

# CITY OF DEER PARK

## Annual Floodplain Management Outreach Project

2020

City of Deer Park  
Public Works Department  
Floodplain Management  
Division

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Deer Park, TX 77536



# What is Floodplain Management

The Floodplain Management Division manages all development in the floodplain of the City of Deer Park by reviewing plans, issuing permits, monitoring and inspecting construction activities, as required by the City's Code of Ordinances.

Flooding is generally the most common and costliest type of disaster Deer Park experiences, but standard homeowner's insurance does not cover flooding, so it's important to have protection from damage associated with flooding.

Deer Park's Floodplain Management Divisions administers the National Flood Insurance Program (NFIP) for the City of Deer Park. NFIP offers flood insurance to homeowners, renters and business owners if their community participates in the program, providing hundreds of thousands of dollars in flood insurance coverage for Deer Park homes and business annually. Participating communities agree to adopt and enforce floodplain management ordinances that meet or exceed FEMA requirements.

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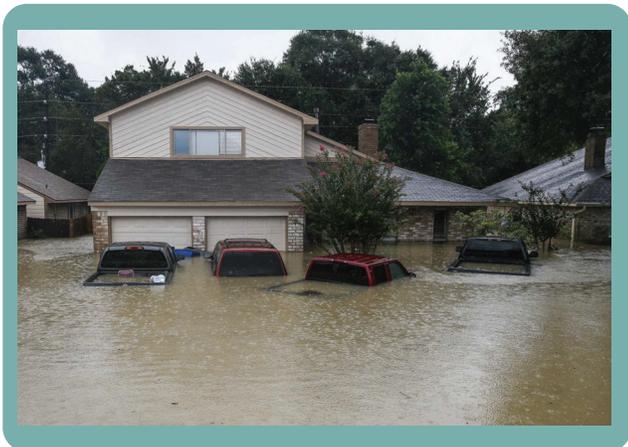
To be covered by a flood insurance policy (for the structure and/or contents), a property must be in a community that participates in the NFIP. To qualify for the NFIP, a community adopts and enforces a floodplain management ordinance to regulate development in flood hazard areas. The objective of the ordinance is to minimize the potential for flood damage to future development. Today over 22,500 communities in 56 states and territories participate in the NFIP, Deer Park is one of them.

The NFIP has been effective in requiring new buildings to be protected from damage by a 1% chance flood, also known as the 100-year or base flood. However, flood damage still results from floods that exceed the base flood, from flooding in unmapped areas, and from flooding that affects buildings constructed before the community joined the NFIP.

Under the Community Rating System (CRS), communities can be rewarded for doing more than simply regulating construction of new buildings to the minimum national standards. The CRS provides flood insurance premium rate deductions to policyholders in recognition of the fact that their communities implement activities that exceed the minimum NFIP requirements.

Local floodplain management activities must be described, measured and evaluated by the

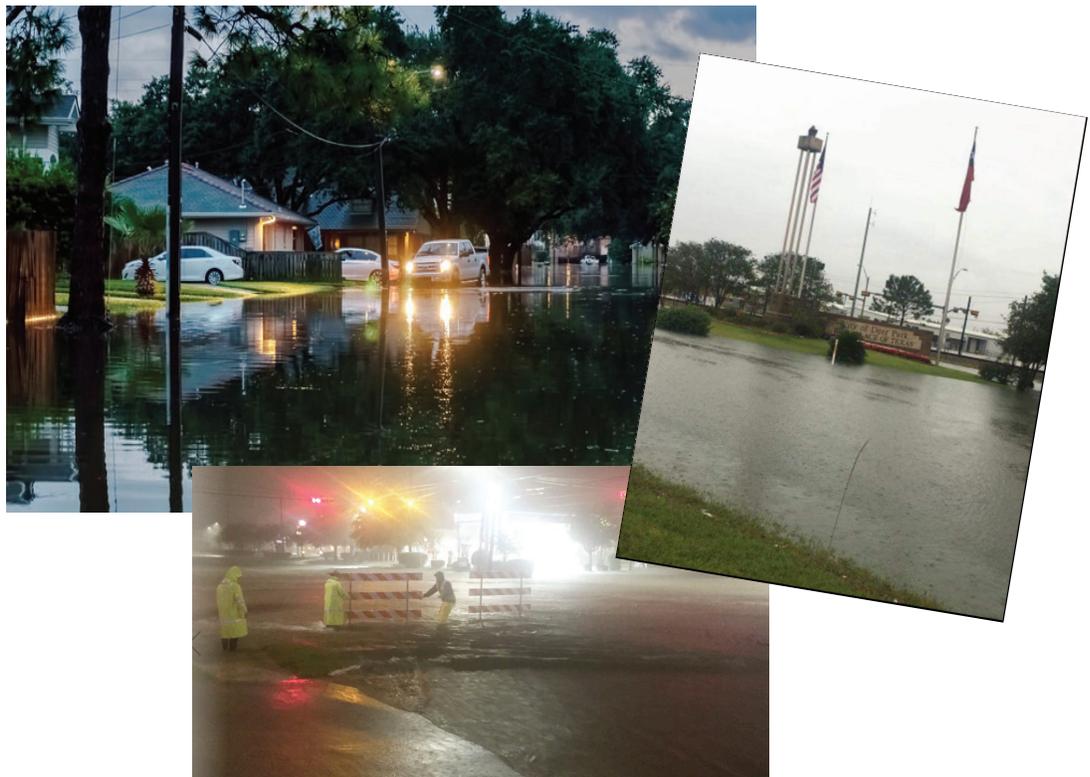
CRS. The CRS sets forth creditable activities and requirements and the credit points are assigned to each activity. Points range from the lowest score of 10 (which offers \$0 in premium savings) to a score of 1 which offers a community a 45% reduction in flood insurance premiums. Deer Park was rated as a class 8 community but in 2017 moved to a class 7 which means citizens of Deer Park receive a 15% discounted premium. We continue to work hard to bring that to an even higher reduction.



## Deer Park's Historical Flooding

In southeast Texas, most flooding is associated with hurricanes and tropical storm activity, however it doesn't take a tropical event to cause flooding. Deer Park experienced flooding during Tropical Storm Allison (2001), Tropical Storm Erin (2017) and Hurricane Harvey (2017), but we also experienced flooding from heavy rain events, most notably in 1979, 1981, 1998, 2006 and 2008. Several of these storms resulted in 100s of homes flooding.

It's important to stress that any home could flood, regardless of whether or not your in a designated high-risk area. For example, several homes in Deer Park's Heritage Addition and Deer Meadow's Subdivisions have flooded, on more than one occasion, and both are considered to be low-risk areas on FEMA FIRM maps.



## Deer Park's Natural Flood Hazards

Floods are among the most frequent and costly natural disasters in the U.S. Harris County is unique in that its flat terrain, large amounts of impervious cover (concrete), slowly absorbing soil and potential for thunderstorms, tropical storms, and hurricanes all combine to form ideal conditions for flooding. Due to its humid-subtropical climate and proximity to the coast, Deer Park is susceptible to a large amount of rainfall that can often be too great for its infrastructure and bayous to handle. Once the City's ditch and storm sewer networks are inundated with storm water runoff, streets become secondary drainage facilities.

Deer Park has two major watersheds, Armand Bayou and San Jacinto River. The drainage on the north end of town flows through Boggy Bayou and Patrick's Bayou tributaries to the Houston Ship Channel and then on to San Jacinto River. The south side of town drains through Willow Springs tributary on to Armand Bayou. They all eventually make their way to the Galveston Bay. The topography of Deer Park is extremely flat and most of our city has been developed which leaves very little natural vegetation and results in heavy urbanization.

## Why Does My Street Flood?

Many older subdivisions were built prior to our current understanding of flooding potential and prior to current regulations that restrict certain uses of flood-prone land. Street and storm sewers are typically designed for normal rainfall events and, when heavy rains fall, the systems are overloaded. Water will begin to pond in the streets and then try to flow overland to try to get to a ditch, creek or bayou, sometimes flooding homes along the way. Occasional street flooding is to be expected. Persistent and frequent street flooding may be an indication that the drainage system is old and undersized, or is in need of maintenance.

In most areas, the streets are considered to be a part of the drainage system. During a typical rainfall event, water will flow through storm sewers located underneath the street or in roadside ditches to a drainage channel such as a creek or bayou. When the capacity of the storm sewers or roadside ditches is exceeded, the street itself will hold the water until the storm sewer or roadside ditch has additional room to drain the water.

## What is A Flood Hazard Area?

Everyone lives in an area with some flood risk - it's just a question of whether you live in a high-risk, low-risk or moderate-risk flood area. Flood zones are indicated in a community flood map. Each flood zone describes the flood risk for a particular area, and those flood zones are used to determine insurance requirements and cost. Moderate to low-risk flood hazard areas are designated on the Flood Insurance Rate Map (FIRM) with the letters B, C and X, in these areas, the risk



of being flooded is reduced, but not completely removed. One in three insurance claims come from moderate to low-risk flood areas. Property owners in moderate to low-risk areas are eligible for lower cost flood insurance known as preferred Risk Policies.

High-risk flood areas begin with the letters A or V on the FEMA FIRM maps. These areas face the highest risk of flooding. If you own a property in a high-risk zone and have a federally backed mortgage, you are required to purchase flood insurance as a condition of that loan.

## What Flood Zone is My Property In?

The Deer Park Floodplain Management Division provides a map information service which enables all residents to determine the flood zone of a specific property. Paper copies are available for viewing but you can also access the information online. See information below:

**Contact us to help with your floodplain questions.**

**In Person:** City of Deer Park - City Hall  
Public Works Dept.  
710 E. San Augustine  
Deer Park, TX 77536

**Via Phone:** 281-478-7239

**Via Email:** [PublicWorks@deerparktx.org](mailto:PublicWorks@deerparktx.org)

**Web:** [www.deerparktx.gov/publicworks](http://www.deerparktx.gov/publicworks)

**Access the interactive FEMA flood map and simply enter your address to see what zone you're in:**  
<https://msc.fema.gov/portal/home>



## **About the Mandatory Purchase of Flood Insurance**

**The NFIP:** The National Flood Insurance Program (NFIP) is a federal program enabling property owners in participating communities to purchase flood insurance on eligible buildings and contents, whether they are in or out of a floodplain. This community participates in the NFIP, making federally backed flood insurance available to its property owners.

The NFIP insures most walled and roofed buildings that are principally above ground on a permanent foundation, including mobile homes, and buildings in the course of construction. Property owners can purchase building and contents coverage from any local property and casualty insurance agent. To find a local insurance agent that writes flood insurance in your area visit [www.floodsmart.gov](http://www.floodsmart.gov).

**Mandatory Purchase Requirement:** Pursuant to the Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994, the purchase of flood insurance is mandatory for all federal or federally related financial assistance for the acquisition and/or construction of buildings in Special Flood Hazard Areas (SFHAs). An SFHA is defined as any A or V flood zone on a Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM).

The mandatory purchase requirement also applies to secured loans from such financial institutions as commercial lenders, savings and loan associations, savings banks, and credit unions that are regulated, supervised, or insured by federal agencies, such as the Federal Reserve, the Federal Deposit Insurance Corporation, the Comptroller of Currency, the Farm Credit Administration, the Office of Thrift Supervision, and the National Credit Union Administration. It further applies to all loans purchased by Fannie Mae or Freddie Mac in the secondary mortgage market.

Federal financial assistance programs affected by the laws include loans and grants from agencies such as the Department of Veterans Affairs, Farmers Home Administration, Federal Housing Administration, Small Business Administration, and FEMA disaster assistance.

**How it Works:** When making, increasing, renewing, or extending any type of federally backed loan, lenders are required to conduct a flood zone determination using the most current FEMA FIRM to determine if any part of the building is located in an SFHA. If the building is in an SFHA, the federal agency or lender is required by law to provide written notification to the borrower that flood insurance is mandatory as a condition of the loan. Even though a portion of real property on which a building is located may lie within an SFHA, the purchase and notification requirements do not apply unless the building itself, or some part of the building, is in the SFHA. However, lenders, on their own initiative, may require the purchase of flood insurance even if a building is located outside an SFHA. Up to 25% of all NFIP flood losses arise from outside SFHAs (B, C, and X Zones).

Under federal regulations, the required coverage must equal the amount of the loan (excluding appraised value of the land) or the maximum amount of insurance available from the NFIP, whichever is less. The maximum amount of coverage available for a single-family residence is \$250,000 and for non-residential (commercial) buildings is \$500,000. Federal agencies and regulators, including government-sponsored enterprises, such as Freddie Mac and Fannie Mae, may have stricter requirements.

## What To Do Before a Flood

- 1. Make a Plan** for your household, including your pets, so that you and your family know what to do, where to go, and what you will need to protect yourselves from flooding and COVID-19.
- 2. Build a “Go Kit”** of supplies you will need if you have to quickly evacuate your home. Include medications, pet supplies, first aid kit, extra batteries, etc. Since you do not know where you will be when an emergency occurs, prepare supplies for home, work and cars.
- 3. Purchase Flood Insurance.** Most homeowners insurance does not cover flood damage. Do an annual “insurance check-up” with your agent to make sure you have the right coverage. Remember, most flood insurance requires a 30-day period before the coverage is effective. Don’t wait until a storm is in the Gulf to purchase flood Insurance.
- 4. Sign up of for weather alerts** and our community’s warning system, CodeRED. The City of Deer Park uses the CodeRED system to deliver critical time-sensitive Communications such as severe weather warnings, evacuations notices, shelter-in-place notices, etc. Visit [www.deerparktx.gov](http://www.deerparktx.gov) to information on how to register with CodeRED.
- 5. Take a Household Inventory.** Take photos and videos of all major household items and valuables. Retain these documents in a safe place because they are important when filing insurance claims.
- 6. Store Important Documents.** Save copies of birth certificates, passports, medical records, and insurance papers in a safe, dry place. Keep original documents in a watertight safety deposit box.
- 7. Have Emergency Supplies on Hand** in the event you do not have time to evacuate. After an emergency, you may need to survive on your own for several days. Being prepared means having your own food, water and other supplies to last for several days.

**Did you know? When flooding is imminent or predicted, National Flood Insurance Program (NFIP) policyholders are eligible to receive up to \$1,000 to purchase “loss avoidance supplies” like tarps, sandbags and more.**

**Limiting Flood Damage to Your Home**

Your National Flood Insurance Program policy will cover and reimburse certain actions you take to minimize damage to your home and belongings before a flood. You may be eligible for reimbursement up to \$1,000 for materials to protect the property and up to \$1,000 to move insured property away from an imminent flood. Keep all of your receipts and share them with your insurance company to support your flood loss avoidance claim. You do not have to pay a deductible for flood loss avoidance claims.

**ELIGIBLE EXPENSES**

|   |   |   |
|---|---|---|
| <b>SAND BAGS</b><br>                   | <b>WATER PUMPS</b><br>                   | <b>BUILDING TEMPORARY LEVEES</b><br> |
| <b>MOVING AND STORAGE EXPENSES</b><br> | <b>LUMBER &amp; PLASTIC SHEETING</b><br> | <b>LABOR</b><br>                     |

**STARTING A CLAIM**

Contact your flood insurance agent or insurance company. Here's what you'll need:

|  |  |  |
|--|--|--|
| <b>YOUR POLICY NUMBER</b><br> | <b>RECEIPTS</b><br> | <b>RECORD OF TIME SPENT WORKING</b><br> |
|--|--|--|

For more information on flood loss avoidance, visit [FloodSmart.gov](http://FloodSmart.gov).

FEMA  
May 2020

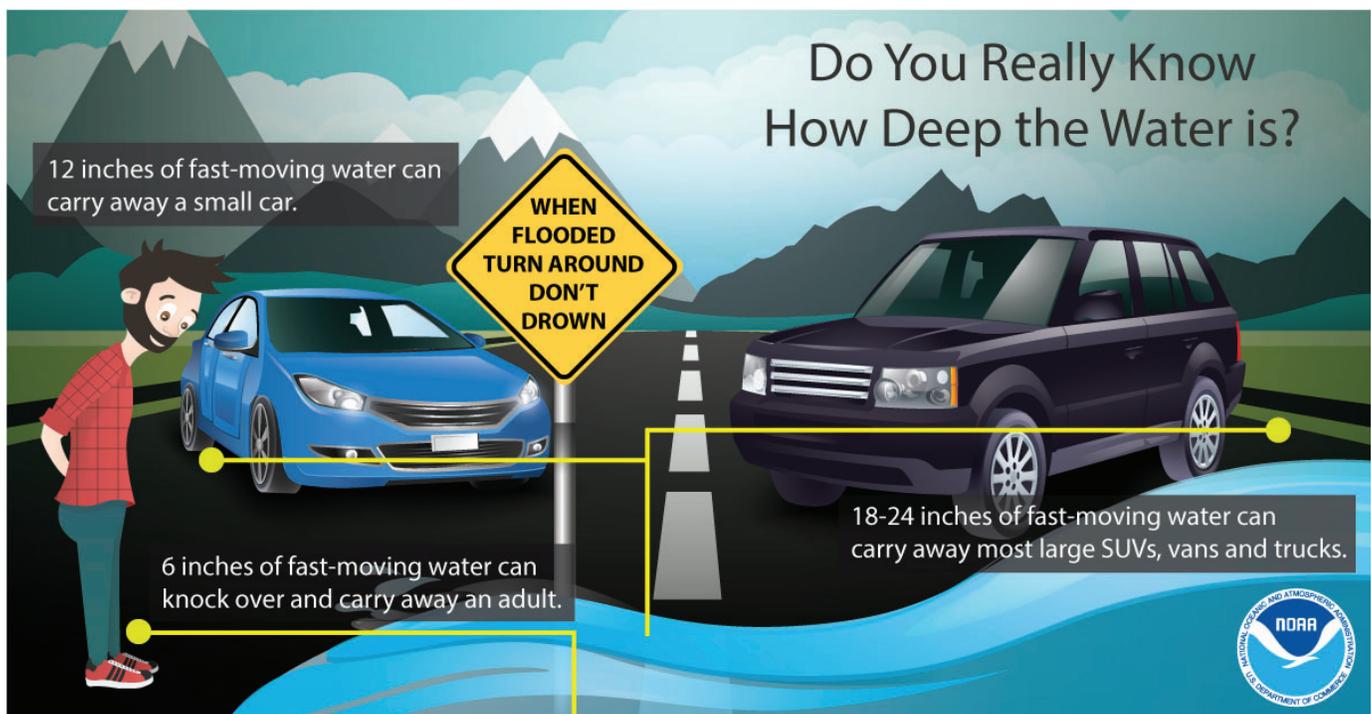
## Steps to Minimize Your Flood Losses

1. Clear Debris From Gutters. Make sure that you clear any debris from gutters and downspouts to avoid an accumulation of water.
2. Elevate or Move Your Furniture. When flooding is predicted or imminent, move furniture and valuables to a safe place, such as an attic or the highest floor of your home.

## During a Flood Event

When a flood is imminent or occurring, your priority should be the physical safety of you, your loved ones and your pets.

1. Stay alert by monitoring the local news and weather reports.
2. Have a communication plan ready in the event of a power outage.
3. Do not walk, swim or drive in flood waters. **TURN AROUND, DON'T DROWN!** Just 6-inches of moving water can knock you down, and one foot of moving water can sweep your vehicle away.
4. Stay off bridges over fast moving water.
5. Depending on the type of flooding:
  - Evacuate if told to do so.
  - Move to higher ground or a higher floor.
  - Stay where you are.





## After the Flood

Having flood waters enter your home is every homeowner's nightmare. Given the fact that Deer Park is centrally located near the Gulf of Mexico, the Houston Ship Channel, Boggy Bayou, Willow Creek Bayou, etc., means the possibility of flooding is a scary reality.

If the flood was serious enough for you to evacuate your home, be sure you stay safe upon your return. Check for any structural damage, such as warping, loosened or cracked foundation elements, cracks and holes before entering the home and contact the utility companies if you suspect damage to water, gas, electric and sewer lines.

## Things to Know

**SHUT DOWN THE POWER:** Be aware of the risk of electrocution. Do not touch electrical equipment that is wet or if you are standing in water. If it is safe to do so, turn off the electricity, even if the power isn't working in your home. It is a good idea to go to your fuse box and turn off the main, plus all of the individual breakers, by doing so, if the power is reactivated, you are not at risk of mixing standing water and electricity.

**TAKE PICTURES:** Before you remove any water or make repairs, fully document the damage for your insurer by taking photos or video. Take photos and/or videos, including structural and personal property damage inside and outside your home, before discarding items. Remember to take photos of the inside of closets and cabinets. Your adjuster will need evidence of the damage to prepare your claim. If you start removing water or making repairs before you photograph damage, you could potentially decrease the extent of your coverage.

**RECORD SERIAL NUMBERS:** If you haven't done so before, be sure to take photos of the serial numbers for large appliances, such as washers, dryers and refrigerators.

**PROTECT YOUR HEALTH:** Even if the water in your home is clear, it could be contaminated by sewage or household chemicals. Wear waders or waterproof boots as well as rubber gloves, also be cautious to protect from COVID exposure by washing hands often. Be sure to throw out any food that may have come into contact with flood waters.

**REMOVE STANDING WATER:** Once you get the OK from your insurer to remove the water use a sump pump and wet vac to remove the water. Open doors and windows, if possible, to allow fresh air to circulate and aid in the drying process.

**MITIGATE MOLD DAMAGE:** Mold can develop within 24 to 48 hours of a flood, says Ashley Small of FEMA, so remove wet contents, including carpeting and bedding, as soon as possible. If an item has been wet for less than 48 hours, it may be salvageable. However, you'll need to decide whether it holds enough monetary or sentimental value to try to do so. And notify your insurance company before removing items to ensure that you're not affecting coverage. Always photograph the flood-soaked items.

Mold growth can be controlled on surfaces by cleaning with a non-ammonia detergent or pine oil cleaner and disinfecting with a 10% bleach solution.

Take photographs before removing wet wallboards and baseboards, insurers will want to see the height of any water damage to walls. Carefully poke holes, at floor level, in the drywall to allow any water trapped behind it to escape.

**SECURE THE PROPERTY:** As the homeowner, it is your responsibility to secure the property so no additional damage occurs. Put boards over broken windows and secure a tarp as protection if the roof has been damaged. Again, take photographs to prove to the insurance company that you have done everything possible to protect your home against further damage.

# 8 TIPS TO CLEAN UP MOLD

-  **Protect Yourself**  
Put on personal protective equipment (gloves, mask, goggles) to protect your eyes, nose, mouth, and skin.
-  **Toss!**  
Take it out! Anything that was wet with flood water and can't be cleaned and dried completely within 24 to 48 hours should be taken outside. Take photos of discarded items for filing insurance claims.
-  **Air it out**  
Open all doors and windows when you are working, and leave as many open as you safely can when you leave.
-  **Circulate**  
When electricity is safe to use, use fans and dehumidifiers to remove moisture.
-  **Don't mix cleaners**  
If you use cleaning products, do not mix cleaning products together. **DO NOT** mix bleach and ammonia because it can create toxic vapors.
-  **Scrub surfaces**  
Clean with water and a detergent. Remove all mold you can see. Dry right away.
-  **Don't cover it, remove it**  
Painting or caulking over mold will not prevent mold from growing. Fix the water problem completely and clean up all the mold before you paint or caulk.
-  **Dry it up**  
Dry your home and everything in it as quickly as possible – within 24 to 48 hours if you can.

<http://www.cdc.gov/mold/cleanup.htm>



# FLOOD SAFETY TIPS



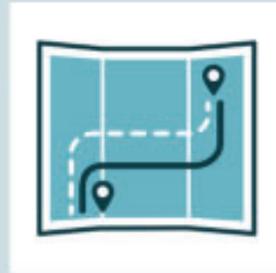
## BEFORE



STAY INFORMED  
ON LOCAL NEWS



PREPARE AN EMERGENCY  
BAG WITH FOOD, DRUGS,  
DOCUMENTS,  
FLASHLIGHT, PET ITEMS



KNOW HOW TO EVACUATE  
AND SAFE  
ALTERNATIVE ROUTES

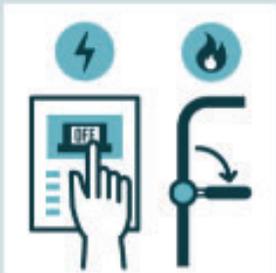


LEAVE BEFORE FLOODING  
STARTS



IN FLOOD PRONE AREAS:  
KEEP USEFUL ITEMS AT  
HOME (SANDBAGS,  
LADDER, ROPE...)

## DURING THE FLOOD



DISCONNECT  
ELECTRICITY AND GAS



DON'T WALK OR DRIVE  
IN FLOOD WATER



GET TO AN HIGHER  
GROUND



FOLLOW  
EVACUATION ORDERS



FREE CATTLE  
AND LEAD ANIMALS TO  
A SAFER PLACE

## AFTER



AVOID CONTACT WITH  
FLOOD WATER  
AND SWIMMING



DON'T TOUCH  
POWER LINES



DON'T GO HOME OR TO  
DISASTER AREAS UNTIL  
IT IS DECLARED SAFE



COMMUNICATE  
TO YOUR FAMILY THAT  
YOU ARE SAFE



WHEN BACK HOME:  
CLEAN AND DISINFECT  
SURFACES AND ITEMS



FEMA

# Before You Begin Repairs



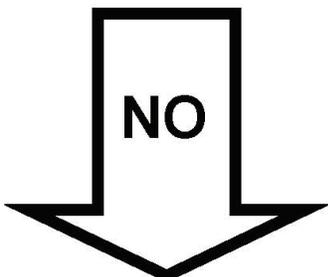
Because each Parish and City adopt their own building codes and floodplain regulations, you should ***ALWAYS*** ask your Local Building Official and Floodplain Administrator these questions ***BEFORE*** beginning any repairs to your property.

**1** Is your structure located in the “Designated Floodplain?”



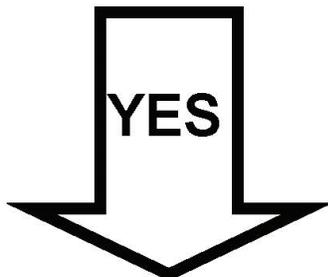
Repair with local building code permit.

**2** Does your structure meet the current floodplain management codes (e.g., elevation) for your jurisdiction?



Repair with local building code permit.

**3** Did your property suffer “Substantial Damage” as determined by your local officials?



Repair with local building code permit.

Elevate and repair per building codes including current local floodplain management requirements.

*Important Notice*  
FEMA is not a permitting Agency and does not give permission to rebuild or repair by your receipt of a Disaster Grant, Loan, or Flood Insurance Claim.

## Protection of our Drainage System

Many local urban flood problems are caused when shopping carts, yard waste, trash and other debris is dumped into ditches, detention basins or other drainage structures. This debris can clog culverts, divert flows, and reduce the conveyance capacity of our drainage system. Deer Park prohibits the disposal of all debris within our drainage system. The Public Works Department is responsible for enforcing this regulation.



**Help protect our storm drainage system. No dumping of trash, debris, brush fill dirt, etc. in undesignated areas.**





**For more information visit: [FloodSmart.gov](https://FloodSmart.gov) and [Ready.gov/floods](https://Ready.gov/floods)**

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