

Village of Tiki Island Flood Protection Information

www.villageoftikiisland.org

The Village of Tiki Island is committed to providing its citizens with the knowledge and resources they can use to protect themselves and their property from flood hazards. Education, preparedness, and prevention are valuable and proven tools that help communities become resistant to natural disasters.

Regardless of where you live, you are at risk for flooding, and Tiki Island's location on the Gulf Coast leaves it especially vulnerable to tropical storms and other weather-related events. The links and information below have been created to serve as an "all inclusive" source for property owners in Tiki Island in order to increase awareness about flood hazards.

Floodplains and Flood Maps

Floodplain Functions

Floodplains provide a wide range of benefits to human and natural systems. They serve as flood storage and conveyance, and reduce flood velocities and flood peaks. Water quality is improved through the soil and vegetation's ability to filter out nutrients and impurities from runoff and process organic wastes. Floodplains and wetlands provide breeding and feeding grounds for fish and wildlife, create and enhance waterfowl habitat, and protect habitats for rare and endangered species. They provide open space, aesthetic pleasure, and areas for active uses such as parks and playgrounds.

Flood Hazard

Tiki Island is surrounded by west Galveston Bay on the south and Jones Bay on the north. The probability of flooding is due more to storm surge and rising tides created by tropical storms rather than rain since the intricate canal system of the island drains rain into the bays. The longest stretch for rainwater to flow may be approximately 150 to 200 feet with most lot lengths being approximately 100 feet. Hurricane Ike in September 2008 caused widespread damage throughout the community including wind damage, flooding, and erosion.

Flood Insurance Rate Maps

Flood Insurance Rate Maps are issued by FEMA to identify different levels of flood risks. The Flood Insurance Rate Maps are primarily used for flood insurance purposes, but they also provide a basis for Tiki Island to regulate development within those areas. The location of a property relative to certain flood zones indicates what restrictions may be placed on new and substantially improved construction. FEMA's [Flood Insurance and Flood Maps](#) explains the different flood zones and how they relate to risk. <http://www.floodsmart.gov/toolkits/flood/downloads/FloodInsuranceFloodMaps-11%2019%2010.pdf>

The most recent and currently effective maps for Tiki Island are dated November 1, 1985. For homes that were built prior to this date, it may be helpful for citizens to have access to all of the Galveston County maps to know what flood zone was in effect at the time of construction. Knowing this information can be critical if there is a dispute with a mortgage lender or insurance agent. The FEMA Map Service Center is a good resource for both current and historical maps.

The Flood Insurance Rate Map for the Village of Tiki Island shows that the entire city is within a floodplain. The majority of the floodplain is in a V20 zone meaning a high-velocity zone, where wave height is at its highest and where structures in those zones are more susceptible to storm surge. The elevation in those zones varies between 15 and 16 feet; however, the Village of Tiki Island requires that

the minimum elevation of the pilings must be at 17 feet (see “Building in the Floodplain”). There is one area of the city that is an A14 zone with an elevation of 12 feet.

Flood Insurance Rate Maps are available for viewing at the Tiki Island City Hall located at 802 Tiki Drive, or directly through [FEMA's Map Service Center](https://msc.fema.gov). <https://msc.fema.gov> The maps are used by the Village for compliance purposes, and are also used by insurance agents for rating a structure for flood insurance purposes. The Building Inspection staff can also provide citizens with other mapping information such as flood depths, past flooding problems in certain areas, and historical flooding.

FEMA and its contractors are in the process of updating the flood maps for Galveston County. Citizens can follow FEMA’s progress on the mapping updates via the following site: www.riskmap6.com. More information on the changing flood maps is available in the FEMA document entitled [Understanding the Changes to Your Community’s Flood Insurance Rate Map](#).
<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=4936>

The Texas Natural Resources Information System (TNRIS) is gathering data for a high water mark inventory for the state. The public is encouraged to send their pictures, emails, and other information to the agency at this email: highwatermarks@tnris.org. High water marks, or debris lines, can establish a basis for understanding typical flooding events, and can help experts estimate the kind of damage future floods may bring.

Building in the Floodplain

All development in the Tiki Island floodplain requires a permit per [Chapter 14](#) (https://www.municode.com/library/tx/tiki_island/codes/code_of_ordinances?nodeId=COOR_CH14EN) of the Code of Ordinances. Development includes, but is not limited to, all new construction, filling, grading, and paving. Substantially damaged or improved structures, where the cost of repair (regardless of the cause of damage) or improvements to a structure equals or exceeds 50% of the building’s market value, also require building permits and elevation certificates, and are held to the same standards as new construction.

Communities participating in the National Flood Insurance Program must regulate to minimum standards in order to provide subsidized flood insurance to their citizens. In some cases, Tiki Island has chosen to go beyond the minimum standards in order to provide further protections to its citizens. One higher standard is that the lowest floor elevation of all new construction on pilings needs to be at 17 feet above base flood elevation. Another requirement is that enclosures below the base flood elevation can be no greater than 299 square feet. Any enclosure below the base flood elevation can only be used for parking, storage, or building access. Homeowners are informed of this requirement and must sign a non-conversion letter agreeing not to convert their enclosures to habitable use. Any development that is non-compliant with this requirement is subject to enforcement measures by the Village, as well as significantly more expensive flood insurance.

Contact the Tiki Island Building Inspector at 409-935-1427 for advice before you construct or place anything in the floodplain to ensure that the proper regulations are followed. Any development in the floodplain without a permit is illegal, and such activity should be reported to the Building Inspector. Permit information can be obtained at 802 Tiki Drive in City Hall. Elevation certificates on some properties in the floodplain are on file and may be requested from the Tiki Island Building Inspector. For more information, please download the following resources:

[Home Builder’s Guide to Coastal Construction](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=2138>

[Recommended Residential Construction for Coastal Areas: Building on Strong and Safe Foundations](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1853>

[Design and Construction Guidance for Breakaway Walls below Elevated Coastal Buildings \(TB 9\)](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1722>

[Free-of-Obstruction Requirements \(TB 5\)](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1718>

[Corrosion Protection of Metal Connectors in Coastal Areas \(TB 8\)](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1721>

[Elevator Installation \(TB 4\)](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1717>

[Flood Damage-Resistant Materials Requirements \(TB 2\)](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1580>

Drainage System Maintenance

Tiki Island is designed such that all rainwater will drain into the canals. Drains in Tiki Island are checked before, during, and after storms to maintain proper drainage. They are also checked periodically to make sure they are free of any restrictions or debris. Citizens should do their part to keep ditches free of debris, and not to allow grass clippings, oil, and other contaminants from getting in storm sewer inlets or in the canals. Dumping pollutants and waste will adversely affect the water quality of Galveston Bay. It is illegal in Tiki Island to dump any type of debris into the canals or surface drainage systems per the Chapter 34 ordinance. Call City Hall at 409-935-1427 to report any dumping.

To assist in preventing flooding problems, the Village of Tiki Island does not allow any construction to impede surface drainage from the streets (highest elevation) to the canals (lowest elevations). Since Tiki only has surface storm drainage, it is important that all drainage easements not be restricted; however, there are drainage easements on all properties (lots) that are not allowed to be restricted.

Property Protection and Assistance

Rather than wait for a flood to occur, you can act now to protect your property from flood damage. Even if you've never flooded before, in the life of a 30-year mortgage, there is a 26% chance of experiencing a flood if a property is located in the floodplain. Various retrofitting techniques are available to help minimize flooding such as elevating structures above the minimum requirements, proper construction and use of breakaway walls, lattice, or louvers to include any or all construction below the base flood elevation. The goal is never to put your pilings or columns (the foundation) at risk of collapse or displacement. Options in A-Zones are to build to or exceed current codes, constructing barriers out of fill or concrete, or possibly flood proofing to make the building watertight. The Tiki Island Building Inspector located at 802 Tiki Drive is available to make site visits to answer any questions citizens may have on how to safeguard their homes against flooding damage.

Because of Tiki Island's susceptibility to hurricanes and other tropical storms, measures that protect against high winds such as storm shutters or reinforced garage doors, should also be considered. The Tiki Island Building Inspector can provide homeowners with information on how to select a qualified contractor, and can give homeowners advice on the best retrofitting techniques or flood protection method to use. You can also download the following materials from the FEMA website:

[Avoiding Hurricane Damage: A Checklist for Homeowners](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=3340>

[Against the Wind: Protecting Your Home from Hurricane and Wind Damage](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1641>

[Floodproofing for Non-Residential Structures](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=3581>

[Reduce Your Risk from Natural Disasters](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=2476>

[Protecting Building Utilities from Flood Damage](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1750>

[Homeowner's Guide to Retrofitting](#)

<https://www.fema.gov/media-library/assets/documents/480>

Flood Insurance

Basic homeowner's insurance policies do not cover damage from floods. Tiki Island participates in the National Flood Insurance Program, which means that federally subsidized flood insurance is available to everyone in the city. The purchase of flood insurance is highly recommended. Remember there is a 30-day waiting period before the policy becomes effective. Some people have purchased flood insurance because it was required by the bank or loan company when they obtained a mortgage or home improvement loan. Usually these policies just cover the building's structure and not the contents. Policies are available to cover contents also. Remember that a flood insurance policy must be renewed every year.

It is also critical for citizens of Tiki Island to understand that flood insurance is rated by the lowest floor. This is important to note because if citizens defy the Village's ordinance of leaving the bottom floor enclosure as only storage, access, or parking and instead convert the room into habitable space, then those structures will be rated as having that enclosure as the bottom floor – a change that will significantly increase the premium required for flood insurance. Even though the citizens benefit from a 10% discount (over \$200,000 savings annually) on their flood insurance because of the Village's participation in the Community Rating System, non-compliant structures are not eligible to receive that discount. The cost of being non-compliant with the Village is just too high a price to pay.

The following FEMA publications may also provide more information:

[Things You Should Know about Flood Insurance](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1618>

[Summary of Coverage](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=3011>

[Cheaper Flood Insurance: 5 Ways to Lower the Cost of Your Flood Insurance Premium](http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=3060)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=3060>

[Mandatory Purchase of Flood Insurance Guidelines](http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=2954)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=2954>

[Flood Insurance Claims Handbook](http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=2184)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=2184>

Flood Safety and Recovery

It is important to know the difference between a flood WATCH and a flood WARNING. A flash flood watch is flooding that is *possible* in your area. A flash flood warning is flooding that is *already occurring* or *will occur* soon in your area. The best time to make sure you are ready for the next storm event is before one is headed your way. Make an emergency supply kit for your home that contains the following supplies:

- Non-perishable foods (at least a three-day supply) and water containers
- More than one flashlight and extra batteries
- Candles and matches
- First-aid kit, along with any prescription medicine
- Extra plywood (preferably heavy, pre-cut, and pre-drilled) to cover windows
- Plastic sheeting (for water leaks)
- Battery-powered radio (and/or a NOAA Weather Radio)
- Cell phone with chargers
- Copies of personal documents (birth certificates, insurance policies, pertinent medical information, deed/lease to home)
- Extra cash
- Camera for photos of damage
- Pictures of your most valuable possessions (TV, furniture, jewelry, electronic equipment, appliances, etc.). These (and the item receipts) will come in handy to the insurance agent if the items are damaged by the flood event.

Flood Safety Tips

It is a good idea to have an emergency plan in place, and to follow these guidelines regarding safety.

- Learn the safest route from your home or business to higher safer ground.
- If Emergency Management Officials tell you to evacuate or leave your home, go immediately to a safe shelter, hotel, or relative's house. Evacuation maps can be found on the Houston-Galveston Area Council website at [www.h-gac.com/taq/hurricane/documents/2016-zip-zone-map\(large\).pdf](http://www.h-gac.com/taq/hurricane/documents/2016-zip-zone-map(large).pdf).
- Make sure your family and employer know where you can be reached if you must leave your home in an evacuation.
- Before you leave turn off all utilities, gas, and electricity at the main switch. Stay away from power and electrical lines. Be alert for gas leaks.

- Do not walk through flowing water. Drowning is the number one cause of flood related deaths. Flood waters can also contain contaminants and pests (i.e., snakes).
- Currents can be deceptive; six inches of moving water can knock a person off his feet.
- Do not drive through a flooded area. More people drown in their cars than in any other location, and it only takes two feet of water to move a car. Remember [Turn Around Don't Drown!](#)
<http://tadd.weather.gov/>
- Visit www.disasterhelp.gov for more information on flood preparation.

The Recovery Process

Returning to your home after a major storm event can sometimes be overwhelming. FEMA has numerous publications on how homeowners can recover from a flood. Please click on the links below for more information:

[After the Flood Fact Sheet](#)

<http://www.floodsmart.gov/toolkits/flood/downloads/TPsAfterFlood-08-2010.pdf>

[Mold & Mildew: Cleaning up Your Flood Damaged Home](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=3049>

[Coping with a Flood - Before, During and After](#)

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1502>

For more information on flood safety, please visit www.redcross.org or www.disasterassistance.gov.

For More Information...

Go to any of the following links to learn more about floodplain management and disaster recovery:

[Galveston County Office of Emergency Management](#)

www.gcoem.org

[FloodSmart: The Official Site of the National Flood Insurance Program](#)

www.floodsmart.gov

[Federal Emergency Management Agency \(FEMA\)](#)

www.fema.gov

[FEMA National Flood Insurance Program \(NFIP\)](#)

www.fema.gov/business/nfip/

[Texas General Land Office \(GLO\)](#)

www.glo.texas.gov

[Texas Commission on Environmental Quality \(TCEQ\)](#)

www.tceq.com

[Texas Division of Emergency Management \(TDEM\)](#)

www.txdps.state.tx.us/dem/

[Texas Water Development Board \(TWDB\)](#)

www.twdb.state.tx.us

[Texas Natural Resources Information System \(TNRIS\)](#)

www.tnr.is.org

[United States Army Corps of Engineers \(USACE\) - Galveston District](#)

www.swg.usace.army.mil

[United States Geological Survey \(USGS\)](#)

www.usgs.gov

[National Oceanic Atmospheric Administration \(NOAA\)](#)

www.noaa.gov

[National Weather Service \(NWS\)](#)

www.weather.gov

[National Hurricane Center \(NHC\)](#)

www.nhc.noaa.gov