Tulsa is located in one of the most scenic natural areas of Oklahoma. Unfortunately, many locations within the city are at increased risk when torrential storms strike. Some of these areas are not in a designated floodplain.

In the 1970s and '80s Tulsa County had the most federal disaster declarations in the nation. In 1984, a flash flood caused $180 million in damages and 14 deaths. Since that time, Tulsa has made tremendous progress. Dozens of flood prevention projects have been completed and are under way. Tulsa has established an award-winning, comprehensive flood program that is cited as a national model. Overall, the risk of flooding has been substantially reduced - but not eliminated. Because of its climate and location, Tulsa can never be completely flood free.

Inevitably, Tulsa will flood again. Spring is our most vulnerable time.

The Tulsa Hazard Mitigation Citizens Advisory Committee meets to hear citizens ideas on flooding and drainage problems, and concerns related to other natural hazards.

The accompanying map shows Tulsa's creeks and rivers which periodically have flash floods. The flash floods usually have high velocities and are extremely dangerous. Tulsa has established an award-winning, comprehensive flood program that is cited as a national model. Overall, the risk of flooding has been substantially reduced - but not eliminated. Because of its climate and location, Tulsa can never be completely flood free.

Tulsa's storm sewers were designed to divert excess stormwater. Also, several drainage improvements serve as soccer fields and walking trails when they are not in use. Detention areas throughout the city are open to the public. Tulsa's creeks and rivers are habitats for wildlife.

There are temporary measures you may take to protect your property during a flood event. Plan ahead about where and how you will move furniture out of harm's way. Keep materials like sandbags, plywood, plastic sheeting and lumber handy for emergency waterproofing. Clear brush and debris away from storm drains and ditches.

The City of Tulsa's Customer Care Center at 311 to find ways to protect your property from flooding. Qualified City staff is available at the City's Development Services Department to discuss your options and to help you plan and build a safe project while complying with City Floodplain development policies. Get a permit when constructing in a flood prone area.

The City of Tulsa's permitting process is designed to ensure that all construction in Tulsa is safe. A permit is required for all new construction and most of the time you must obtain a permit for repairing or replacing existing features.

Before you begin construction, add up to your existing building, find out which permits are required by contacting the City's Development Services Department.

In addition to regular building permits, special regulations apply to construction in floodways and the Regulatory Floodplain. No construction, including filling, is allowed in the mapped floodway without an engineering analysis that shows the project will not increase flood damage elsewhere. Any activity outside the floodplain but within a natural or man-made watercourse also requires a permit.

A floodplain watershed development permit must be obtained from the City of Tulsa before commencing construction, landfill, or excavation in the floodplain. New buildings in the floodplain must be protected from flood damage, so our building code requires that new buildings be elevated at least one foot above the elevation of the City of Tulsa Regulatory Floodplain.

Homeowners who are planning substantial improvements should contact the Development Services Department for a residential building permit. Elevation or floodproofing may be required if you want to construct a substantial improvement (the cost of the improvement or add-on is 50 percent of the value of the existing building). A permit is also required for a repair if it is more than just cleanup after a storm. If your property is substantially damaged (50 percent or more of the value of the building), federal regulations may require you to elevate or floodproof before you can rebuild.

To report illegal floodplain development or to verify that proper permits are in place, contact the Customer Care Center. An inspector will investigate.

Tulsa's natural floodplains

Over the years, the City of Tulsa has completed many flood control projects to keep floodwaters from reaching buildings. The City also regularly maintains drainage ditches and storm sewers to prevent water from backing up into streets and homes. Despite these efforts, the risk of flooding has not been - and cannot be - completely eliminated. Therefore, businesses and property owners should make a plan to protect your business and property. You may want to see what your flood risk is by examining the detailed floodplain boundary maps in this atlas. To request a free, written flood zone determination contact the Customer Care Center and provide the correct address or legal description of your property.

In some cases, retrofitting existing buildings or retrofitting projects to projects to keep from adding to or creating new flood-prone areas is not practical. Therefore, city officials may require that you purchase flood insurance when you are selling or refinancing your property. Structural barriers such as levees and floodwalls may also be constructed to protect properties from floodwaters. Remember, get a building permit when constructing in flood prone areas.

A publication of the Federal Emergency Management Agency (FEMA), "Homeowner's Guide to Retrofitting: Six Steps to Protect Your Home from Flooding" (Publication 3612), includes information on technical and financial assistance. The book can be obtained free by calling 1-800-827-8055 or going online to http://www.fema.gov/media-library/assets/ document/3612. Free Internet access is available to library cardholders at all Tulsa County Library locations.

The map provides general guidance on the location of the Regulatory Floodplain within the City of Tulsa. It is not to be used for flood insurance or regulatory purposes. If you want to know your flood zone and need additional information, please contact (call) the City's Customer Care Center at 311.

The only change in sound during the three minute period may be an increase or decrease in volume that is caused by a change in wind direction or velocity. Hearing the three-minute "wailing" sound made by many police and fire vehicles in the Tulsa area is your warning to take the necessary steps to protect yourself from hazardous materials which can be released by industrial or transportation system accidents. Depending on the material involved, and on wind and weather conditions, a hazard may be posed for a small area or a large area of the community.

The sirens are only a part of Tulsa's warning systems which include local news media, NOAA Weather Radios (radios that are tuned to the National Oceanic and Atmospheric Administration's broadcast frequency), and even some local wireless phone and pager services.

Upon hearing either the "steady" or "waving" sirens, citizens should seek shelter in a sturdy building. Be prepared to move valuables to a higher location and to evacuate immediately, if necessary. Prepare a flood response plan that will help you think through all the details that demand attention after a flood watch or warning is issued. Writing down will help you remember everything, which is especially important when everyone in a house is a hurry and excited because a flood is coming. Put photocopies of inventory records, insurance policies, deeds, automobile titles, wills, telephone numbers, bank and credit card account numbers, and other valuable papers at a location away from your house, such as a safe deposit box.

If you know a flood is coming you should shut off the gas and electricity and move valuable contents of your home to a safe place. If you're not sure about the water quality, call your local utility companies.

Turn Around, Don't Drown!

When the flood comes, the safety of your family is the most important consideration. Flooding waters can rise rapidly, so you should be prepared to evacuate before the water covers your pre-arranged escape route. Do not drive through a flooded area. Most flood deaths occur in cars. Don't drive around road barriers; the road or bridge may be washed out. Do not walk through flowing water. Currents can be deceptive; six inches of moving water can carry you off your feet. Use a pole or stick to check that the ground is still there before you enter standing water.

If you're caught in the house by floodwater, move to the second floor or to the roof. Take warm clothing, a flashlight, and portable radio with you. Safety is an issue after the flood, too. Before entering a building, check for structural damage and turn off outside gas lines to your meter. Let the building air out for several minutes before entering.

Watch for electrical shorts and live wires while turning off the main power switch. Stay away from power lines and electrical wires. The number-two flood killer after drowning is electrocution. Electricity can travel through water.

Cover broken windows and doors in the roof or walls to reduce any health hazards. Take pictures of items being damaged and report them to the insurance company. Take measures to prevent the growth of mold and bacteria that may grow in floodwater.