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JULY 2016

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Hawaii Flood News

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION



NFIP Eligibility in Jeopardy Due to §HRS 46-88

On April 15, 2016, the Federal Emergency Management Agency (FEMA) informed Governor David Ige that Hawaii Revised Statute (HRS) §46-88, originally enacted in 2012 and amended in 2013, prevents our four counties from properly enforcing their floodplain management regulations required for participation in the National Flood Insurance Program (NFIP). FEMA has given the State a deadline of July 31, 2017 to amend the law to ensure continued eligibility in the NFIP or risk losing the availability of federal flood insurance and some forms of disaster assistance.



Recognizing the intent of the original legislation to encourage and support diversified agriculture and self sufficiency, the Department of Land and Natural Resources (DLNR), as the State Coordinating Agency for the NFIP, will propose critical amendments to HRS §46-88 to restore the requirement for building permits when developing in flood prone areas as regulated under each county's floodplain management ordinance among other necessary changes. These amendments are mandatory to ensure that federal requirements for the NFIP are met and federal flood insurance and federal disaster assistance will continue to be made available in the State of Hawaii.

What is HRS §46-88?

- ◆ As currently enacted, HRS §46-88, provides broad exemptions from building permit and building code requirements for certain types of agricultural buildings, structures, and appurtenances.

Why is it necessary for HRS §46-88 to be amended?

- ◆ The State of Hawaii and the four major counties are "Participating Communities" in the NFIP. Participating communities must enter into an agreement with the Federal Emergency Management Agency (FEMA) to adopt and enforce floodplain management ordinances that meet or exceeds the minimum regulations set forth in Title 44 of the Code of Federal Regulations Section 60.3.
- ◆ The building permit exemptions, in accordance with HRS §46-88, is in conflict with the State and Local participating community's agreement with FEMA to maintain floodplain management regulations consistent with 44CFR§60.3. Consequently, HRS §46-88 impedes participating communities from properly administering and enforcing their floodplain management regulations.
- ◆ **FEMA will suspend** the State of Hawaii and all Local participating communities from the NFIP, if HRS §46-88 is not amended to restore building permit requirements for proposed development in a Special Flood Hazard Area (SFHA) and other areas as regulated through local floodplain management regulations by July 31, 2017.

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 publishers are solely responsible for the accuracy, and do not necessarily reflect the views of DLNR and/or FEMA.

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The current and selected past issues are also available at:
www.hawaiiinfip.org

If you wish to receive the Wai Halana via email or wish to be removed from our mailing list, please contact Amel Chun at (808) 587-0254.

Upcoming Events

Determining Base Flood Elevations in A Zones

Tuesday, August 16, 2016

Ala Moana Hotel (Honolulu)

Registration: https://hi_bfe.eventbrite.com

A "Base Flood Elevation" (aka BFE) is an extremely important elevation needed for developing in a floodplain and for flood insurance rating purposes. However, have you ever wondered how to determine what that elevation is when it's not clearly identified on a Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map? If the answer is "YES", then you need to sign up to attend this FREE Technical Workshop.



12th Annual Hawaii Floodplain Manager's Conference

Wednesday - Thursday, August 17-18, 2016

Manoa Grand Ballroom (Honolulu)

Registration: <https://2016hifpmconference.eventbrite.com>

Preview of some of this year's Conference Discussions:

- A Year in Review: Hawaii's Historic Climate Season
- DLNR Dam Safety Program Update
- A Blueprint for Action: Water Security for an Uncertain Future
- FEMA Hazard Mitigation Assistance Grant Program
- Design Consideration for Septic Systems Located in the SFHA
- Case Study - "Yes, It Is Possible to Relocate an Existing Structure"
- HiDOT's Statewide Digital Leveling Project Update
- Lualualei Flood Mitigation Study
- Unintended Consequences of HRS 46-88
- Federal Flood Risk Management Standards EO13690
- Building Resilience into Public Infrastructure



Paul McDonald (State Farm), Anna Foust (Maui Civil Defense Agency), Carol Tyau-Beam (DLNR), Tim Waite (Simpson Strong-Tie)

DLNR is on the Road ...

The Department of Land and Natural Resources (DLNR) has been busy educating the community about flood hazards in preparation of Hurricane Season which officially kicked off on June 1st.

DLNR staff has recently participated in the Mililani Emergency Preparedness Fair, the Natural Hazard Preparedness Expo at Windward Mall, and the Maui County Hazard Preparedness Fair at Queen Kaahumanu Shopping Center in Wailuku. Come visit us at upcoming these events:

- July 30th: Ready 2 React (Pearlridge Center)
- September 10th: 6th Annual Get Ready Ewa Beach (Ewa Makai Middle School)



Kristen Akamine (DLNR)



Jesse Colandrea and Amel Chun (DLNR)

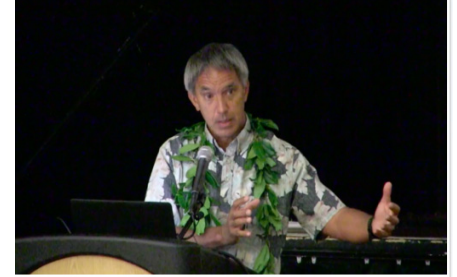


HAWAII'S FIRST WORKSHOP ON SEA LEVEL RISE EXPLORES RISKS AND ADAPTATION STRATEGIES

(HONOLULU) – Recognizing that Hawaii is the only island state in the U.S. and that our islands will likely be the first and most dramatically impacted by rising ocean levels, the State Interagency Climate Change Adaptation Committee (ICAC), this week held it's first-ever sea level rise vulnerability and adaptation workshop.

On Thursday, Feb. 11, 2015 the ICAC brought together pre-eminent climate change experts, state and county leaders, and other interested people to learn about how Hawaii is going to be affected by rising seas and to explore adaptation strategies.

In a keynote address, master navigator Nainoa Thompson of the Polynesian Voyaging Society called on the 250 workshop participants to begin creating the map that Hawaii and other coastal and island locations will need to navigate one of the most scientifically and technically challenging environmental issues the globe will face in coming decades. Thompson implored the audience, "I need you to help explain to my children and all children that what you will accomplish today will not only help protect our shorelines but help protect their homes for tomorrow." Thompson added, "Please understand that I am extraordinarily grateful, on behalf of my children, for you being here to help us chart the course and create the map for the future."



Sam Lemmo is the co-chair of ICAC and the administrator of the DLNR Office of Conservation and Coastal Resources. He explains, "We want to have maximum public outreach and this workshop achieves one of our objectives of having maximum public participation. We're going to take the feedback and comments from events like this and others and incorporate them into our report to the Hawaii State Legislature." Act 83 established the ICAC and requires the development of a report on sea level rise and adaptation strategies to lawmakers by the end of 2017.

Sea level rise is expected to have significant impacts on coastal areas, including Waikiki, which is the primary economic driver for Hawaii's visitor industry. Dr. Chip Fletcher leads a team of researchers at the University of Hawaii School of Ocean and Earth Science and Technology (SOEST). The team is well known for the models it creates that predict how certain low lying coastal plains will be inundated by ocean water, when and to what depths.

Fletcher told participants, "2015 broke all records as the hottest year in the last 130 years. Climate change is highly variable and has no uniformity. The science associated with it demands the very best research possible." Fletcher focused on climate change impacts: heat waves, changing precipitation patterns, food impacts, rain in Hawaii, ecosystem threats, changing storminess, optimism about climate change, and sea level rise.

Other speakers included Dr. Catherine Courtney of Tetra Tech, Inc., the consulting firm working with the ICAC and Anukriti Hittle, a visiting scholar at the East-West Center from Washington University in St. Louis.

The second half of the workshop was titled, "Adaptation: Charting the Course." It involved small group discussion on people's various roles in sea level rise strategies and charting a new direction based on sea level rise projections.

Videos of all the presentations and workshop activities will be posted to the State's climate change website where you can also find information about sea level rise and its possible impacts on you and your family: <http://climateadaptation.hawaii.gov/>

Sea Level Rise Workshop Media Clips

from **Hawaii DLNR** 2 months ago | more

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HAWAII'S FIRST WORKSHOP ON SEA LEVEL RISE EXPLORES RISKS AND ADAPTATION STRATEGIES
250 Experts, Policy Makers and Citizens Gather at UH-Manoa

Recognizing that Hawaii is the only island state in the U.S. and that our islands will likely be the first and most dramatically impacted by rising ocean levels, the State Interagency Climate Change Adaptation Committee (ICAC), this week held it's first-ever sea level rise vulnerability and adaptation workshop.

On Thursday, Feb. 22, 2015 the ICAC brought together pre-eminent climate change experts, state and county leaders, and other

More from Hawaii DLNR

Autoplay on

- Sea Level Rise Workshop Media Clips**
from Hawaii DLNR
- ICAC Workshop-Sea Level Rise Outlook**
from Hawaii DLNR
- ICAC Workshop-Keynote Address**
from Hawaii DLNR

<https://vimeo.com/155254364>



2015 Elevation Certificate has been Revised

On June 13, 2016, the Federal Emergency Management Agency (FEMA) issued a revised version of the fillable 2015 Elevation Certificate (FEMA Form 086-0-33). The form can be download from the FEMA website at: <https://www.fema.gov/media-library/assets/documents/160>.

The PDF form has been enabled to be filled and saved using Adobe Reader. For insurance purposes, FEMA will allow the use of older versions of the form through December 31, 2016. However, beginning January 1, 2017, all elevation information must be submitted using the June 13, 2016 version of the 2015 Elevation Certificate. Note that in the future, no further transition periods will be provided when a new FEMA EC is approved (reference: WYO Bulletin W-16040).

ELEVATION CERTIFICATE GENERATOR (ECG)

If you haven't already tried the Department of Land and Natural Resources, ECG, you are missing out on a cool application which is part of our popular Flood Hazard Assessment Tool (a.k.a. FHAT). The ECG debuted in 2010 and has become a very valuable tool for those needing to fill out the Elevation Certificate form. The ECG is simple to use and will improve the correctness of the information that is recorded on the form by ensuring the current FIRM maps are being utilized.

Here's how you use the ECG:

- 1) Locate your property of interest and then zoom to an extent where the center front of a structure of interest is clearly visible;
- 2) Open the ECG on the menu pane. Click on the compass icon, then click on the center of the front of the structure of interest. The latitude and longitude will automatically populate into the menu pane, along with the active parcel TMK number and corresponding address;
- 3) Click "Download EC" button;
- 4) A fillable PDF copy of the current version of the Elevation Certificate will open with numerous fields already pre-populated into the form.

The following fields will be pre-populated into the form:

Item A2 - Building Street Address: The source of this information is from the City and County's real property tax assessment GIS data. If the address is not current, users may correct the address as necessary.

Item A3 - Property Description: This field will be populated with the TMK number associated with the parcel. The source of this data is from the individual county's GIS parcel data.

Item A5 - Latitude / Longitude: This field will be filled in with the Latitude and Longitude associated with the point that was selected (with the compass icon) to initiate the EC.

Item B1- NFIP Community Name & Community Number: This field will be filled in with the community name and number associated with the parcel that was selected.

Item B2 - County Name. This field will be filled in with the county name associated with the parcel that was selected.

Item B3 - State: This field will be filled in with "Hawaii".

Continued from Page 4

Item B4 and B5 - Map/Panel Number and Suffix: This field will be filled in with the current effective Map/Panel number and suffix associated with the parcel that was selected. If the parcel is within multiple panels these fields will be filled in with an (*) asterisk and all applicable map panels and map panel suffix will be listed in comment section D.

Item B6 - FIRM Index Date: This field will be filled in with the current effective FIRM index date associated with the parcel that was selected.

Item B7 - FIRM Panel Effective/Revised Date: This field will be filled in with the current effective FIRM panel. If the parcel is within multiple panels, B7 will be filled in with an (*) asterisk and all applicable map panel dates will be listed in comment section D. In addition, if the property is encumbered by a Letter of Map Change, a (**) double asterisk and note will be added in the comment Section D.

It's important to note that the ECG will not provide the Flood zone (Item B8) and Base Flood Elevation (B9). The reason for this is because this information is specific to the structure and not the parcel. The preparer must evaluate the FEMA Flood Insurance Rate map on the FHAT and determine this information based on the location of the structure relative to the flood hazard. Unfortunately the FHAT cannot automate this process.

For Base Flood Elevations (BFE) along a riverine condition, the BFE data should be obtained from flood profiles (if available). The flood profiles for streams studied by detailed method can be found in FEMA's Flood Insurance Study (FIS). Copies of the FIS can be download through the FHAT by opening the FIS menu pane.



HOW TO OBTAIN AN ELEVATION CERTIFICATE FOR OAHU CONSTRUCTION IN A SPECIAL FLOOD HAZARD AREA

A FEMA Elevation Certificate (EC) is a required document needed to rate flood insurance policies for Post-FIRM structures. Sometimes this document may be difficult to locate if you are not the original owner of the property and a little more challenging in the City and County of Honolulu for post-FIRM structures (built on or after September 3, 1980). The reason finding an EC is a little bit more difficult in the City and County of Honolulu is because the City did not require documentation of post-construction elevations on a FEMA EC form. Between September 3, 1980 to March 25, 2003, they were using a City form. Although this form had essentially the same information as the EC, insurance agents are not allowed to use it to write a flood policy. Here are a few tips to help determine if an EC can be found at the City:

Was the existing post-FIRM structure built between September 3, 1980 - March 25, 2003?

If, **YES**: then it is highly likely the City does not have a Post-Construction EC on file because prior to this date the City was not requiring documentation of post-construction elevations on a FEMA EC form (see attached memo). A previous owner of the property may have obtained a FEMA EC if they needed to obtain flood insurance. Current owners or prospective buyers could ask the previous owner if they have one and would be willing to share a copy. Otherwise, a surveyor will need be retained to prepare an EC for flood insurance purposes.

Was the existing post-FIRM structure built after March 25, 2003?

If, **YES**: then it's probable that the City has one on file. Visit the City and County of Honolulu's Data Access and Imaging Branch (DAIB) on the 1st floor of the Fasi Municipal Building. DAIB does not take phone request. The costs for obtaining a copy of the EC is a \$5.00 processing charge plus a nominal per page charge. The inquirer will be asked to fill out a data request form with the following information:

- Building Permit Number (don't know permit number? go to: <http://www.honoluluapp.org/OnlineServices/Honline>);
- Tax Map Key (TMK) number;
- Street Address for the structure

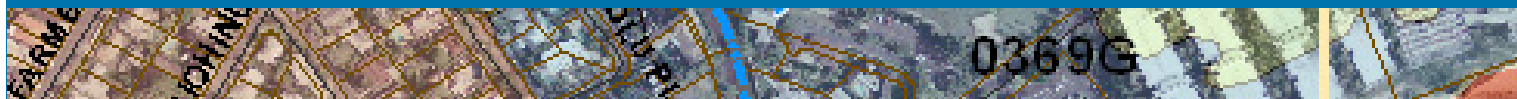
DAIB's hours of operation are 7:45 am – 4:30 pm. Phone number is 768-8277.

Note: DLNR Engineering Division is not a repository for completed FEMA ECs. ECs as required for floodplain development are retained by the local permitting agencies.



FLOOD MAPS *Updates*

Are you currently doing work in the Counties listed here? If so, please take note that FEMA has approved the following Letter of Map Changes (LOMCs) to the flood hazard information shown on the effective Flood Insurance Rate Maps.



City and County of Honolulu

Type: LOMA
FIRM Panel 0030G
Revision Date: February 23, 2016
FEMA Case Number: 16-09-1231A
Flooding Source: Pacific Ocean
On-line readers can view LOMC [here](#)

Type: LOMR-FW
FIRM Panel 0270G
Revision Date: April 25, 2016
FEMA Case Number: 16-09-1448A
Flooding Source: Heeiea Stream
On-line readers can view LOMC [here](#)

Type: LOMA
FIRM Panel 0386G
Revision Date: April 29, 2016
FEMA Case Number: 16-09-1521A
Flooding Source: Wailupe Stream
On-line readers can view LOMC [here](#)

Type: LOMA-FW
FIRM Panel 0270J
Revision Date: May 3, 2016
FEMA Case Number: 16-09-0963A
Flooding Source: Kawa Stream
On-line readers can view LOMC [here](#)

Maui County

Type: LOMA
FIRM Panel 0567F
Revision Date: January 29, 2016
FEMA Case Number: 16-09-0487A
Flooding Source: Pacific Ocean
On-line readers can view LOMC [here](#)

Type: LOMR-OAS
FIRM Panel 0393F
Revision Date: March 16, 2016
FEMA Case Number: 16-09-0989A
Flooding Source: Waikapu Stream
On-line readers can view LOMC [here](#)

Type: LOMA
FIRM Panel 0391E
Revision Date: April 8, 2016
FEMA Case Number: 16-09-1209A
Flooding Source: Sheet Flow
On-line readers can view LOMC [here](#)

Type: LOMR-FW
FIRM Panel 0588G
Revision Date: April 15, 2016
FEMA Case Number: 16-09-0956A
Flooding Source: Kamaole Gulch
On-line readers can view LOMC [here](#)

Hawaii County

Type: LOMA
FIRM Panel 0890C
Revision Date: January 21, 2016
FEMA Case Number: 16-09-0794A
Flooding Source: Palai Stream
On-line readers can view LOMC [here](#)

Type: LOMA
FIRM Panel 0890C
Revision Date: February 19, 2016
FEMA Case Number: 16-09-0990A
Flooding Source: Waiakea Stream
Waiakea Tributary
On-line readers can view LOMC [here](#)

Type: LOMR-FW
FIRM Panel 0880C
Revision Date: February 26, 2016
FEMA Case Number: 16-09-0694A
Flooding Source: Alenaio Stream
On-line readers can view LOMC [here](#)

Type: LOMA
FIRM Panel 0167C
Revision Date: March 7, 2016
FEMA Case Number: 16-09-1074A
Flooding Source: Unnamed Stream No.1
On-line readers can view LOMC [here](#)

Kauai County

Type: LOMR-FW
FIRM Panel 0311E
Revision Date: November 20, 2015
FEMA Case Number: 15-09-2544A
Flooding Source: Omao Stream
On-line readers can view LOMC [here](#)

Type: LOMR-VZ
FIRM Panel 0352F
Revision Date: November 12, 2015
FEMA Case Number: 16-09-0378A
Flooding Source: Pacific Ocean
On-line readers can view LOMC [here](#)

Type: LOMA
FIRM Panel 0352F
Revision Date: November 12, 2015
FEMA Case Number: 16-09-0391A
Flooding Source: Pacific Ocean
On-line readers can view LOMC [here](#)

HOW TO CHECK THE STATUS OF LOMC APPLICATIONS

If you submitted a LOMC application through Online LOMC, you may check the status of your application by logging into your [Online LOMC account](#). The application status is listed on the homepage after you log in. For more information, view the application status definitions.

If you submitted a request for a LOMC through the mail using the paper MT-1, MT-2, MT-EZ forms or used the eLOMA application process, visit the [Status of Map Change Requests](#) webpage for more information.



Continued from Page 1 "NFIP Eligibility in Jeopardy Due to §HRS 46-88"

Why is the National Flood Insurance Program (NFIP) important to the State of Hawaii?

- ♦ The State of Hawaii has been a participating NFIP community for over 35 years. The partnership has reduced flood risk through floodplain management and financial protection with the availability of flood insurance. Property owners with a 30 year mortgage have over a 25% chance of flooding in SFHAs.
- ♦ The NFIP calls for sound floodplain development to protect lives and investments from flooding with the overall goal of reducing the community's vulnerability and exposure to flood related damages.
- ♦ State and Local participating communities are afforded the sale of federally-backed flood insurance through the NFIP.

What are the potential impacts if the State of Hawaii is suspended from the NFIP?

- ♦ Federally-backed Flood Insurance will no longer be available for sale in the State of Hawaii;

Statewide Policy Count ¹ :	60,199
Total Insurance In-Force ¹ :	\$13,422,059,200
Total Insurance Paid Out To-Date ¹ :	\$87,418,025

- ♦ State and Local participating communities are eligible for Federal Disaster Assistance in the event of a Presidential Disaster Declaration; If the State of Hawaii is no longer participating in the NFIP, certain forms of Federal Disaster Assistance may not be available to government, businesses, and individuals to aid in recovery; It is estimated that Federal Disaster Assistance made available to the State of Hawaii since 1980, has totaled over \$400 million dollars.
- ♦ Pursuant to the Flood Disaster Protection Act of 1973, Federally regulated lending institutions are mandated to require the purchase of flood insurance for the protection of improved real property located in SFHAs; If federally-backed flood insurance is no longer available, lenders may recall current mortgages in these high risk flood areas.
- ♦ In the State of Hawaii, approximately 109,582² acres are in a SFHA. New federally backed mortgages may not be issued in these area if flood insurance is not available.

¹ Source: FEMA's Community Information System as of 3/31/2016;

² Source: FEMA's effective and preliminary Digital Flood Insurance Rate Maps (DFIRM)

For more information, contact the State of Hawaii, Department of Land and Natural Resources, Engineering Division, NFIP Program at (808) 587-0230 or dlmr@hawaii.gov. To download a copy of the FAQ handout, visit: <http://bit.ly/HRS46-88FAQ>



Useful Links:

[Newly Mapped Fact Sheet](#)

[Elevation Certificates: Who Needs Them and Why](#)

[Floodsmart.gov](#)

[Hawaii Flood Hazard Assessment Tool](#)

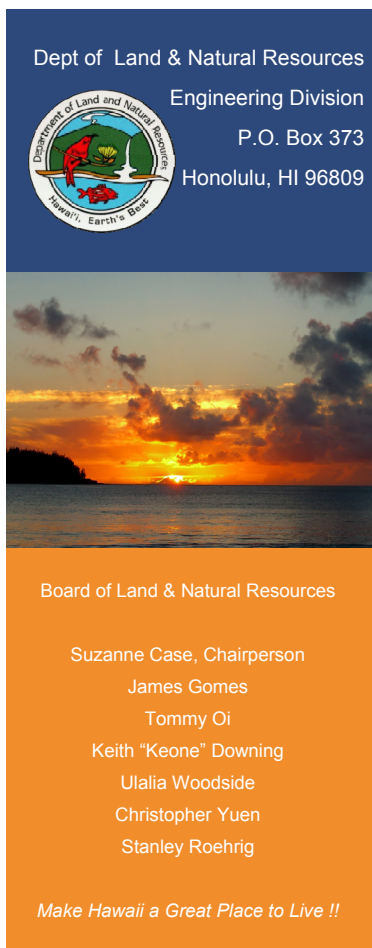
ATTENTION: MAUI COUNTY PROPERTY OWNERS !!

If your property was newly mapped into a high risk flood zone (A or V zone) as a result of the November 4, 2015 FEMA Flood Insurance Rate Map change last year, you have **less than 3 months** to take advantage of the "Newly Mapped Procedure". The "Newly Mapped Procedure" is a lower cost option which will be rated using the Preferred Risk Policy (PRP) rates, but with a higher Reserve Fund Assessment and Federal Policy Fee, for the first 12 months following the map revision. After the introductory year, the rate will begin its transition to a full-risk rate with annual rate increases of no more than 18 percent each year.

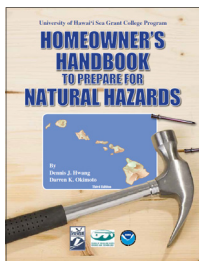
Even though a property owner does not have a mandatory purchase requirement, it may be advantageous for those who meet the "Newly Mapped into a SFHA" criteria to obtain a flood insurance policy in order to secure the lower rating option before eligibility expires. For property owners who meet the "Newly Mapped into the SFHA" eligibility and have plans to sell the property in the future, it would be beneficial to purchase this low cost policy before October 4, 2016 because it can later be transferred to a new property owner. This could be a valuable selling point when listing qualifying structures, as the new property owner can also enjoy the lower cost flood insurance premiums until FEMA revises their policies.

DON'T DELAY. DISCUSS YOUR OPTIONS WITH YOUR INSURANCE AGENT.





PUBLICATION CORNER



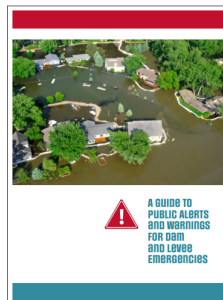
Homeowner's Handbook to Prepare for Natural Hazards

With Hurricane Season upon us, the third edition of the Homeowner's Handbook to Prepare for Natural Hazards will provide useful tips on how to prepare for a natural hazards in Hawaii such as tsunami and hurricanes. The third edition includes four brand new appendices that address installing storm panel screws, reroofing, securing photovoltaic systems, and ways to get involved with community resilience efforts.

Highlights

- Lessons learned from Hurricane Iselle are included regarding emergency supplies, evacuation planning, and wind damage on roofs from less than hurricane strength winds.
- Meteorological information on Hurricane Ana is provided by the National Weather Service and has implications regarding the need for all islands to prepare.
- Appendix C - Storm Panel Screws - For an easy way to attach plywood or honeycomb panels to small windows.
- Appendix D - Asphalt Shingle Roofs and Ridge Vents - Methods following guidelines in the FEMA Home Builder's Guide are presented to make asphalt shingle roofs and ridge vents stronger.
- Appendix E - Solar Photovoltaic - Covers what the homeowner needs to know to ensure the sturdy attachment of solar photovoltaic cells to the house.
- Appendix F - Working with the Community - Once you are prepared, learn how you can help the community with the State and County Civil Defense and Emergency Management Agencies as well as the American Red Cross.

New Guide to Public Alerts and Warnings for Dam and Levee Emergencies



Risk reduction can be achieved through various means, including improved approaches to flood warning and emergency management. The USACE Dam and Levee Safety Programs have recently engaged with renowned social scientists Dennis Mileti and John Sorensen, in the areas of warning and evacuation to better understand what motivates people to take protective actions during an emergency event.

"A Guide to Public Alerts and Warnings for Dam and Levee Emergencies" summarizes the results of that effort. It is targeted at anyone involved in the emergency management process, including emergency management officials, public information and affairs personnel, emergency first responders, dam and levee owners and operators, media, public elected officials and other people or organizations involved with or interested in local emergency management.

Download Guide: http://silverjackets.nfmp.us/Portals/0/doc/WarningGuidebook_USACE.pdf?ver=2015-08-10-213008-520

Download Handbook: <http://seagrant.soest.hawaii.edu/sites/default/files/publications/>

