



Wai Halana

Hawaii Flood News

Hawaii Flood Hazard Assessment Tool

The State of Hawaii Department of Land and Natural Resources (DLNR) contracted Onyx Group to develop an online, GIS mapping application for the display and viewing of the National Flood Insurance Program (NFIP) database. This web application allows public users to view and search digital flood insurance rate map (DFIRM) for parcels throughout the state. The application employs an intuitive, user-friendly interface to query the underlying database and includes a reporting function for data output.

From a data standpoint, the application consists of geographic layers, associated attribute data, scanned raster data (images and maps) and tabular data. This data has been integrated into a comprehensive decision management system capable of responding to user queries.

Essentially, the web page is used in a step-by-step wizard fashion to retrieve information. Data is entered in a three step process to retrieve results. The user can query on either the county tax map key (TMK) or by address. If either a TMK or address is not known, a tool is available for users to visually zoom to the parcel of interest.



DLNR is pleased to announce the debut of Hawaii Flood Hazard Assessment Tool (FHAT). Interested users should visit: www.hawaiiinfip.org and click on the appropriate link to access the website. A separate browser window will open and the user will be prompted with a disclaimer dialog box. Upon acceptance of the disclaimer, the user will enter the FHAT.

The screen components consist of four sections: Header area, Toolbar area, Legend area, and the Map area.

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The current and selected past issues are also available at:

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

The Certified Floodplain Manager's Exam will be offered right here in Hawaii on August 14, 2008 from 1:30 pm - 4:30 pm at Kauai Hilton in Lihue.

To be a part of this Nationally Accredited Program and to take the August 14th exam, applicants must apply with the Association of State Floodplain Managers (ASFPM) at:

2809 Fish Hatchery Road
Madison, WI 53713

Phone: 608-274-0123

Fax: 608-274-0696

Email: asfpm@floods.org

Website: www.floods.org

(application forms downloadable)

Exam fees are \$340 for non-ASFPM members and \$100 for members.

To become a member of this elite organization, who's mission is to mitigate the losses, costs and human suffering caused by flooding and to promote the wise use of the natural and beneficial functions of floodplains, call ASFPM at (608) 274-0123 or visit their website (www.floods.org) for more information.

Stream Maintenance *Whose Responsibility is it?*

It's amazing the kind of items that are found in streams after a flood event. Did you know that flooding is one of the most common hazards in the United States? Flooding has caused millions of dollars of damage every year. One way we can help reduce the chances of being affected by a flood is to conduct routine stream maintenance. Many often think that stream maintenance is the responsibility of local government or the State. However, this is not always the case. The Hawaii Revised Statutes § 46-11.5 states:

“[§46-11.5] Maintenance of channels, streambeds, streambanks, and drainageways. *Notwithstanding any law to the contrary, each county shall provide for the maintenance of channels, streambeds, streambanks, and drainageways, whether natural or artificial, including their exits to the ocean, in suitable condition to carry off storm waters; and for the removal from the channels, streambeds, streambanks, and drainageways and from the shores and beaches any debris which is likely to create an unsanitary condition or otherwise become a public nuisance; provided that to the extent any of the foregoing work is a private responsibility the responsibility may be enforced by the county in lieu of the work being done at county expense, and any private entity or person refusing to comply with any final order issued by the county shall be in violation of this chapter and be liable for a civil penalty not to exceed \$500 for each day the violation continues; provided further that it shall be the responsibility of the county to maintain all channels, streambeds, streambanks, and drainageways unless such channels, streambeds, streambanks, and drainageways are privately owned or owned by the State, in which event such channels, streambeds, streambanks, and drainageways shall be maintained by their respective owners. [L 1986, c 121, §2] “*



The FEMA Library

To make a variety of resources easier to find on FEMA's Web site, the Information Resource Library (IRL) has been renamed the FEMA Library. The FEMA Library is a searchable web-based collection of all publicly accessible FEMA information resources, including CDs, DVDs, VHS tapes, audio tapes, disability resources, posters and display items, brochures, publications, guidance and policy papers, program regulations and guidelines, forms, slide presentations, and documents. Users can search using several options, including:

- Keyword
- Subject
- Audience category
- Hazard type
- Language
- Resource type
- Publication number

Search Criteria	
Keywords ?	<input type="text"/>
Subject ? Need help determining Subject?	ALL
Audience Category ? Need help determining Audience Category?	ALL
Hazard Type ? Need help determining Hazard Type?	Drought Earthquake Extreme Temperatures Fire Flooding Hurricane/Tropical Storm Industry Hardship Mudslide/Landslide Nuclear Severe Storm
Language ?	ALL
Resource Type ?	ALL
Accessible Format Available ?	<input type="checkbox"/>
Cost ?	<input type="checkbox"/>

Users also can view featured resources, survey the most downloaded resources, and explore new resources.

A single Resource Record in the FEMA Library can hold information in several media formats, such as PDF, TXT, and Word. The FEMA Library also can post large documents in sections or intact.

In addition to downloading electronic records, you also can order large files on CD. To use this option you must set up an account and register as a FEMA Resource customer. If you are already a registered customer on the FEMA Map Service Center Web site you can use your ID and password to order products through the FEMA Library.

If you would like to post a FEMA resource on your own Web site, we recommend that you send users to the FEMA Library by linking the title of the resource to the specific FEMA Library's Resource Record. Materials are continually updated, and by linking to the Resource Record you will ensure that you are directing people to the most current version. The FEMA Library is located online at www.fema.gov/library.



Read through your Home and Flood Insurance Policies, lately?

As quoted from Mortgage News Daily, “People who do not fully understand their homeowner’s or flood insurance policies would be wise to invest in a good life insurance policy as well. If a disaster strikes, the truth could kill you.”

It is very important that you understand what (and how much) your insurance policies cover and under what conditions are you eligible to file a claim.

What kind of insurance do I need?

If you don’t already know, Homeowner’s insurance does not cover for floods. You’ll need a separate flood insurance policy to insure your assets against this peril.

The website [Insure U - Get Smart About Insurance](http://insureu.org), sponsored by the National Association of Insurance Commissioners (www.insureonline.org/) provides consumer insurance information for those considering or buying insurance.



How much insurance do I need?

The first step in trying to figure out how much insurance you’ll need is to calculate the value of your home (excluding land value) and your contents. To determine the value of your home, you’ll need to calculate how much it will cost to replace if it were totally destroyed. For your contents, you’ll need to take a detailed inventory of your personal possessions. Often times, property owners will take pictures or video. It’s also important to save your receipts, especially for electronic equipment and high ticketed items.

How much should I insure?

That is a difficult question. We could insure for every possible peril and every personal belonging, but the cost to carry the insurance could empty our pocket books.

Insurance premiums will fluctuate for a variety of reasons. Deductibles play a role in the cost. Type of policy will also affect premiums.

A Replacement Cost (RC) policy will insure for the cost to replace the property with the same kind of material and construction without deducting for depreciation. On the other hand, an Actual Cash Value (ACV) policy will replace the cost of property at the time of the loss, less

the value of its physical depreciation. Mortgage News Daily gave an example of how to differentiate between RC and ACV.

“Even short of a total loss, the replacement cost versus actual cash value is a wrinkle that can throw policy holders into cardiac arrest. A replacement cost policy will pay for replacement or repairs based on the real life, real time price of materials and labor. For example, if a strong wind rips a large section of 25 year asbestos roofing shingles from your house, under an RC or replacement cost policy the insurance adjuster will process your claim as 20 squares (100 square feet each) of roofing shingles and roofing felt at \$1,880 including labor. Great, go out, hire a contractor, and get that roof patched or replaced (and insurance companies will usually take into account the matching factor; i.e., if the repaired roof is going to look sloppy due to color match or aging, they will pay to replace the entire roof.) However, if you have an actual cash value (ACV) policy the bottom line will be quite different.

If the insurance company determines that the roof is 12 years old they will figure you have had the companionship and protection of those 25 year roofing shingles for close to one half of their useful life and would certainly have to replace them in 12 to 15 years. Thus the insurance company is only willing to compensate for the remaining and assumed 13 years or so of life and will discount their payout according to a formula that takes that age into account. This could well result in a claim payment of \$670 for replacement of that aged roof rather than the \$1,880 indicated above.”

Flood insurance is not a valued policy. It will pay only up to the policy limit. So it is important that you periodically review your coverage amounts to ensure that they are consistent with current economy. To rebuild a house 10 years ago doesn’t necessarily cost the same today.

For more information on Flood Insurance, visit

www.floodsmart.gov

Make sure you and your family are properly insured before disaster strikes.





Preparing your Family Treasures

Storage

Store like materials together using the guidelines in the protecting section. Consider the likelihood of water damage and mitigate that by using water proof storage when possible. Duplicating family photos and documents and sharing them with other family members helps to provide a back up copy in another location. Consider storing duplicates of paper, photos, electronic files and images of other materials with family or friends in another city or state.

Location

The single most important decision you can make to mitigate damage from a future disaster is selecting an appropriate location for your most valued family treasures. Avoid basement and attic when possible. Consider the safest location based on the most likely threat; if flooding, avoid the basement; if tornado, avoid attics and outside walls. Are there certain times of the year when you are most vulnerable? Can you store some things offsite during those periods?

Another consideration is small disasters and prevention. Don't store valuable materials under water pipes and keep materials off the floor. If you must store items in the basement, don't put materials against an outside wall that may let in dampness. Small leaks that go undetected for a period of time can cause irretrievable damage through mold growth and staining. Be sure to check your storage at least twice a year to be sure there are no problems.

Emergency Plan

Just as you need an emergency plan for the family, you also need to think ahead to protect your treasures with a plan. Are there important documents you need to always have that are located in your house? Put those in a single safe place where you can easily collect them before evacuation. Make sure all responsible family members know this location and designate who is going to take the packet in the event of an evacuation. Arrange ahead of time where you will meet should you be separated.

Many family pieces may have considerable sentimental value but are not of high monetary value, such as children's artwork, family photos, paper documents and letters which can not be replaced but can be duplicated. Make copies and store them in another location, perhaps at the home of a relative who lives in another area of the country. The cost of duplication is minimal compared to the possible permanent loss of those family memories. For those pieces which cannot be replaced or have little monetary value provide the best protection possible. These pieces you may not want to insure if they are one of a kind and not replaceable. It may be better to spend money on upgrading their protective storage if they can't be duplicated.

Insurance

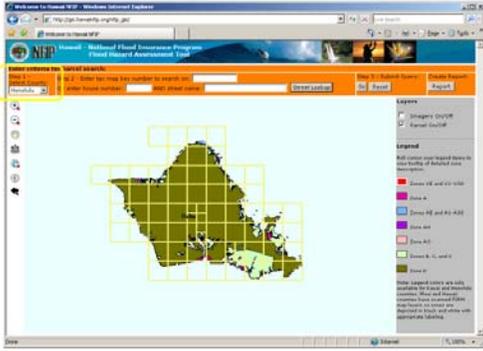
Insure for replacement value family heirlooms that are replaceable such as antique furniture. Document the condition of items you insure by taking digital photos and date stamping them. Store these images off site with family or friends and with a copy of the insurance policy number and the phone number of your insurance agent. These images can be very useful in establishing ownership of materials and for insurance restitution.

For valuable family treasures such as jewelry and art work ask your insurance agent about scheduling those items at market value and be sure to up date the values yearly.

Talk with your insurance agent so that you understand what your insurance policy covers. Most insurance policies distinguish water damage by the origin of water. For example broken pipes may not be covered, sewer backup often is not covered while damage caused by water from storms probably will be. Many areas of the country are covered by flood insurance only through a separate federal plan and not through commercial property insurance.

Know what your policy covers before you need restitution.





The header area contains the step-by-step procedures for searching for a property (parcel) by TMK or street address. Step 1 is to **Select County**. A drop-down box contains a selection for each county in the state. Available options are: Honolulu, Maui, Hawaii, and Kauai. Selecting a county immediately zooms the extent of the map to the appropriate county. For example, if the user selects Honolulu, the map refreshes itself displaying the extents of the City and County of Honolulu (i.e. Oahu). When the map refreshes, one thing to notice is some additional data layers have become visible. This is by design. Data layers with a high degree of precision and detail have been set to turn off at high scale ratios in order to improve performance. The yellow lines indicate the panel index grid. The colors overlaid on top of the island are the flood zones as depicted in the legend area.

The property search function can be accessed via one of two ways, either by **TMK** or by **street address**. Step 2 of the parcel search wizard allows the user to enter either a 9-digit TMK number or a street address. If the TMK is known, enter it as a 9-digit number (with no spaces or other punctuation) into the field shown. Click the **Go** button in Step 3 of the header bar which will locate the parcel.

If the TMK is not known, the user can enter a house number and/or street name to locate the TMK value. To search by an address, enter the first few letters of the street name into the field provided. Click the **Street Lookup** button and the field will be converted to a drop down list of street names matching the letters entered. Use this drop down box to select the appropriate street name. For example, entering in "koko" in the street name field as shown here:



At this point, the user can click the **Go** button in Step 3 of the header bar to have a pop up window display all parcels that match the street name selected. If a house number is entered, the results will further be filtered by the number entered. For house numbers with hyphens, enter the hyphen in the address as necessary. For example, for street address 94-1231 Ka Uka Blvd would be entered with the hyphen in the number. Note that the Street Lookup button must be clicked prior to searching for a parcel by address.

When the **Go** button is clicked, one of several things can happen. If the user entered a TMK value in the tax map key field, that TMK value is immediately searched upon. If the TMK is found in the database, the map zooms to the area around the parcel. If house number and street name values have been entered the system responds with a popup window displaying the street addresses and TMKs of those parcels matching the criteria entered. Within this popup window each row has a hotlink on the TMK to locate the parcel on the map. If the house number and street address criteria results in a single record being returned from the database, the parcel is zoomed to automatically.

When the parcel is identified, the parcel is labeled with a marker and the TMK value is shown as a label. At this point, the user can run a report by clicking the **Report** button. The **Report** button launches a new browser window containing information from a pre-formatted template. The map image is inserted into the page and dynamic data is pulled from the database to complete the report. The report output can then be printed using the browser's print command. The report will print to a predefined 8.5 x 11 inch portrait format page.

The final button in the header bar is the **Reset** button. Clicking the reset button clears any TMK or street address values entered, returns the street name drop down box to an input text box and refreshes the map to remove any marker symbol and labeling. It is a good idea to click the reset button in between all queries as to properly reset the system.



The City and County of Honolulu has embarked on a new program to bring awareness to the importance of stream maintenance. The Clean Stream Program encourages a pro-active solution to flooding. It also enlightens property owners of the liability if their streams are not properly maintained. For more information on the Program, visit: www.honolulu.gov/dfm/cleanstream.htm



Stream Maintenance

Department of Facility Maintenance

The Clean Stream Program

Get Involved NOW and be part of the solution. Your Neighbors will appreciate your kokua.

It's everyone's responsibility, and stream owners have the responsibility to ensure that streams are free from all debris that could prevent a clear waterway.

Clean streams can prevent severe damage from flooding that is caused when debris flows downstream and forms a clog in narrow parts of the stream or under a bridge.

Homeowners can be held financially liable if improper stream management on their property causes flooding upstream or downstream that damages their neighbors' property.

Important Links: [Mayor's Message](#) [Helpful Tips](#) [Download Brochure \(PDF\)](#) [Department of Facility Maintenance](#)

For more information or to report a potential flood problem call the **Clean Stream Hotline: 768-7890**

If a portion of the stream and/or it's adjacent stream bank is situated on private property, then the property owner is responsible for maintaining that portion of the stream. This would involve keeping it well maintained and refraining from conducting any unpermitted improvements. Caution should be exercised when clearing vegetation from stream banks. Some types of vegetation actually help keep stream banks in tact and reduces erosion.

Even tree cuttings and dead fallen trees can be a catalyst for flooding, as this type of debris reduces the stream capacity and can cause blockage at bridge or cul-

vert crossings. Additionally, well maintained streams should not be littered with old tires, car batteries, or other forms of garbage. According to the Hawaii Revised Statutes § 46-11.5, each County has the power to enforce the maintenance of channels, streambeds, streambanks, and drainageways in private property. Failure to comply with County orders may result in a civil penalty not to exceed \$500 for each day the violation continues.

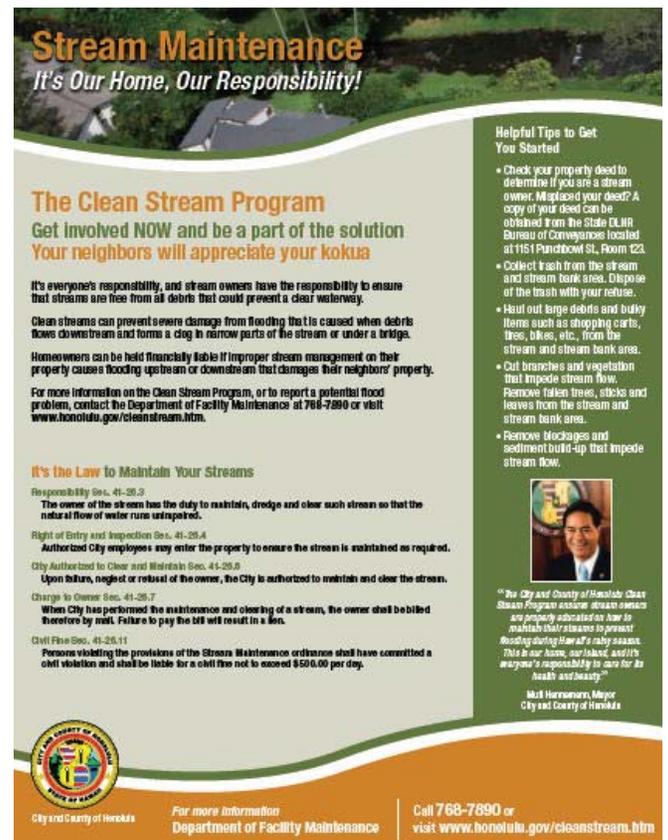
As for constructing improvements on your property, it is very important to obtain all the necessary approvals and permits. Some improvements that may enhance or improve your property, may actually be detrimental to the adjacent stream's capacity and function not to mention your newly constructed project.

Even though we may not own the stream itself, we shouldn't wait until a flood event to notify the proper authorities of potential hazards. Everyone needs to be proactive in keeping Hawaii streams well maintained.

Keep in mind, even with the best maintenance plan in effect, a stream can still overtop its banks for a combination of reasons. Some of these factors can include, but are not limited to: insufficient capacity of the stream, debris buildup in streambed and/or along the stream banks, and increased development in the areas surrounding the stream. However, maintaining our streams can definitely reduce the impacts from flooding



Get involved today !!!



Stream Maintenance
It's Our Home, Our Responsibility!

The Clean Stream Program

Get involved NOW and be a part of the solution
Your neighbors will appreciate your kokua

It's everyone's responsibility, and stream owners have the responsibility to ensure that streams are free from all debris that could prevent a clear waterway.

Clean streams can prevent severe damage from flooding that is caused when debris flows downstream and forms a clog in narrow parts of the stream or under a bridge.

Homeowners can be held financially liable if improper stream management on their property causes flooding upstream or downstream that damages their neighbors' property.

For more information on the Clean Stream Program, or to report a potential flood problem, contact the Department of Facility Maintenance at 768-7890 or visit www.honolulu.gov/cleanstream.htm.

It's the Law to Maintain Your Streams

Responsibility Sec. 41-29.3
The owner of the stream has the duty to maintain, dredge and clear such stream so that the natural flow of water runs unimpeded.

Right of Entry and Inspection Sec. 41-29.4
Authorized City employees may enter the property to ensure the stream is maintained as required.

City Authorized to Clear and Maintain Sec. 41-29.6
Upon failure, neglect or refusal of the owner, the City is authorized to maintain and clear the stream.

Charge to Owner Sec. 41-29.7
When City has performed the maintenance and clearing of a stream, the owner shall be billed therefor by mail. Failure to pay the bill will result in a lien.

Civil Fine Sec. 41-29.11
Persons violating the provisions of the Stream Maintenance ordinance shall have committed a civil violation and shall be liable for a civil fine not to exceed \$500.00 per day.

Helpful Tips to Get You Started

- Check your property deed to determine if you are a stream owner. Misplaced your deed? A copy of your deed can be obtained from the State DLNR Bureau of Conveyances located at 1151 Punchbowl St., Room 123.
- Collect trash from the stream and stream bank areas. Dispose of the trash with your refuse.
- Haul out large debris and bulky items such as shopping carts, tires, bikes, etc., from the stream and stream bank area.
- Cut branches and vegetation that impede stream flow. Remove fallen trees, sticks and leaves from the stream and stream bank area.
- Remove blockages and sediment build-up that impede stream flow.

"The City and County of Honolulu Clean Stream Program asks stream owners to properly subdivide their lots to maintain their streams to prevent flooding during heavy rain events. This is our home, our island, and it's everyone's responsibility to care for it healthily and safely."

Maui Hironaka, Mayor
City and County of Honolulu

City and County of Honolulu | For more information Department of Facility Maintenance | Call 768-7890 or visit www.honolulu.gov/cleanstream.htm



*Make Hawaii a Great
Place to Live !*

Dept. of Land and Natural Resources
Engineering Division
P.O. BOX 373
Honolulu, Hawaii 96809

Board of Land and Natural Resources

Laura H. Thielen, Chairperson
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Dr. Samuel Gon II
Robert Pacheco
Jerry Edlao
Taryn Schuman
Ron Agor



Keyword: **Reasonably Safe from Flooding**

Source: www.fema.gov/plan/prevent/floodplain/nfipkeywords/reasonably_safe.shtml

Definition/Description:

The community (a.k.a. Counties) must review all permit applications to determine whether the proposed building sites will be reasonably safe from flooding as one of the minimum National Flood Insurance Program (NFIP) floodplain management requirements established by NFIP regulations. If the community determines that a site is not reasonably safe from flooding, it must require mitigation actions be undertaken to reduce the structures flood damage potential.

When an individual applies for a Letter of Map Revision Based on Fill (LOMR-F), the community will be required to determine that the filled area is reasonably safe from flooding before the LOMR-F will be issued. As indicated in the LOMR-F requirement "reasonably safe from flooding" means: base flood waters will not inundate the land or damage structures to be removed from the Special Flood Hazard Area (SFHA) and that any subsurface waters related to the base flood will not damage existing or proposed buildings.

NFIP Requirement:

- [60.3 \(a\)\(3\) - Reasonably Safe from Flooding](#)
- [65.5\(c\) - LOMR-F Requirements](#)

Special Topic Resources:

- Reasonably Safe From Flooding Certification
[Technical Bulletin 10, Ensuring that Structures Built on Fill In or Near Special Flood Hazard Areas are Reasonably Safe From Flooding \(FIA-TB-10\)](#) p. 4

