homeowners policy they are buying does not cover flood insurance but they aren't worried because their house is nowhere near a body of water.

You are familiar with where this house is located. There hasn't been any flooding in that area for as long as you can remember. You take pride in your reputation and your service to your clients. Your guidance is especially important because consumers usually have limited knowledge of the levels of flood risk they face and often hold misconceptions about this. Additionally, you want to be sure you are not exposing yourself or your agency to potential Errors and Omissions (E & O) litigation.

*What should you tell this couple?*

"Do not tell a potential customer that they do not need flood insurance or that they need only minimal limits," says Pete Travis of North Pointe Insurance Company. "If your prospective clients do not wish to purchase a flood insurance policy, have them sign a Rejection of Coverage form and maintain it in their file."

Failure to place coverage on a building at risk of flooding has resulted in all too many E & O claims against insurance agents. This type of litigation does not just come from new customers. Policyholders who renew coverage on buildings that have seen substantial improvements also submit E & O claims if their agent does not use foresight at the time of renewal.

"If they request that you underinsure a building, again, have them sign a rejection form stating that they were offered and did not purchase higher coverage limits," adds Travis.

Coverage against flood losses doesn't end at the front door. Make sure that you offer contents coverage to your clients, whether or not they own their building. Help them analyze the costs of replacing uninsured contents against the annual premium to protect their belongings. However, "If contents coverage is rejected," warns Travis, "make sure you get a signed Rejection of Coverage form. In instances where a policy is being purchased for loan closing or because it is required by the lending institution for an existing loan, make sure you explain that contents coverage is not included as part of the requirement, and offer it."

*What about property that has multiple buildings?*

"Explain to your potential and existing customers that a separate flood insurance policy is required for each building," says Travis. There is one exception. "The only appurtenant structure coverage allowed is afforded under the Dwelling Form and only allows 10 percent of the dwelling's coverage to be applied to a detached garage. This only applies when the garage is used solely for parking and storage. If the garage has plumbing or is used for other purposes, a separate policy must be purchased to cover it."

Have more NFIP coverage questions? Explore the NFIP's online training modules (<http://www.nfipbureau.fema.gov/training/index.html>) for help in complying with state and Federal laws regarding flood protection.

# Maui County Set to Receive New Flood Maps



On December 11, 2008, Maui County, Department of Planning hosted a public open house to provide Maui County property owners with an opportunity to view the preliminary flood maps that the Federal Emergency Management Agency (FEMA) will be finalizing in the Fall of 2009 and advise affected residents of the insurance and regulatory implications of the map change. The updated maps will convert the existing Flood Insurance Rate Maps (FIRM) into a digital format. The new Maui County Digital Flood Insurance Rate Maps (DFIRM) will include updated flood studies for Waikapu Stream, Kamaole Gulch, Kaluiahakoko Stream.

Staff from the U.S. Army Corps of Engineers and the State Department of Land and Natural Resources also participated in the

open house. Presentations by both agencies on the National Flood Insurance Program, Levee Safety, and an ongoing project along Iao Stream was conducted.

The newly released preliminary revised maps are part of a national FEMA effort to modernize the nation's aging flood maps to reflect the most current flood risks and areas of recent growth. The updated, digital maps will provide online access to a property's flood risk and allow community planners, engineers, builders and others to determine where and how new structures and developments should be built. The proposed revised maps may be viewed online at <http://gis.hawaiiifip.org/fhat/>.

In a recent Maui County press release, Maui County's Floodplain Manager, Mr. Francis Cerizo said, "Water flow and drainage patterns have changed dramatically in Maui County over the last 20 years, which affects the likelihood of flooding in certain areas" and "The proposed FEMA map revisions will provide homeowners and potential home buyers with a more accurate-and realistic-view of a property's flood risk."

It is important that the affected property owners understand that if the new maps show their structure to be located in a different flood zone designation from the currently affected FIRM then the following implications apply:

IF THE MAP SHOWS	THESE REQUIREMENTS, OPTIONS AND SAVINGS APPLY
Change from low or moderate flood risk to high risk	Flood Insurance is Mandatory. Grandfathering offer available. Regulatory implications for new construction or substantial improvements.
Change from high flood risk to low or moderate risk	Flood insurance is optional. Conversion to a PRP offers savings.
No change in risk level	No change in insurance rates.

The Grandfathering Rule, allows property owners to maintain flood insurance rating prior to the new maps becoming effective. FEMA has published a fact sheet which provides an overview of the grandfathering rule and the options it can offer property owners in reducing flood insurance costs. To view this fact sheet, visit: <http://www.fema.gov/library/viewRecord.do?id=3423> (On-line readers, click [here](#))

For more information on the proposed FEMA map changes which may affect a future project or flood insurance requirements, contact Francis Cerizo or Carolyn Cortez at the County of Maui Department of Planning at (808) 270-7735.

# Flood Insurance Rate Maps *Updates*

## *FEMA's Going Digital*

### General Distribution of Paper Products to End on October 1, 2009

FEMA Now Distributes Paper and Digital Flood Maps; That's Changing on October 1, 2009

Since the 1970's, the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP) has provided flood hazard maps and reports to help more than 20,000 participating communities manage and reduce risks. FEMA currently distributes both paper and digital flood hazard maps and reports.



Beginning on October 1, 2009, customers may order only digital flood hazard maps and reports. FEMA's Map Service Center (MSC) will not produce or distribute paper Flood Insurance Rate Maps (FIRMs), Flood Hazard Boundary Maps (FHBM's), or Flood Insurance Study (FIS) reports on or after this date, other than a single paper copy provided to communities when their maps are updated.

FEMA Will Convert Orders for Paper Products to the Digital Equivalent Starting on October 1, 2009

For MSC accounts that have orders for paper maps, FEMA will convert the orders to requests for the FIRM Scan products on CD. Orders for paper FIS reports will be filled with digital files. If you do not wish to receive digital products, please contact the MSC before October 1, 2009, at 1-800-358-9616.

Government organizations will continue to be exempt from fees for FEMA flood hazard products. If you have questions or comments about this change, please email:

[FEMAMapSpecialist@mapmodteam.com](mailto:FEMAMapSpecialist@mapmodteam.com)

**TIP** Flood Hazard Information based on FEMA's current Flood Insurance Rate Maps can also be found using the Hawaii Flood Hazard Assessment Tool @ [www.hawaiiinfip.org](http://www.hawaiiinfip.org)

## Two more updates to FEMA's Technical Bulletins

The Technical Bulletins provide guidance concerning the building performance standards of the NFIP, which are contained in Title 44 of the U.S. Code of Federal Regulations at Section 60.3.

The bulletins are intended for use primarily by state and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. New bulletins, as well as updates of existing bulletins, are issued periodically, as necessary. The bulletins do not create regulation; rather, they provide specific guidance for complying with the minimum requirements of existing NFIP regulations.

As of August 2008, FEMA has updated two Technical Bulletins (TB).



### TB5 - Free of Obstruction Requirements

This updated document now includes a number of sections and photographs to illustrate obstructions and how they affect the performance of buildings when they are subjected to extreme natural forces such as storm surge. There is an expanded discussion of some types of obstructions, including the use of non-structural fill below and around elevated buildings. The bulletin distinguishes between obstructions below homes and those of large, fully engineered buildings, outlining in particular the differences in slabs and the use of shear walls.

### TB9 - Design and Construction Guidance for Breakaway Walls Below Elevated Coastal Buildings



In order to provide design solutions that are consistent with the NFIP regulations and building code requirements, TB-9 now includes three design methods: a prescriptive design approach, a simplified design approach, and a performance-based design approach. The updated bulletin includes diagrams and photographs to illustrate damage attributed to poor construction practices and to highlight walls that break away as designed. Also included are discussions of related matters such as garage doors, partial-height walls, exterior façades, and utilities.

Copies of all effective TBs can be found on FEMA's website, as well as the Hawaii NFIP website ([www.hawaiiinfip.org](http://www.hawaiiinfip.org)).

# Flood Resistant Design and Construction

## American Society of Civil Engineers (ASCE) Guide helps apply IBC in Floodprone Areas

Is your state one of the more than 40 states that have adopted a building code based on the model International Building Code®? If so, then you need to order a copy of ASCE 24, *Flood Resistant Design and Construction* [<http://www.asce.org>]. ASCE 24 is referenced in the section of the code that outlines requirements for buildings and structures in flood hazard areas. The most recent edition was published in 2005 (the first edition was dated 1998).



In addition, the International Residential Code® requires dwellings in floodways to be designed in accordance with ASCE 24. And the 2009 edition of the IRC will include an alternative that allows communities to require homes in V Zones to be designed in accordance with ASCE 24.

Since the 2003 editions, FEMA has noted that the International Code Series has provisions that are consistent with the NFIP's regulations for buildings. The IBC's consistency is achieved partly by reference to ASCE 24. It is important to note, however, that ASCE 24 is not simply a restatement of all of the NFIP regulations. It includes some additional specificity, some additional requirements, and some limitations.

Here are a few notable highlights.

- Freeboard is required as a function of the nature of occupancy and the flood zone. Dwellings and most other buildings have 1 foot of freeboard; certain essential facilities have 2–3 feet; only agricultural facilities, temporary facilities, and minor storage facilities are allowed to have their lowest floors at the base flood elevation (BFE).
- Flood loads and other loads are as specified in ASCE 7.
- Performance of foundations exposed to flood loads and load combinations is specified; soil characteristics and underlying strata, including soil consolidation, expansion or movement, erosion and scour, liquefaction, and subsidence all must be considered.
- Fill is required to be stable under conditions of flooding, including rapid rise and rapid drawdown, prolonged inundation, and erosion and scour; structural fill compaction is specified or an engineering report is required; side slopes are required to be no steeper than 1:1.5.
- Specifications for slabs-on-grade are listed, depending on the purpose and location of the slabs.
- Two alternatives are specified for flood openings to allow for the automatic entry and exit of floodwaters in below-BFE enclosures: nonengineered openings that do not require certification (1 square inch per square foot of enclosed area), and engineered openings that must be certified by a registered design professional.
- In V Zones and Coastal A Zones,
  - Structures shall be supported on piles, columns, or shear walls (with shear walls limited in width and oriented parallel to the flow and wave direction).
  - Mat or raft foundations, with columns extending upward, are permitted in limited circumstances.
  - Foundation depth shall take into account erosion and scour.
  - Walls designed to break away shall not produce debris that is capable of damaging structures (breakaway walls in Coastal A Zones require openings, while breakaway walls in V Zones do not).
  - Mechanical, heating, ventilation, and air conditioning elements shall be located on the landward side of structures.
  - Erosion control structures (bulkheads, seawalls, revetments) shall not be attached to buildings nor shall they focus or increase flood forces or erosion impacts on structures.
  - Decks, concrete pads, and patios shall be structurally independent of buildings and constructed to break away without producing damaging debris.
  - Pools shall be elevated, designed to break away without producing damaging debris, or sited to remain in the ground without obstructing flow that causes damage.

Order ASCE 24 from <http://www.asce.org> (click on “publications” to reach the bookstore). Download FEMA's summary from [http://www.floods.org/PDF/ASCE24\\_Highlights\\_1008.pdf](http://www.floods.org/PDF/ASCE24_Highlights_1008.pdf).



*Make Hawaii a Great  
Place to Live !*

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## **FLOOD INSURANCE POLICIES: Questions to Ask Your Real Estate Agent**



Real estate professionals have built a business around educating clients on market conditions and homes. By doing a little bit of homework and talking with your real estate agent, you can make better decisions for you and your family.

### **What is my property's flood risk?**

It's important to know what type of risk you are buying into. Even if you aren't buying a home along the ocean or river, it can still be at risk for flooding. Hawaii Residents can estimate their property's flood risk online by using the Hawaii Flood Hazard Assessment Tool (FHAT). See article on page 1 for more details.

### **Is flood insurance mandatory for my property? Will the lender require it?**

The purchase of flood insurance is mandatory for all federal or federally regulated financial assistance for the acquisition and/or construction of buildings in high-risk flood areas (Special Flood Hazard Areas or SFHAs). In high-risk flood zones, flood insurance must be maintained during the term of the loan or for the lesser of the maximum amount of available NFIP coverage (currently \$250,000) or the outstanding principal balance of the loan (less the land value). The insurance must be in place before the loan can be closed.

If the property is not in a high-risk area, but is in a low-to-moderate risk area instead, the law does not require flood insurance. However, it is recommended since historically about one-in-four flood claims come from these low-to-moderate risk areas. Note that if during the life of the loan the maps are revised and the property is now in the high-risk area, your lender will notify you that you must purchase flood insurance.

Source: [Floodsmart.gov](http://Floodsmart.gov)

