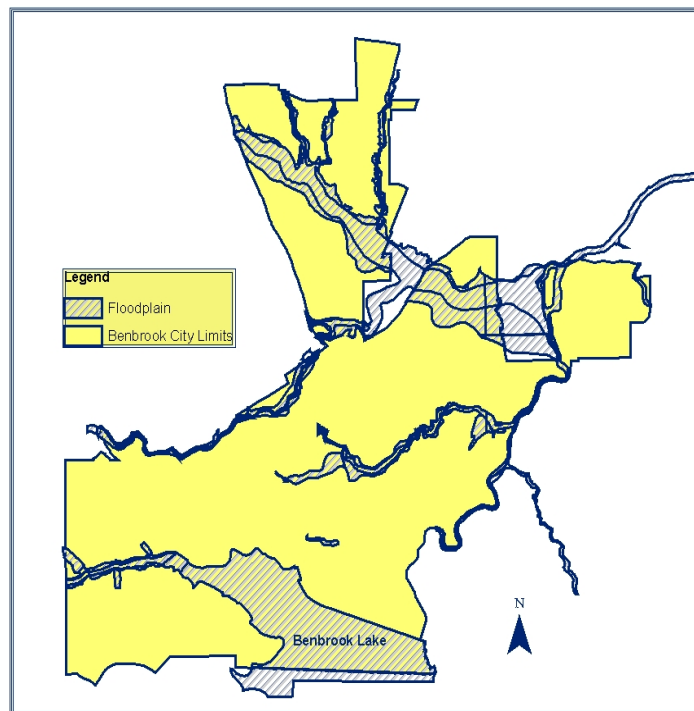


FLOODPLAIN MANAGEMENT IN BENBROOK

The City of Benbrook is committed to minimizing the loss of life and property associated with flooding events. Education and prevention are valuable and proven tools that help communities become resistant to these natural disasters. The City of Benbrook recognizes that its entire community is susceptible to flooding, not just those structures located within Special Flood Hazard Areas (SFHA's). The Special Flood Hazard Area is commonly called the 100-year floodplain, but is more accurately the area that has a one percent probability of flooding in any given year. The following information has been provided to help inform property owners located within the SFHA, flood prone areas and also all property owners within the City of Benbrook.



LOCAL FLOOD HAZARDS

Benbrook covers 12 square miles in southwestern Tarrant County near the confluence of the Clear Fork Trinity River and Mary's Creek, one of its major tributaries. The area consists of gently rolling hills, with flatter valleys and plateaus along the major streams and on some upland areas.

Although localized street and lot-to-lot flooding from runoff produced by thunderstorms can cause significant flooding in Benbrook, the most severe flooding has been caused by flash flooding along tributaries of the Clear Fork Trinity River, including Mary's Creek, Timber Creek, Plantation East Creek, Plantation West Creek, Willow Bend Creek and Mont Del Creek. The last major flood along the Clear Fork Trinity River was in May

1949, prior to the construction of Benbrook Dam. Major flooding occurred along Mary's Creek in April 1922, May 1949, January 1961, and June 2004, with moderately flooding in March 2007. Flooding along Timber Creek was common until 1982, when the City began constructing a series of channel improvements. Plantation East Creek flooded in August 1974, July 1975, May 1989, March 1990 and May 1990, but has not flooded since the City began constructing a series of channel improvements in 1990. Plantation West Creek has flooded on numerous occasions, including June 2004, but should be protected with the completion of channel improvements in 2008. Willow Bend Creek in North Benbrook flooded regularly until channel improvements were completed in 1983. Mont Del Creek flooded regularly until the City worked with Fort Worth to construct an upstream detention pond in 2004.

To learn whether a house or property is within a Special Flood Hazard Area (SFHA), designated by the Federal Emergency Management Agency (FEMA), contact the Community Development Department at City Hall at 817-249-3000, email to info@cityofbenbrook.com, or use the "Interactive Maps" link located on the City Homepage.

FLOOD SAFETY

1. Learn the safest route from your home or business to higher, safer ground, but stay tuned to reports of changing flood conditions.
2. If emergency officials tell you to evacuate or leave your home, go immediately to a safe shelter, hotel or relative's house.
3. Turn off all utilities, gas and electricity at the main switch. Stay away from power lines and electrical lines. Be alert for gas leaks.
4. Do not walk through flowing water. Drowning is the number one cause of flood related deaths. Currents can be deceptive; six inches of moving water can knock you off your feet.
5. Do not drive through a flooded area. More people drown in their cars than in any other location. Vehicles also push water into homes and cause additional property damage.

FLOOD INSURANCE

In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer-funded disaster relief for flood victims and the increasing amount of damage caused by floods. Benbrook is one of about 20,000 communities across the United States that participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce future flood damage. In exchange, the NFIP makes Federally-backed flood insurance available to homeowners, renters, and business owners in Benbrook.

Flood damage has been reduced by nearly \$1 billion a year nationally through partnerships with communities, the insurance industry, and the lending industry. Further, buildings constructed in compliance with NFIP building standards suffer approximately 80 percent less damage annually than those not built in compliance. The NFIP is self-supporting for the average historical loss year, which means that operating expenses and flood insurance claims are not paid for by the taxpayer, but through premiums collected for flood insurance policies.

The purchase of flood insurance is highly recommended. Basic homeowner's insurance policies do not cover damage from floods, rising waters or water entering the house from the outside. Coverage for such losses is available only through a separate flood insurance policy. The City of Benbrook participates in the National Flood Insurance Program (NFIP) which means that federally subsidized flood insurance is available to everyone in the City. Remember there is a 30-day waiting period before a policy becomes effective. Some people have purchased flood insurance because it is 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. During the kind of flooding that happens in the City of Benbrook, there is usually more damage to furniture and the contents than there is to the structure. Remember that a flood insurance policy must be renewed each year.

Mandatory Purchase Requirement: To get Federally-secured financing to buy, build, or improve structures in Special Flood Hazard Areas (SFHAs, commonly called the 100-year floodplain) you will be required to purchase flood insurance. Lending institutions that are Federally-regulated or Federally-insured must determine if the structure is located in a SFHA and must require flood insurance. The mandatory purchase requirement applies to all forms of federal or federally related financial assistance for buildings located in a Special Flood Hazard Area (SFHA). This requirement affects loans and grants for the purchase, construction, repair, or improvement of any publicly- or privately-owned buildings in the SFHA, including machinery, equipment, fixtures and furnishings contained in such buildings. If a building is located in a SFHA, the agency or lender is required by law to require the recipient to purchase a flood insurance policy on the building.

Flood insurance is available to any property owner located in a community participating in the NFIP. All areas are susceptible to flooding, although to varying degrees, in fact, 25% of all flood claims in the United States occur in the low-to-moderate risk areas outside of Special Flood Hazard Areas.

There's a big difference between having to buy flood insurance because the law says you must and choosing to buy flood coverage because it's in your best interests to do so. FEMA recommends that all property owners purchase and keep flood insurance because it is the best means of recovery from flood damage.

For more information about flood insurance contact:

- www.fema.gov/nfip
- The Benbrook Public Library
- Contact your insurance agent.
- Contact the Benbrook Community Development Department.

COMMUNITY RATING SYSTEM

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS:

- reduce flood losses,
- facilitate accurate insurance rating; and
- promote the awareness of flood insurance.

For CRS participating communities, flood insurance premium rates are discounted in increments of 5%; i.e., a Class 1 community would receive a 45% premium discount, while a Class 9 community would receive a 5% discount, (a Class 10 is not participating in the CRS and receives no discount). The CRS classes for local communities are based on 18 activities organized under four categories:

- Public Information,
- Mapping and Regulations,
- Flood Damage Reduction, and
- Flood Preparedness.

As of 2006, Benbrook has a Class 6 rating which qualifies residents in a SFHA a 20 percent flood insurance premium discount and non-SFHA residents can receive a 10 percent discount. A Class 6 rating means that Benbrook is one of the top 14 percent of cities in the nation for flood management activities.

If you are required by your lender to purchase flood insurance because you are in a Special Flood Hazard Area, make sure you are receiving the 20 percent discount that Benbrook residents are entitled to receive because of the City's participation in the CRS.

PROPERTY PROTECTION

Rather than wait for a flood to occur, you can act now to protect your property from flood damage. Various steps are available to help minimize flooding. If the floor level of your property or structure is lower than the Base Flood Elevation (BFE) located on the City's Flood Insurance Rate Map (FIRM), consider ways to prevent flooding from occurring such as retrofitting your building. "Retrofitting" means altering your building to eliminate or reduce flood damage.

Retrofitting measures include:

- Elevating the building so that flood waters do not enter or reach any damageable portions of it,
- Constructing barriers out of fill or concrete between the building and flood waters,
- "Dry flood proofing" to make the building walls and floor watertight so water does not enter,
- "Wet flood proofing" to modify the structure and relocate the contents so that when flood waters enter the building there is little or no damage.

There are several good references on retrofitting in the Benbrook Public Library. Many of these will inform you about retrofitting techniques and help you decide which is best for you.

NATURAL AND BENEFICIAL FUNCTIONS

The City of Benbrook is a beautiful place to live. The undisturbed creeks and riparian areas provide a wide range of benefits to the human and natural systems. They provide flood storage and conveyance, reduce flood velocities and flood peaks. Water quality is improved through the wetland's ability to filter nutrients and impurities from runoff and process organic wastes. The local creeks and wetlands provide habitat for fish and wildlife. The floodplains are an important asset. They provide open space, aesthetic pleasure, and areas for active and passive uses.

FLOOD WARNING

Because most flooding occurs as flash floods in Benbrook, it is often difficult to provide advance warning before flooding actually occurs. If flooding may be imminent, the National Weather Service (NWS) will issue a flash flood watch if conditions are favorable for flash flooding events. A flash flood warning will be issued if flash flooding has occurred within the Tarrant County or the Benbrook area. The City of Benbrook will convey information on flash flood watches and alerts through the CodeRed System, which will send an automated telephone call to affected properties that have registered with the City. If there is an impending flood, the City can send an automated call to anyone with a land line in the affected area. The City may also use the tornado siren system to warn residents of impending weather events that may cause flash flooding. If an evacuation of the City is advised, the City of Benbrook will notify you through local radio and Cable TV as well as CodeRed.

Additionally, the City encourages residents to use NOAA weather radios and to monitor information from NOAA Weather Station Radio broadcasts weather information at 162.550 MHZ 24 hours a day. For more information on NOAA weather radios, go to <http://www.srh.noaa.gov/fwd/?n=radio>. The City participates in the StormReady program.

FLOODPLAIN DEVELOPMENT PERMIT REQUIREMENTS

All development in the City of Benbrook needs a permit. Contact the City of Benbrook's Inspections Department at (817) 249-3000 for advice before you build, fill, place a home or otherwise develop. The subdivision ordinance, flood hazard protection ordinance and the International Building Codes have special provisions regulating construction and other developments within floodplains. Without these provisions, flood insurance through the National Flood Insurance Program (NFIP) would not be available to property owners in the City of Benbrook. Any development in the floodplain without a permit is illegal and unauthorized activity should be reported to the City Engineer at (817) 249-3000.

SUBSTANTIAL IMPROVEMENT REQUIREMENTS

The National Flood Insurance Program (NFIP) requires that any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement, must conform or meet the same construction requirements as a new building and be constructed above the minimum Base Flood Elevation (BFE) listed on

Benbrook's Flood Insurance Rate Map (FIRM). The City considers a series of improvements cumulatively.

Substantial damage means damage of any origin sustained by a building or structure when the cost of restoring the building to its pre-damaged condition would equal or exceed 50% of the market value of the building before the damage occurred. Substantial damage is determined regardless of the actual repair work performed.

The City of Benbrook requires by ordinance that any substantial improvement or substantial damage improvement must have a building permit. Permit information can be obtained at the Inspection Department located at City Hall or by calling at (817) 249-3000.

DRAINAGE SYSTEM MAINTENANCE

It is illegal to dump any type of debris into a creek, stream, river or drainage channel in the City of Benbrook. This debris can become entangled in culverts and shallow streambeds, and can impede drainage causing the flow of water to back up. Citizens of Benbrook should also keep drainage channels on their property free of debris, foliage and vegetation that would impede the flow of water. Debris dumping should be reported to the City of Benbrook's Code Enforcement Office by calling (817) 249-6078.

FLOOD INFORMATION

Citizens of the City of Benbrook can obtain flood information concerning flooding, flood maps, mandatory flood insurance purchase requirements, flood insurance requirements and inquiries, and flood zone determinations from the City of Benbrook's Community Development Department located at City Hall at 911 Winscott Road, or by calling (817) 249-3000.

Elevation Certificates of certain properties in the Special Flood Hazard Areas (SFHA's) are available and on file at the Community Development Department and copies are available upon request. The City is developing a tool to access these records on the City's web page.

The U.S. Geological Survey currently has two stream gages located in Benbrook. Real time river gauge information can be obtained through the following websites:

Clear Fork Trinity River near Benbrook:

http://waterdata.usgs.gov/nwis/uv?site_no=08047000

Mary's Creek at Benbrook: http://waterdata.usgs.gov/nwis/uv?site_no=08047050

FLOOD PROTECTION ASSISTANCE

Concerned citizens and the general public can obtain information on flood protection assistance from the City Engineer's Office by calling (817) 249-3000. Flood protection assistance may include site-specific flood and flood related data, data on historical flooding in the neighborhood and similar information so inquirers can relate the flood threat to their problems.

List of Typical Services Provided:

- Make site visits to review flooding, drainage and sewer problems and provide specific advice to individual property owners.
- Provide names of contractors and consultants knowledgeable or experienced in floodplain permitting, retrofitting techniques and construction.
- Provide advice and assistance on retrofitting techniques, such as elevating buildings above flood levels or the Base Flood Elevation (BFE), dry flood proofing, wet flood proofing and protecting basements from sewer backup. Also, information on the installation of barriers, levees, berms and floodwalls around individual buildings or structures is available.

IMPORTANT USEFUL WEBSITES

City of Benbrook:

www.cityofbenbrook.com

Federal Emergency Management Agency:

www.fema.gov

(in Spanish)

www.fema.gov/spanish/

For kids

www.fema.gov/kids/

Floodsmart (NFIP):

www.floodsmart.gov or

<http://www.fema.gov/business/nfip/>

U.S. Geological Survey:

www.usgs.gov

National Oceanic and Atmospheric Administration:

www.noaa.gov

National Weather Service:

www.nws.noaa.gov or www.weather.gov

Association of State Flood Plain Managers:

www.floods.org