



Floodplain Management Plan 2021-2026

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INTRODUCTION

The City of Grand Prairie is located in Texas and situated partially within both Dallas and Tarrant Counties. The City’s boundary also extends into Ellis County. Grand Prairie is centrally located in the Dallas-Fort Worth-Arlington Metropolitan Statistical Area and has a population of 194,543, per 2019 U.S. Census. The City has a total area of 81 square miles, of which 72 square miles is land and 9 square miles, or 11%, is water. The West Fork of the Trinity River and two major tributaries, Johnson Creek, and Mountain Creek, flow through Grand Prairie.

The City's northern border lies 5 to 10 minutes south of the Dallas/Fort Worth International Airport. The eastern boundary is 12 miles west of Downtown Dallas and the western boundary 15 miles east of Fort Worth. Passing east and west through Grand Prairie and linking the City with major markets are Interstate 30, a strong entertainment and business corridor, and Interstate 20, which is developing as a significant retail and corporate location.

Because of its central location and proximity to air and highway transportation infrastructure, Grand Prairie is also a well-established distribution center. Quick access to the Dallas-Fort Worth International Airport, large local markets of Dallas and Fort Worth, and rail and interstate highways continue to attract new construction of warehouse, distribution, and manufacturing buildings.

Recent industrial, hotel and multifamily developments have taken up large tracts of land in and around the City, yet additional open land remains in proximity to Grand Prairie, and southward. The southernmost section of the City around Joe Pool Lake is attracting high-end residential housing.

STEP 1. ORGANIZE AND PREPARE THE PLAN

The Floodplain Management Committee, or *Committee*, is composed of representatives from an equitable and diverse cross section of the community, including a mortgage lending company, insurance agency, interested citizens, and City staff. Committee members are listed in Table 1, below.

TABLE 1. FLOODPLAIN MANAGEMENT COMMITTEE

The Floodplain Management Committee was formally recognized by City of Grand Prairie City Council on June 1, 2021. By formal resolution, the City of Grand Prairie City Council has tasked the Committee with updating the Floodplain Management Plan to be submitted to the Federal Emergency Management Agency by the end of October 2021 to maintain residents’ reductions in flood insurance rates through the Community Rating System program.

Name	Title / City Department	Floodplain Interest Represented
Noreen Housewright	City Stormwater Utility Manager/Floodplain Administrator	Floodplain Management & Preventative Measures
Cami McKillop	City Communications and Marketing	Public Information
Cindy Mendez	City Environmental Services	Natural Resources
Damara Winfrey	City Emergency Management Specialist	Emergency Management
Michael Gerken	Century 21 Real Estate	Real Estate/Public
Tim Bordelon	State Farm Insurance Agent	Insurance/Public
Ramona Bledsoe	President/SCPOA	Public
Katherine Hawkins	Half Associates, Inc.	Public/Consultant

STEP 2. INVOLVE THE PUBLIC

The Committee met on June 8, 2021, July 22, 2021, and August 26, 2021. At the June 8, 2021 meeting, City staff provided Committee members an overview of the goals and objectives of the Floodplain Management Plan and explained how the Plan will address flood projects in the current Hazard Mitigation Action Plan (HMAP). Requirements of the 10-step planning process for developing a Floodplain Management Plan, a timeline for completing the Plan, and strategies to meet the goals of the Plan were discussed. The Committee was tasked with reviewing the flood section of the 2017 HMAP and Repetitive Loss Report summary.

On June 12, 2021, the City of Grand Prairie hosted the annual Crawfish Boil at the Grand Prairie Farmers Market. During the event, the Committee operated a flood information kiosk whose main tasks involved distributing flood-related risk information, gathering local input on potential flooding types and issues, and requesting public commentary of the existing Floodplain Management Plan. The following is a summary of the results based on 54 responses to the Flooding Questionnaire:

- The public has identified Urban Flooding (26 out of 54 responses) as the most significant source of flooding in the City of Grand Prairie with Flash Flooding (23 out of 54 responses) at a close second. Riverine Flooding was selected only 4 times.
- 29 residents believe that their home is at risk due to flooding
 - Of these residents, 17 have selected Urban Flooding as the primary source. Flash, Dam, and Riverine Flooding have 9, 2, and 1 vote respectively.
- Most residents prefer Infrastructure Improvements to alleviate flooding concerns. Other programs that residents have named include continuation of the City of Grand Prairie's Outdoor Warning Sirens, Buyout program for repeatedly flooded structures, and addition of storm sewer inlets to capture ponded flow.

As residents are primarily concerned with Urban Flooding sources, the Committee has plans to continually monitor, assess, and incorporate reported flooding areas for future Capital Improvement Projects (CIP).

A revised copy of the draft Floodplain Management Plan was made available on the City website for public input. Social media promotions through Facebook, Twitter, Instagram, advertisements in the local newsletters, and links on the City of Grand Prairie's Latest News page were utilized to collect public input on the draft Floodplain Management Plan.

STEP 3. COORDINATE AND INCORPORATE OTHER PLANS

At the July 22, 2021 meeting, City staff provided information regarding existing flood control and drainage projects included in the City's Hazard Mitigation Action Plan, flood-prone areas in the City, and areas reported as having slow drainage. Review of the Hazard Mitigation Plan also included community needs, historical flooding and flood studies, assessment of protecting natural floodplain areas, and technical data. Based on these findings, the Committee recommended the flood or drainage projects addressed in the Hazard Mitigation Action Plan to be included in this Plan. The Committee will continue to discuss and prioritize drainage and flood control projects and consider possible structural, maintenance, outreach, and regulatory projects as solutions to improve flooding.

On August 6, the Committee reached out to NCTCOG for comments on the draft Floodplain Management Plan (FMP). Comments were received from Edith Marvin of NCTCOG on August 24, 2021 and incorporated into the 2021-2026 FMP. The Committee will continue to coordinate with NCTCOG for future FMP updates.

At the August 26, 2021 meeting, the Committee finalized the draft 2021-2026 FMP document to be submitted to City Council for formal adoption. All FMP updates were reviewed along with the 2021-2026 PPI and CP appendices.

The City of Grand Prairie is also a participant in the Federal Emergency Management Agency's (FEMA) Cooperating Technical Partners (CTP) Program which fosters communication between state and local entities, develops high-quality flood-hazard identification data, and empowers communities by providing hazard-based data which reduces risk in the community's decision-making process.

Completed projects and existing studies listed under Step 7a of the required 10-step planning process were reviewed by the Committee to ensure that the recent needs, goals, and plans for the community are incorporated into this FMP.

STEP 4. ASSESS THE HAZARD

According to the City of Grand Prairie's 2018 Comprehensive Plan, construction of single family and multifamily housing comprise Grand Prairie's largest use of developed land. A large portion of City land is still undeveloped or is active agriculture; consequently, mitigating hazard risk in conjunction with future development is a priority for City officials.

The City of Grand Prairie's Hazard Mitigation Planning Team (HMPT) identified 11 natural hazards that pose a direct, measurable threat to the City of Grand Prairie's planning area, including flood hazard. In evaluating vulnerability of the population in the City of Grand Prairie to flood risk, the HMPT determined that the entire population of the City is vulnerable and at risk from flooding. People living in and around identified floodplain areas are more vulnerable to a flooding event than those who live/work outside of floodplain areas. However, the areas outside the floodplain can still be impacted by flooding depending on the severity of the flooding event. The 2017 Hazard Mitigation Action Plan is in the process of being updated by the City of Grand Prairie Emergency Management Staff.

Grand Prairie has a long history of flooding along Johnson Creek. In the 1980s, a major U.S. Army Corps of Engineers project was undertaken to straighten the channel, which has reduced the damage from flooding. Most of the flooding incidents in the City have occurred in the northwest quadrant of the City between The Trinity River and Johnson Creek. Several flooding events have also occurred along Cottonwood Creek near the Dallas County line. Incidents have also occurred along the south fork of Cottonwood Creek, north fork of Fish Creek, and Kirby Creek. Flooding is relatively minor throughout the City during typical thunderstorms or rainfall events. However, there are several areas of the City subject to periodic inundation which may adversely affect the public health, safety and general welfare of residents living in these areas, and as a general condition of flooding City-wide.

Roughly 36% of the total City area lies in floodplain areas, more than any other City in the region. Large floodplain areas include Joe Pool Lake, Mountain Creek Lake, and the West Fork Trinity River floodplain.

Table 2 summarizes the City of Grand Prairie's inventory of levees and dams that would result in flooding of developed areas if failure were to occur. Please refer to the attached figure for approximate affected areas.

TABLE 2. CITY OF GRAND PRAIRIE DAM AND LEVEE INVENTORY

Name	Inundati on Depth (ft)	Affected Properties
DAMS		
Joe Pool Lake Dam	6	Commercial properties in western part of City
Mountain Creek Lake Dam	2	Commercial properties in eastern part of City, Mobile homes, Industrial buildings, some residential neighborhoods
Padera Lake Dam	20	Residential properties downstream of Lake
LEVEES		
Dorchester	3	Nottingham Neighborhood, Dwight D. Eisenhower Elementary School
Landfill	2	Grand Prairie City Landfill
GPMURD	1	Lonestar Park, Grand Prairie Cricket Stadium, Texas Trust Credit Theater of Grand Prairie

There are three dams that impact the City of Grand Prairie: Joe Pool Lake Dam, Mountain Creek Lake Dam and Padera Lake Dam. All are classified as high hazard dams by the National Inventory of Dams simply based on the height of the dam and the potential damage should the dam be compromised.

Joe Pool Lake Dam and Mountain Creek Lake Dam are owned and operated by the U.S. Army Corps of Engineers (USACE) and Exelon, respectively. In the unlikely event of dam failure, each of these dams would have a significant impact on the City. A breach at the Joe Poole Lake could result in 6 feet of water flowing into local businesses in the western portion of the City of Grand Prairie. Mountain Creek Lake Dam presents the largest hazard; a breach at Mountain Creek Dam could result in approximately 700 acres covered in 2 feet of water. Padera Lake Dam is a Natural Resource Conservation Service (NRCS) structure located in the City of Midlothian that could have an impact on the southern area of the City. A breach at Padera Lake Dam could result in 20 feet of water to flow across US Highway 287. There are a dozen homes downstream of Padera Lake Dam and waters from Padera Lake would flow into Joe Pool Lake. The dam is rather small, and it is estimated that the inundation area would be less than 2 miles south of the dam’s location.

The three levees in the City of Grand Prairie include: Dorchester Levee, Landfill Levee and GPMURD Levee. The Dorchester Levee is owned and operated by the City of Grand Prairie. Dorchester Levee protects the Nottingham neighborhood, including 400-500 homes and Dwight D. Eisenhower Elementary School. The Landfill Levee is owned and operated by the City of Grand Prairie. The Landfill Levee protects the City’s landfill near I-30 and MacArthur Blvd. The GPMURD Levee is a privately owned and operated levee. The GPMURD Levee protects Lonestar Park, Grand Prairie Cricket Stadium, and Texas Trust Credit Theater of Grand Prairie.

There are also numerous low-lying flood-prone areas, drainage issues, and other flood concerns that were addressed by the Floodplain Management Committee. Some of these problematic areas were addressed and included in the current Hazard Mitigation Action Plan.

The Floodplain Questionnaire has identified several flooding concerns outside the limits of the FEMA mapped floodplains. Interstate Highway 20, Carrier Parkway north of Marshall Drive, Marshall Drive and Balla Way, Pioneer Parkway, Center Street at Grand Prairie Road, Hideaway Drive at Silver Sage Lane, the Trailerdel Mobile Home Park, and the Mira Lagos neighborhood were named as areas of concern for City of Grand Prairie residents. The Floodplain Management Committee plans to monitor these areas during heavy storm events for current and future flooding concerns.

The hazard for flooding in the City of Grand Prairie remains generally low, due in large part to previous mitigation measures. Areas of known concern including but not limited to erosion along Kirby Creek as well as areas identified from the public input questionnaire will continue to be monitored for future drainage projects. Table 3 provides a summary of significant flood events as recorded by the City of Grand Prairie.

TABLE 3. SIGNIFICANT FLOOD EVENTS IN GRAND PRAIRIE, TX

EVENT	LOCATION	DATE	DEATH	INJURIES	PROPERTY DAMAGE	DESCRIPTION
1	Grand Prairie	12/21/1991	0	0	\$50,000	Flooding caused road damage on Beltline Rd @ Trinity River bridge. Flooding of roads and park land were citywide
2	Grand Prairie	5/5/1995	0	0	\$227,878	4.9 inches of rain fell in 1 hour; the storm intensity is slightly greater than that of the 100-year storm. Dalworth Creek flooded five homes
3	Grand Prairie	10/21/96 & 10/27/96	0	0	\$4,000	Flash flooding events in the overnight hours cause widespread road closers and flood damage to homes
4	Grand Prairie	5/17/1999	0	1	\$10,000	Around 4pm intense rains fell causing flooding and 1 injury
5	Grand Prairie	2/01-3/25/01	0	0	\$226,716	Flash floods during these 2 months closed road and flooded 10 homes during these events
6	Grand Prairie	3/13/2007	0	0	\$240,100	Flash flooding city and county wide that caused major roads like Carrier Pkwy, Great Southwest, and Beltline to be inundated with water. Many homes and business flooded
7	Grand Prairie	9/8/-9/9/2010	0	0	unknown	9+ inches of rain in 10 hours due to Tropical Storm Hermine. Many of the roads from the middle of city to the northern border were under water for 3-5 days.
8	Grand Prairie	05/17-05-29/2015	0	0	\$198,200	Record rainfall event. Water reported waist high. Residents were encouraged to evacuate; several high-water rescues were conducted to bring residents to safety.
9	Grand Prairie	09/22-23/2018	0	0	\$468,512	9+ inches of rain in less than 24hrs Causing damage to high flow by-pass at Johnson Creek

Note: Data Source www.gptx.org

Floodplains

The FEMA Flood Insurance Rate Maps (FIRMs) are maintained by the City’s Stormwater Department, and can be found at the following link on the City’s Website:

<https://www.gptx.org/city-government/city-departments/planning-development/floodplain/flood-insurance-rate-maps>

STEP 5. ASSESS THE PROBLEM

A number of factors can contribute to flooding, including wind, severe thunderstorms, and large rainfall events. There are approximately 497 structures located in the floodplains within the City of Grand Prairie. Some structures may be subject to repeat flooding but may not be recorded.

Using repetitive flood insurance claims, and FEMA’s Repetitive Flood Loss Report, the City has identified seven repetitive loss properties located in the city limits with a cumulative value of \$522,102 paid for past claims since May of 1979. One of the repetitive loss properties is located within the 1% annual chance (100-year) floodplain, five are located within the 0.2% annual chance (500-year) floodplain limits, and the last property is located outside the mapped limits of riverine flooding. Four of the repetitive loss properties have been adequately protected with mitigation measures and AW-501 forms will be submitted to remove them from FEMA’s Repetitive Loss List. One of the properties will potentially be bought out by the City and demolished. The last two properties are planned to be protected from future flooding with a proposed ditch or storm sewer improvement projects. In previous years, there were additional repetitive loss properties listed, but City officials have worked with homeowners and businesses over the years to mitigate these structures from flood risk through acquisition, elevation, or through other mitigation measures, thus removing them from FEMA’s Repetitive Flood Loss list.

When Grand Prairie applied for initial membership in the Community Rating System (CRS) program, there were approximately 350 homes and businesses located within the FEMA designated 1% annual chance (100-year) flood risk area that had experienced some degree of flooding. There were also approximately 300 homes and businesses outside the designated floodplain areas that flooded due to urban flooding. There are currently 497 structures located in the 100-year floodplain. The structure occupancy class according to City landuse is shown in Table 4 below. The majority of structures within the floodplain are Commercial properties which represent 40% of the total structures, followed by Multi-family and Single-Family properties which each represent approximately 20% of the total structures.

TABLE 4. FLOODPLAIN STRUCTURES BY OCCUPANCY TYPE

Occupancy Type	Number of Structures
Commercial	200
Institutional	9
Industrial	45
Mobile home	115
Multi-family	29
Single family	99

Since 1999, the City has spent in excess of \$10 million to construct new drainage facilities to relieve flooding. Several of these projects addressed flooding in areas that previously included repetitive flood loss

properties.

Major projects that have significantly reduced flooding in Grand Prairie include:

1. The Johnson Creek USACE 205 project, the Dorchester Levee project, and the Dry Branch USACE 205 project removed over 150 homes from the 50-year floodplain and 140 homes from the 1% annual chance floodplain.
2. Dorchester Levee Project removed 12 Repetitive Loss residences from FEMA’s Repetitive Loss Report.
3. Nottingham Drainage Improvements Project removed the last 6 repetitive loss homes from the 1% annual chance floodplain adjacent to Johnson Creek. All of the homes in the Nottingham area adjacent to Johnson Creek have been officially removed from the 1% annual chance floodplain (and the FEMA Repetitive Loss Report upon approval).
4. The Dry Branch Channel Improvement Project removed one Repetitive Loss property from the 1% annual chance floodplain.
5. The City purchased one Repetitive Loss structure in the vicinity of Carrier Parkway.
6. Completion of the Dalworth Creek Channel Improvement Project removed 18 additional homes from the 1% annual chance floodplain.
7. The Airport Detention Pond reduced the peak discharges for Kirby Creek resulting in removal of 20 structures from the 1% annual chance floodplain.
8. The Cottonwood Creek City-Wide Drainage Master Plan and Fish Creek City-Wide Drainage Master Plans were completed in early 2019. They went through FEMA’s Letter of Map Revision (LOMR) process. The letter regarding the LOMRs were issued on October 11, 2019

Miscellaneous Drainage Projects – Includes construction of smaller projects to provide relief from localized flooding:

- City-Wide Drainage Master Plan Studies
- Dickey Road – roadway and storm drain improvements
- Oakdale-culvert improvements
- 3rd and Alice Street – storm drain improvements
- Skyline and 3rd Street – storm drain improvements
- Pioneer and Great Southwest Parkway at Cottonwood Creek
- Cedar Creek and Prairie Creek miscellaneous erosion
- Ed Smith Court storm drain outfall improvements
- Outfall rehabilitation along Waterford Drive
- Main Street- Jefferson Street box culverts
- Skyline at Henry Branch
- Marshall and Robinson at Cottonwood Creek
- East Main Street at Railroad Bridge
- Phillips Storm Drain
- Capetown-Denmark to Sweden
- Great Southwest Parkway at Prairie Creek
- Miscellaneous public erosion repair
- Miscellaneous outfall rehabilitation
- Miscellaneous drainage projects
- Annual study for outfall rehabs
- Bar Ditch Assessment Study
- Miscellaneous engineering projects
- Culvert at Martin Barnes Road at Garden Branch
- Skyline at Henry Branch

- Pond maintenance
- Miscellaneous outfall rehabilitation
- Annual study for outfall rehabs
- Miscellaneous engineering projects

Other Projects:

- Street drainage crews perform routine checks on all bridges, culverts, and other drainage structures throughout the City, especially following a storm event.
- Street drainage crews completed several small drainage projects that relieved localized flooding within the storm drain system.
- Pond maintenance
- Ongoing culvert maintenance at major thoroughfares ensures culverts are functional.
- Ten years ago, the City initiated a Vegetation Management program to reduce dense growth of woody vegetation in some streams. This program, along with selective tree clearing, has re-established the flood carrying capacity of most of the streams in Grand Prairie while retaining the vegetation necessary for erosion protection.

Future Drainage Projects – As part of the Fiscal Years 2021-2026 CIP, the City has approved the following projects:

- Tarrant Road at Arbor Creek
- Generator for Dorchester Levee
- Dechman Street from Westchester to Bardin
- Stormwater Modeling Annual Update
- Briarhill Erosion Permanent Solution
- Mike Lewis Erosion
- Wailingford PID Retaining Wall
- Shady Grove from Beltline to East of Roy Orr
- SW 3rd from Dickey to Phillips widening and drainage improvements
- Great Southwest Parkway (Ave. K to Fountain Parkway)
- Great Southwest Parkway (Ave H to J)
- Oakdale (Roy Orr to 161)
- Great Southwest Parkway (I-20 to Lakeridge)
- Ave J from SH 360 past Johnson Creek
- Great Southwest Parkway (Ave J to Ave K) (inc. Bridges)
- Drainage Buyouts for two structures due to erosion from creek
- Master Plan Study Updates
- Bar Dich Improvements
- Misc. Erosion Projects
- Storm Drain Outfall Repairs
- Concrete channel assessment
- Concrete Channel repairs
- Dry Creek Channel Improvements
- Annual Study for Outfall Rehabs.
- Storm drain improvements to 1500 Block of Oak Street
- Potential Storm Drain Improvements for areas of concern identified in public questionnaire

Warnings and Evacuations

The City of Grand Prairie is vulnerable to a number of natural hazards such as tornados and flooding.

Consequently, monitoring weather for flash floods, violent storms and tornadoes is extremely important. Planning for evacuation of residents is both a necessity and major concern for community officials. The ability to safely evacuate residents during a disaster depends on strong disaster preparedness planning and requires the cooperation of all affected citizens. Evacuation may require the establishment of emergency shelters during disasters for evacuees. Significant coordination among City departments during disasters is critical in order to maintain essential City services.

The City of Grand Prairie has 22 real-time rain and stream gauges throughout the City and one set of automated gates. This is a major step towards implementing the City's Flood Warning System. The Emergency Management Department's website provides information on the City's warning siren system and instructions on responding to the alerts. The Outdoor Warning Sirens may be activated for any kind of emergency – not just severe weather. The Outdoor Warning Sirens consists of 29 outdoor warning sirens (26 dedicated to storms, 2 dedicated to flood, and one dedicated to flood and storms) that are activated for one or more of the following conditions:

- A tornado warning issued by the National Weather Service in the City of Grand Prairie
- Tornado, funnel cloud or rotation reported by a reliable source
- Destructive winds in excess of 70 mph
- Reports of hail larger than 1.75 to 2 inches
- Chemical spill
- State or national emergency
- Other emergencies as appropriate

The City of Grand Prairie installed five Flood Warning Sirens in the City. The Flood warning system will be activated if flood conditions are inevitable. The warning system will consist of a tone followed by a verbal message informing Grand Prairie residents that the flood water is rising and to prepare to either evacuate (four sirens) or shelter in place (one siren). The 'go live' date is September 2021. Outreach postcards were sent to all residents within each the siren's parameter informing residents what to do if the siren goes off.

Information about the City's warning system is located at www.gptx.org/disasters and published annually in the City's 'Pipeline' newsletter. As part of the City's emergency preparedness efforts, the website provides resources on how to prepare for a wide range of emergencies and disasters along with information on preparing and planning for a full range of natural and man-caused hazards.

Alert GP Mass Notification System

Alert GP capability allows the City to send important messages within minutes via phone, text, email and social media for quick and reliable notifications and community outreach. The system is used for emergencies. The Office of Emergency Management has the ability to deliver recipient-specific information to a single address, street, or entire neighborhood. The system includes automatic weather warning functions for tornado, severe thunderstorm, and flood watches and warnings

RACES

Founded in 1952, the Radio Amateur Civil Emergency Service (RACES) is a public service provided by a reserve (volunteer) communications group within government agencies in times of extraordinary need. During periods of RACES activation, certified unpaid personnel are called upon to perform many tasks for the government agencies they serve. Although the exact nature of each activation will be different, the common thread is communication. RACES supports the City of Grand Prairie by providing federal, state, and local agencies with supplemental emergency communication, services, and equipment during a disaster, and providing SKYWARN ground truth reports to the National Weather Service during severe weather, supporting public service events, and any event at the request of the City.

Weather Websites and Apps.

Residents can view current weather conditions and forecasts for Grand Prairie via miscellaneous websites and weather apps. Additional Weather/Emergency Links:

- The Weather Channel Map for Grand Prairie, Texas (for public use)
- www.KnoWhat2Do.com (for public use)
- CASA radar (City staff use, password protected)
- Conrail real-time stream gauge, and rain gauge system (for public use)
- NWS Chat (National Weather Service chat room with local meteorologist and emergency managers (City staff use)
- Weather-Ready
- USGS gauges (for public use)
- USACE gauges/dam operations (for public use)

StormReady

The City of Grand Prairie is a 'Weather-Ready Nation' focused on building community resilience in the face of increasing vulnerability to extreme weather and water events. Americans live in the most severe weather-prone country on Earth. Some 98% of all Presidentially Declared Disasters are weather related, leading to around 500 deaths per year and nearly \$15 billion in damage.

StormReady is part of the National Weather Service's 'Weather-Ready Nation' program, which helps arm America's communities with the communication and safety skills needed to save lives and property- before, during and after the event. StormReady helps community leaders and emergency managers strengthen local safety programs. StormReady communities, counties, universities, military bases, Indian nations, commercial enterprises and other groups are better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness.

Identification of Critical Facilities

Critical facilities within the City of Grand Prairie include those that are essential to a community, especially during and after a disaster. The City of Grand Prairie considers a critical facility to be a structure that has the potential to cause serious bodily harm, extensive property damage, or disruption of vital socioeconomic activities if it is destroyed or damaged or if its functionality is impaired. The City maintains contact information for all critical facilities in the community. There are no critical facilities located within FEMA's Special Flood Hazard Area (SFHA) in the City. A list of critical facility types and counts of each type within the City limits are shown below in Table 5.

TABLE 5. CRITICAL FACILITY INVENTORY

Type	Count
CITY	14
ENTERTAINMENT	2
FIRE STATION	10
HOSPITAL	2
LIBRARY	2
LIBRARY/EMERGENCY SHELTER	1
OTHER	17
POLICE	2
RECREATION CENTER	8
RECREATION CENTER/EMERGENCY SHELTER	2
SCHOOL	55
TOTAL	115

Areas of Natural and Beneficial Functions

Wetlands

Wetlands are the transitional zones between uplands and deep water -- they are areas that are dependent on the presence of water periodically, or all of the time. Because of this, wetlands, and other flood control structures such as detention and retention ponds that do not have water in them year-round can sometimes be difficult to recognize. However, their presence in the landscape is still significant, as they will fill with water during a flood or storm event and perform important wetland functions, such as sediment stabilization, flood attenuation, and nutrient cycling, along with many others. Unlike some other areas of the State, the City of Grand Prairie is essentially urbanized and developed. Therefore, wetlands are not as abundant in the City. However, as wetlands have come to be understood and appreciated for their role in flood control, water quality, and wildlife habitat, many state and federal incentives have been created to help conserve, restore, and create wetlands. The City of Grand Prairie has 14 areas with the wetlands classification which comprises approximately 1% of the total City area as shown in Table 6. City staff has identified the presence of pristine wetland obligates on both sides of the Landfill, Wetlands Mitigation area, but no flora or fauna is endangered. Examples of obligate wetland flora include duckweed, water lily, pickerel weed, cattails, wooly sedge, soft-stem bulrush, royal fern, and water horsetail.

TABLE 6. CITY OF GRAND PRAIRIE WETLANDS INVENTORY

Wetland Zone	Area (Ac)
Fish Creek Forest Preserve	40.7
Trammel Crow, Pioneer and SH161, Mitigation Area	4.2
Service Center, Site A-1, A-2, B and C	6.6
Paragon Outlets Conservation Easement	7.7
Carrier Parkway Plaza, Wetlands Mitigation	3.1
Johnson Creek Channel Project, Wetland Mitigation	14.3
Grand Lakes Basin. Pk, Green Belt Esmt and Wetland	42.2
Westfork Wetlands Mitigation Deed Restriction	5.1
Beltline West Reclamation Mitigation Area	108.1
GPMURD Restricted Area	184.1
MacArthur Blvd Wetland Determination	1
SAIA Motor Freight Branch Expansion, Lot 1R	6.8
Central Park, Floodplain Management Area	6.1
Landfill, Wetlands Mitigation	86.6
TOTAL	516.6

Development Requirements in the Floodplain

The City of Grand Prairie participates in the National Flood Insurance Program (NFIP). As a participating community, the City has adopted Floodplain Management practices through several ordinances that severely limited development allowed in 1% annual chance floodplains (the area inundated by a storm that has a 1% chance of occurring in any year). The City of Grand Prairie standards require all new structures be constructed 2.0 feet above the existing water surface elevation of the 1% annual chance floodplain, or 1.0 foot above the "ultimate" water surface elevation, whichever is higher. Mobile homes must be elevated 3.0' above the 1% annual chance floodplain elevation. When developing along a major creek within the City of Grand Prairie, the developer must submit a Flood Study to the City showing the 1% annual chance floodplain and water surface elevation based on both current land-use and future land-use assumptions. For property with any portion located within the 1% annual chance floodplain, regardless of structure location, a flood insurance policy may be required by the mortgage lender.

The North Central Texas Council of Governments (NCTCOG) established additional development requirements through a cooperative management program comprised of participating agencies and communities. This program establishes additional permit criteria for the Trinity River Corridor, or *Corridor*. This area is defined by the bed and banks of the Trinity River and the adjacent river floodplain within the City of Grand Prairie. A Corridor Development Certificate (CDC) is a permit issued by the City prior to development within the Regulatory Zone of the Corridor, which is similar to the 1% annual chance floodplain. The CDC process does not prohibit floodplain development but ensures that any development that does occur in the floodplain will not raise flood water levels or reduce flood storage capacity. Additionally, 'valley storage,' defined as the temporary storage of floodwater provided by the channel and overbank areas of the floodplain, must be maintained. The CDC permitting process allows participating communities upstream and downstream of the project to be informed of a proposed development in the Corridor and to voice any concerns about the project prior to development.

The City of Grand Prairie is also a Certified Silver Integrated Stormwater Management (iSWM) community and is recognized as one of fourteen founding communities. This award is granted to

communities demonstrating higher standards for developments affecting floodplains.

Economic Impact

Several of Grand Prairie’s largest private employers are involved in aviation, aerospace and defense-related industries, and some of these enterprises are located at an appropriate distance from any floodplain properties—with the exception of largest private employer Lockheed Martin Missiles & Fire Control headquarters, the North American Headquarters of Airbus Helicopters and one installation of Safran. LMMFC, the General Motors Logistics Operations Center (LOC) and Gruma Mission Foods all border the Cottonwood Basin, and Airbus Helicopters and the Grand Prairie Municipal Airport location of Safran are located just south of the Cottonwood Basin. Likewise, larger employer PolyAmerica is immediately adjacent to Johnson Creek—and PolyAmerica is the only buffer between Johnson Creek and all the employers listed previously.

Closer to the Center of Grand Prairie, the U.S. Department of Justice Bureau of Prisons is almost immediately adjacent to (just north of) Mountain Creek Lake—and both Lone Star Park and Forterra Pipe & Products, Inc. aren’t far from the West Fork of the Trinity River. (In the case of Lone Star Park, it is separated from the West Fork by a large levee operated by the Grand Prairie Municipal Unity District.)

To the far north, close to the City’s limits with neighbor Fort Worth, large General Motors Tier 1 vendor Lear Corporation is located just south of the Trinity River West Fork; near IH-20, GM Tier 1 vendor Flex-N-Gate is located just north of Fish Creek. The amount of economic impact by flooding and its duration depends on the severity of the storm event. A storm event with heavy rain and little wind may only result in flooding in a limited area of the City and would have relatively little long-term economic impact. Conversely, torrential rains over an extended period of time could result in citywide damage and long-term financial impacts. Property tax revenue could decline significantly in the year following such a storm. The return of property tax revenues to pre-storm levels would depend on how quickly structures are repaired or rebuilt. Other citywide damages could impact public buildings and parks. Temporary loss of City franchise fees resulting from shutdown of utility services could have a financial impact until damaged areas are rebuilt, and utility services are restored. On the other hand, building permit revenues would increase in the months following such a storm, as insurance claims are settled, and property owners begin the process of rebuilding. The sales revenue generated from purchases of supplies and replacement goods (e.g., lumber, plumbing fixtures, furniture, appliances, and electronics) may offset, at least in part, the loss of property tax revenue.

STEP 6. SET FLOODPLAIN MANAGEMENT GOALS

- Maximize use of all resources by promoting interagency and interdepartmental coordination and partnerships in the public and private sectors.
- Strengthen the City against the effects of disasters through the development of mitigation strategies and strict enforcement of current regulations that have proven effective.
- Reduce and, where possible, eliminate repetitive damage, loss of life, and loss of property caused by disasters.
- Raise community awareness about potential hazards and the need for community preparedness.

STEP 7a. REVIEW CURRENT ACTIVITIES

Activities initiated by the City of Grand Prairie in Step 7 include current or ongoing measures to address flood-related hazards facing the community based on the following 6 categories: Preventative, Property Protection/Flood Hazard Mitigation, Natural Resource Protection, Emergency Services, Structural Projects, and Public Information/Flood Information Assistance.

1. Preventative

Drainage Design Manual 2017 Update

There are over 19,000 acres of floodplain in the City of Grand Prairie. This accounts for 36.7% of the total City area, more than any other City in the region. Large floodplain areas include Joe Pool Lake, Mountain Creek, and the West Fork Trinity River floodplain. City flooding and drainage problems are key issues when planning for the safety, health, and quality of life for Grand Prairie citizens. As of 2021, over 2,866 drainage complaints had been submitted to City staff. Also, land development in Grand Prairie continues to increase over time, thus increasing the potential for faster and greater flooding chances at many locations across the City. Many successful projects have been built in the City to provide flood control, including channels, culverts, bridges, levees, detention facilities, and ponds. Earthen channels are encouraged throughout the City, particularly for channels draining areas of more than 4,000 acres. However, many areas are still in need of additional flood control measures or repairs and improvements to existing flood control structures.

Stormwater

Stormwater quality management programs are a response to regulations from the Environmental Protection Agency (EPA) connected to the federal Clean Water Act. In Texas, these regulations require cities to obtain a permit under the Texas Pollutant Discharge Elimination System (TPDES) and to create a comprehensive program to seek out and eliminate pollutants carried by storm water. The City of Grand Prairie, in conjunction with the Dallas County Flood Control District #1 (DCFCD) developed the Stormwater Management Program (SWMP) in accordance with the TPDES requirements. The SWMP will facilitate the City's and DCFCD's efforts in reducing stormwater pollutants, thereby protecting the City's stormwater quality to the maximum extent practicable. The SWMP includes specific Best Management Practices (BMP) that will be implemented to reduce pollutants, measurable goals for each BMP, and an implementation schedule developed for the five-year permit term, effective 2013-2018.

In October 1993, the City established a Stormwater Utility District. Fees were established to assist in resolving stormwater related problems, construct drainage systems, increase stream monitoring, permitting, and pollution control. These fees generate funds that are used to eliminate residential flooding, eliminate or reduce non-residential flooding, reduce street flooding, and maintain existing drainage structures in the City.

The City maintains a StormCAD model representing storm drainage facilities throughout the city. The model

was last updated in 2019 and is currently being updated this year (2021). The model is updated every 2 or 3 years, in general. The model assists city staff and consultants to identify future capital improvement projects to help minimize urban flooding. Along with storm drain modeling, the City also maintains hydrologic and hydraulic modeling for major creeks. These models assist city staff by providing a standard against which proposed developments can be measured and provide valuable information for developers and their consultants as they design their project to meet city, state, and other requirements.

Land Development Regulations

The City of Grand Prairie adopted the Unified Development Code on November 20, 1990 by Ordinance No. 4779. The Unified Development Code (UDC) is a single comprehensive document that is used as the primary guide for development within the City. The Unified Development Code incorporates procedures, standards, and regulations for zoning and land use applications.

The Unified Development Code is adopted for the following purposes:

- To protect, promote, improve and provide for the public health, safety, and general welfare of the citizens of the City of Grand Prairie.
- To ensure the safe, orderly and efficient development and expansion of the City of Grand Prairie, in accordance with and pursuant to its Comprehensive Plan.
- To conserve, develop, protect and utilize natural resources, in keeping with the public interest.
- To prevent the overcrowding of land and avoid undue concentration or diffusion of population or land uses.
- To protect and preserve places and areas of historical, cultural or architectural importance and significance to the community.
- To protect and conserve the value of land throughout the City and the value of buildings and improvements upon the land, and to minimize the conflicts among the uses of land and buildings.
- To provide for open spaces through the most efficient design and layout of the land.
- To prevent the pollution of air and water, to assure the adequacy of drainage facilities, to safeguard water resources and to preserve the integrity and aesthetic quality of the community.
- To lessen congestion in the streets and provide convenient, safe and efficient circulation for vehicular and pedestrian traffic.
- To facilitate the adequate and efficient provision of transportation, water, wastewater, schools, parks, public safety and recreational facilities, and other public facilities and services; and
- To treat in one unified text those areas of regulation more typically dealt with in separate ordinances such as, but not exclusively, the zoning ordinance, the subdivision rules and regulations, the fence ordinance, the mobile home ordinance, etc.

2. Property Protection

The City of Grand Prairie has initiated numerous property protection measures to reduce flood risk in the community. The City has adopted more stringent building requirements in flood hazard areas within the City, and along the Trinity River Corridor. The Stormwater Department reviews all building permits that are within 200 feet of the floodplain to check that structures are built to an elevation above the 1% annual chance floodplain and address localized flooding in proximity to the floodplain area.

The City requires a Floodplain Development permit for proposed development or improvements within 200 feet of the floodplain. Grand Prairie's Unified Development Code Article 15 requires the lowest floor be set at least 2.0 feet above the existing FEMA 1% annual chance flood elevation or 1.0 foot above the ultimate developed conditions, whichever is higher. When developing along a major creek within the City of Grand Prairie, the developer must submit a Flood Study to the City showing the 1% annual chance floodplain and water surface elevation based on both current land-use and future

land-use assumptions.

Developments adjacent to natural creeks are required to delineate what the City terms the erosion hazard setback. Proposed structures must be located outside of this setback. Alternatively, the development may choose to strengthen the creek bank, for example with gabions or other structural improvements, to reduce the setback.

In addition to these efforts to protect life and property from the flood hazard, the City participates in the Community Rating System (CRS). The CRS is a subset of the National Flood Insurance Program (NFIP). It is a voluntary incentive program, which recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, properties are further protected from flood risk, and flood insurance premium rates are discounted to reflect community actions meeting the three goals of the CRS program: 1) Reduce flood losses, 2) Facilitate accurate insurance rating, and 3) Promote the awareness of flood insurance. In September 2012, the City of Grand Prairie obtained a CRS ranking of 5, which qualifies its residents and businesses for a 25% discount on flood insurance premiums for properties in the Special Flood Hazard Area (SFHA). The SFHA is the 1% annual chance floodplain.

Completed Flood Mitigation Activities:

Levee Recertification

The City has constructed two levees to protect life and property from flooding: Dorchester Levee and Grand Prairie Landfill Levee. Grand Prairie Municipal Utility and Reclamation District (GPMUR) owns and operates a private levee system on the Northeast side of the City. The City has completed the certification of all levees within the City limits. Consultants were hired by each responsible entity to perform engineering analysis on each levee and certify its level of protection and susceptibility to overtopping. This process allows areas behind the levees to keep their flood protection status from the 1% annual chance storm.

City-Wide Drainage Master Plan Road Map

The City-Wide Drainage Master Plan Road Map establishes the processes for future flood control planning for the City of Grand Prairie. The City's primary goal and objective of the Drainage Master Plan is to cost-effectively manage flood or storm waters within budgeting constraints so that conditions don't get worse as new and infill areas are developed – while evaluating and making conditions better in the areas of the City that are already developed. The Plan was finalized and accepted by City Council in August 2010.

The Joe Pool Lake Watershed Report

The report was also completed and accepted by City Council in February 2011. Contracts for Fish Creek Watershed, Cottonwood Creek Watershed, Cedar Creek Watershed, and Arbor Creek Watersheds are currently being studied as part of FEMA's Cooperating Technical Partner (CTP) grant program. A portion of the Trinity River is also being analyzed as part of FEMA's Risk Assessment, Mapping, and Planning Partners (RAMPP) project, a joint venture of Dewberry and AECOM Corporations, and ESP Associates, three Production and Technical Services (PTS) contractors under FEMA's Risk Map phase of the National Flood Insurance Program. RAMPP will provide comprehensive floodplain mapping, GIS, and hazard mitigation services for FEMA.

City-Wide Drainage Master Plan for Joe Pool Lake

This project includes an update to the hydrology and hydraulics for all of the mapped streams within the Joe Pool Basin of the city limits and Extraterritorial Jurisdiction (ETJ). The study was performed in accordance with the City-Wide Drainage Master Plan Road Map. The final report was delivered and accepted by City Council in February 2011. The mapping updates have been submitted to FEMA for inclusion into the Map

Modernization program; however, FEMA only updates DFIRM panels as funding is available. All mapped streams for the Joe Pool Basin are still pending FEMA review, with the exception of Soap Creek. The Soap Creek 'Letter of Map Revision' (LOMR) was approved by FEMA in April 2015.

Cottonwood and Fish Creek Flood Protection Project (Texas Water Development Board (TWDB) grant)

The Cottonwood and Fish Creeks Flood Protection Project is an engineering analysis of the flooding risks in the Cottonwood and Fish Creek Basins, as well as a planning analysis of mitigation of these flooding risks. The report was completed in March 2011. The City of Grand Prairie has contracted with a consulting firm to build on this study to develop Master Drainage Plans for Cottonwood and Fish Creek Basins, as per the City-Wide Drainage Master Plan Road Map. This work is being done in conjunction with the FEMA CTP Mapping grant and it was completed 2016.

Kirby Creek Letter of Map Revision (LOMR)

FEMA approved the Kirby Creek Letter of Map Revision (LOMR) in May 2011, which updates the hydrology, hydraulics, and floodplain for the Kirby Creek Basin. The Airport Drainage Detention Pond improvements, SH 161 Frontage roads, fill projects along SH 161, updated City 1.0-foot topography, and multiple survey sources throughout the Kirby Creek Basin were included in the LOMR.

West Fork 1D/2D Hydraulic Analysis

The West Fork Trinity River 1-Dimensional and 2-Dimensional Analysis focused on the downstream end of the West Fork Trinity River Basin. The study area is bounded on the upstream end by SH 161 and on the downstream limits by the confluence of Big Bear Creek with West Fork Trinity River, just downstream of MacArthur Blvd. The purpose of this study was to provide a hydrodynamic analysis of the drainage patterns along the West Fork Trinity River and Bear Creek, as well as the floodplain area between the river and creeks. Due to the complex nature of the flow interaction, the system has been modeled using the Innovyz RS/2D software capable of two-dimensional modeling. The report was completed and accepted by City Council in July 2011.

Mapping Activity Statement No. 2 (FEMA CTP Funding)

FEMA has allocated \$300,000 for Grand Prairie to develop updated hydrology, hydraulics, and floodplain mapping utilizing a watershed approach. The scope of work includes Cottonwood, Fish, Cedar, and Arbor Creek Basins. The Cedar Creek Drainage Master Plan was adopted by City Council in October 2011. Arbor Creek Drainage Master Plan was adopted by Council in January 2012. The Cottonwood and Fish Creek Study is was completed in 2016.

Mapping Activity Statement No. 3 (FEMA CTP Funding)

FEMA allocated \$280,500 for Grand Prairie to develop updated hydrology, hydraulics, and floodplain mapping utilizing a watershed approach. The scope of work includes Alspaugh, Bear, Dalworth, Gopher-Turner, and Johnson Basins. Work was completed in 2014 and submitted to the RAMPP team for mapping.

Lynn Creek Parkway LOMR

The City of Grand Prairie obtained a LOMR following the construction of the Lynn Creek Parkway Bridge that crosses Lynn Creek. No new hydrologic analysis was completed. The Base Flood Elevation (BFE) was lowered by 0.3 feet approximately 100 feet upstream of the structure. The floodway was updated with the corrected alignment of the stream. The bridge did not result in any changes to the floodway. FEMA approved the LOMR on April 2, 2015.

3. Natural Resource Protection

The City of Grand Prairie is a ‘Water Wise’ community and has implemented a number of programs and ordinances to encourage residents to conserve water year-round and avoid contaminating the soil and waterways. The City’s Public Works Department works to educate residents regarding ‘Don’t Clog the Drain’. Code Enforcement Officers help monitor activities associated with protecting the City’s floodplains and waterways. The City offers residents a household waste recycling program in an effort to eliminate junk, litter, and debris left in yards which clog storm drains and block natural waterways. Removing these items along with tree trimmings and brush debris aides in preventing overbank flooding that could otherwise occur in low-lying areas and along waterways.

4. Emergency Services

Comprehensive Emergency Management Plan

The City of Grand Prairie has a Basic Emergency Operations Plan along with 22 supporting annexes that are all reviewed annually and revised every 5 years. All annexes are approved by the Texas Department of Emergency Management (TDEM). The City of Grand Prairie has reached and maintained an advanced level of planning along with being National Incident Management System (NIMS) compliant. Grand Prairie also conducts, at minimum, three public safety exercises a year. All exercises are planned for, conducted, and evaluated using the Homeland Security Exercise Evaluation Program (HSEEP) and approved by TDEM.

This plan establishes uniform policy that the City uses to create specific procedures and guidelines during floods and other similar emergencies. In the event county or regional disaster response or emergency efforts are needed, the City of Grand Prairie will jointly participate in coordinating the appropriate response through a Unified Command with neighboring communities or stakeholders.

Flood Warning and Monitoring

The City of Grand Prairie has 23 real-time rain and stream gauges throughout the City. This is a major step towards implementing the City’s Flood Warning System. The data is available on the City’s website for the general public. The first phase of gauge installation was completed in August 2009. Phase II of the gauge installation was completed in January 2011. In 2017 the City upgraded its platform for monitoring its rain and stream gauges and in 2019 the City completed an upgrade to all 23 sites by replacing transmitters with new Alert 2 standards. Future work will include website refinements, software updates, and discharge versus stage rating curve development. The City recently upgraded its platform for monitoring its rain and stream gauges.

The City of Grand Prairie has three flood-warning systems to warn citizens of high water and flooded roadways. At one of the sites located on Carrier Parkway at Cottonwood Creek the Public Work Division has constructed an automated gate system and flashing light which is operated by rising water levels. The system warns citizens of hazardous or flooding conditions by closing this section of roadway when water levels are over the road. There are 3 warning signs going each direction at low water crossings on Carrier Parkway. Messages read, “Flash Flood Zone Next ¼ Mile,” “Watch For Water On Road,” and “Water Over Road When Flashing”. At the other 2 locations the system consists of signs and flashing lights, that warn motorists when the roadway is impassable due to high water.

During periods of heavy rainfall, the City of Grand Prairie’s street drainage crew is on 24-hour call and inspects roadways to monitor flooding. City crews use barricades to close roads that are inundated with water and to discourage traffic from driving through these areas. The City also uses its real-time rain and stream gauge monitoring system to assist in determining road closures. The monitoring system consists of 23 rain and stream gauges located throughout the City. Grand Prairie participates in the CASA radar system, which also helps provide current weather conditions.

5. Structural Projects

Drainage Design Manual

The purpose of drainage policies and standards is to protect the general health, safety, and welfare of the public by reducing flooding potential, controlling excessive runoff, minimizing erosion and siltation problems, and eliminating damage to public facilities resulting from uncontrolled stormwater runoff. Engineering staff reviews drainage plans for building permits, development, and erosion control. The Stormwater and Engineering Department issues Clearing and Grubbing/Earthwork permits. All development within the City of Grand Prairie must comply with the requirements of the City Drainage Design Manual (as currently amended) as well as City erosion control standards. The procedures, policies and standards of the manual govern storm drainage facilities within the City of Grand Prairie and its extraterritorial jurisdiction.

The Stormwater Department responds to local drainage complaints. The complaints are investigated and recorded in a database. Improper lot grading by homebuilders in new subdivisions previously constituted a significant number of the complaints. To reduce this problem, the City implemented a program that requires homebuilders to certify lot grading is consistent with the final approved lot grading and drainage plan for the recorded subdivision. A Precise Grading Certificate must be sealed by a Registered Surveyor before a Certificate of Occupancy is issued.

6. Public Information and Flood Information Assistance

Informational Flyers, Articles, and Internet Site

The City's Stormwater Department, which also manages the CRS program, provides a comprehensive flood information program to the public. Residents may access flood information from the City by visiting the Stormwater Department in person, by phone, or online. The Stormwater Department provides flood information, including flood zone determination for specific addresses, floodplain permits for proposed or existing structures, lowest floor elevations, data on historical flooding in the City, and more. The City's Stormwater Department also assists residents in non-technical review of individual properties when requested. The City also provides guidance on floodproofing, and other mitigation techniques to reduce flooding. Financial options for structural mitigation, such as State and FEMA grant programs are also available to the property owner.

The City's website provides a wealth of information and is easily accessible from a computer or phone. Information regarding various hazard risks, evacuation, shelter locations, and emergency preparedness measures may be accessed online or by calling the City's Emergency Management Department. Currently, the City sends information regarding availability of flood insurance to homeowners, banks, real estate companies, and insurance companies. Citizens are made aware that flood insurance is available for all properties located in the City, including properties located outside the 1% annual chance regulatory floodplain, or high-risk flood zone areas. This information is provided through letters mailed via the U.S. postal service, flyers in the utility bills, digital signs throughout the city, social media and in response to phone calls and inquiries from residents.

Flood Insurance Rate Maps

The City also provides a map information service enabling property owners, residents, developers, and insurance agents to determine the flood zone of a specific property. Paper copies are available for viewing at the City's Public Works Department at City Hall East. Electronic maps may be viewed and printed online for free at the FEMA Flood Map Store. The City's Stormwater Department maintains current Flood Insurance Rate Maps that can be found at the following link on the City's Website:

<https://www.gptx.org/residents/public-safety/floodplain-stormwater>

FEMA Map Modernization

FEMA, with the cooperation of local communities and consulting engineers, converted paper FIRMs into digital format and updating them with the latest data. This process began in the spring of 2004 for area counties of Dallas, Johnson, Ellis and Tarrant. Since that time, the maps for Tarrant County were finalized and became effective in September 2009. The maps for Johnson County were finalized and became effective in December 2012. The maps for Ellis County were finalized and became effective in June 2013. Dallas County maps became effective in 2014. The City of Grand Prairie integrated effective Digital Flood Insurance Rate Map (DFIRM) data into the City's Geographic Information System (GIS). This integration allows property lines and aerial photos to be superimposed over the floodplain delineations for easier floodplain determination. The City is using the effective maps to regulate development based on the best engineering data available.

STEP 7b. REVIEW POSSIBLE ACTIVITIES

A systematic review of possible measures to further prevent or reduce the severity of flood-related hazards described in Step 5 was explored for each of the 6 categories below. The full range of activities was evaluated based on the activity's cost and benefit. Status of the activity, along with a statement as to why the activity is or is not appropriate for the community is included.

1. Preventative

The City has adopted more stringent floodplain regulations and stormwater regulations to minimize flood and storm damage for both new and existing development in floodplains. However, the City's Floodplain Management Committee and City staff recognize more work is needed to cost-effectively manage flood or storm waters within budgeting constraints so that flooding conditions do not get worse as new and infill areas are developed. The City will continue to evaluate fully-developed areas for potential improvement. As flooding regulations are continually being revised by the City in order to better protect and serve its residents, this activity is appropriate for future implementation.

2. Property Protection

The City has addressed property protection by requiring new construction in the high flood risk areas be constructed 2.0 feet above the existing water surface elevation of the 1% annual chance floodplain, or 1.0 foot above the "ultimate" water surface elevation, whichever is higher. Mobile homes must be elevated 3.0' above the 1% annual chance floodplain elevation. Further, developers must submit a Flood Study to the City showing the 1% annual chance floodplain and water surface elevation based on both current land-use and future land-use assumptions. The Floodplain Management Committee and City officials agree that the City should continue participating in the Community Rating System (CRS) program to reduce flood premiums for resident policyholders, increase the number of flood policies City-wide, and guide residents in undertaking property protection measures to safeguard against flooding. The higher standards for new construction in high flood risk areas, Flood Study submittal requirements, and participation of the City in the CRS program are appropriate actions for continued implementation.

3. Natural Resource Protection

To address water quality, the City of Grand Prairie constructed a functioning wetland on deed restricted property between the City's landfill and the Trinity River. This area, covering 86.8 acres, is being studied by the University of North Texas for baseline data regarding hydrologic cycle, annual water retention and existing macroinvertebrates and wetland vegetation. The use of storm water integrated site design to reduce

runoff and pollutants in an effort to protect sensitive forests, wetlands, and habitats is also addressed in the City's Drainage Design Manual. The City will continue to take actions to conserve, restore, and create wetlands. The protection of wetlands and monitoring of the City landfill are appropriate actions to protect the City's natural resources.

4. Emergency Services

The City continues to monitor the public warning system to keep up with growth and adopts new methods of warning that increase the ability to reach citizens that were historically underserved by current systems. Because the current emergency warning system did not include a separate flood warning siren, the City added three (3) flood warning sirens and plan to go live in fall 2021. The City installed new flood gates on SW 3rd Street in August 2021 and incorporated these additions to the Emergency Operations Plan. The warning sirens and flood gates were funded by Stormwater Utility Fees. Continuation of the public warning systems and updates to emergency evacuation procedures are appropriate actions to protect the City's residents and visitors.

5. Structural Projects

The City has made significant improvements to address flood-prone areas and slow drainage issues. New development is managed through current stormwater, drainage, and development requirements. Several older, developed areas continue to be problematic due to flat terrain. These include Sandra Lane and Beltline at Springdale Street.

Possible structural projects for consideration include buyouts in flood-prone areas. The City is also considering adding electronic gates to low-water crossings that can be activated during a flood event. This would provide a greater degree of protection to those roads and bridges that currently have flashing warning lights but no gates. The City added automatic the gates at the Dorchester Levee and will purchase a backup generator in FY 2022. The City applied for the FEMA Hazard Mitigation Assistance (HMA) grant program in FY 2020 to assist with these projects but was unable to get funding. At this time, there are no appropriate structural projects that can be undertaken due to a lack of funding. However, the City will continue to apply to grants such that projects in these known flood risk areas can be implemented in the future.

6. Public Information and Flood Information Assistance

The City's Stormwater Department provides a comprehensive flood information program to the public. Residents may access flood information from the City by visiting the City's Stormwater Department. The City of Grand Prairie Stormwater Department provides flood information, including flood zone determination for specific addresses, floodplain permits for proposed or existing structures, lowest floor elevations, data on historical flooding in the City, and copies of as-built Elevation Certificates, upon request. The City also assists residents in non-technical review of individual properties when requested, as well as guidance on floodproofing, and other mitigation techniques to reduce flooding.

The Program for Public Information (PPI) Committee is developing public outreach opportunities and messages to complement this Plan. There are numerous new outreach projects the PPI Committee plans to implement as part of the CRS recertification. As an example, one project includes an annual brochure mailed to owners and residents in high risk flood zones and special flood risk areas regarding availability of flood insurance to protect both their structure and contents. Other key flood topics such as disaster preparedness will also be included in the letter. Another outreach project is to install permanent 'Turn Around, Don't Drown' signs on flood gauge measurement signs. The City has also completed a project that overlays the digital FIRM maps with other map information and street maps to enable citizens to more easily determine

the flood zone of a property. Due to the infrastructure currently in place for fostering public communication, the PPI outreach activities are appropriate actions to be integrated in this FMP.

STEP 8. DEVELOP AN ACTION PLAN

Following the review of activities in Step 7b, an action plan was drafted that selects and specifies those activities relative to the City's resources, hazards, and risk. The City of Grand Prairie strives for a balanced program including preventative activities both to keep its flood problems from getting worse, and also to protect future development from effects of flooding and other natural hazards.

1. Preventative

The Stormwater Department shall continue to evaluate the current NFIP Floodplain Ordinance and higher regulatory standards for development in flood hazard areas as it pertains to storm water management and future development.

Action: On a project-by-project basis, when proposals by developers or property owners are submitted, the Stormwater Department will evaluate compliance based on current regulations that include higher regulatory standards in high risk or flood-prone areas.

Budget: Staff time (Operating funds)

2. Property Protection

The City will continue to work with the CRS Program for Public Information Committee and Floodplain Management Committee to review outreach projects to educate the public, area businesses, and all citizens about flood risk.

City staff will continue to evaluate and recommend improvements, as needed, to the City-wide Drainage Master Plan. The Stormwater Department will work with other City departments to fund projects and implement improvements.

The City will also comply with CRS program recertification to maintain, or improve, the existing Class 5 rating.

Action: The Stormwater Department will work with other City departments to implement CRS outreach programs, and work with other City departments to make drainage system improvements, including system maintenance, planning, elimination of structural flooding, and reduction of stormwater pollutants carried by stormwater runoff into creeks and streams.

Budget: Staff time (Operating budget, Stormwater Utility fees)

3. Natural Resource Protection

The City of Grand Prairie will continue to work with the University of North Texas to study and monitor the wetland located on the property between the City's landfill and the Trinity River. Mitigation efforts may include using standing vegetation and seed bank community structures in development of a natural and compensatory wetland.

Action: No other activities are required to support natural resource protection at this time.

Budget: Staff time (Grants, Operating fees)

4. Emergency Services

Implement ongoing public education on warning systems and the actions that should be taken to prepare for hazards and disasters. Disaster related public education materials are available through the City's Public Information Office. Public education materials relating to emergency management are available from www.fema.gov, www.redcross.org, and www.ready.gov.

Action: The City will continue to monitor and update emergency services as needed. Future work will include website refinements, software updates, and discharge versus stage rating curve development. The City recently upgraded its platform for monitoring its rain and stream gauges.

Budget: Staff time

5. Structural Projects

Based on discussions with the Floodplain Management Committee, the City continues to seek improvements to older areas of the City that are low-lying and areas of flat terrain that experience poor drainage and minor flooding. Areas include Sandra Lane and Beltline at Springdale Street, and Willow Bend Mobile Home Park and Fox Hollow Apartments. Other structural projects for consideration include adding gates to low-water crossings, automating the gates on the Dorchester Levee, and purchasing backup generators.

Action: Drainage issues have been minimized through additional flood control measures or repairs and improvements to existing flood control structures. City staff will continue to review alternatives to drainage issues in low-lying areas of the City. City staff will pursue possible FEMA grants and other funding sources to buyout flood-prone structures and install electronic gates at low-water crossings.

Budget: Staff time, CIP funding, FEMA funding

6. Public Information and Flood Information Assistance

The Public Information Office provides public information on disaster related materials; the Stormwater Department provides comprehensive flood information to the public. The Emergency Management Department provides disaster preparedness information to residents. The Public Works Department guides residents on protecting the City's waterways from household pollutants and contaminated runoff. Post-disaster redevelopment policies and procedures are outlined in **Annex J** of the City of Grand Prairie's Emergency Operations Plan. Please refer to **Annex J** for more detail on the operations, organization, responsibilities, and procedures following an emergency or disaster. Local damage assessment teams will catalogue initial damages under the direction of a Damage Assessment Officer while City governance arranges coordination with federal and state agencies for disaster assistance. State agencies and volunteer groups may assist displaced residents by providing temporary shelter, food, and clothing. Applications to individual and public assistance programs are also detailed in this document. The City of Grand Prairie's Hazard Mitigation Plan identifies several flood-prone areas within the City limits and assesses the cost to rebuild at approximately 1.4 billion dollars.

Action: Twenty community outreach activities have been identified for Year 2021-2022 under the CRS recertification.

Budget: Staff time, Volunteer time/labor by the Program for Public Information and Floodplain Management Committees



TABLE 7. ACTION ITEMS, GOALS

Action Item	Goal 1: Maximize use of all resources by promoting interagency and interdepartmental coordination and partnerships in the public and private sectors	Goal 2: Strengthen the City against the effects of disasters through the development of mitigation strategies and strict enforcement of current regulations that have proven effective	Goal 3: Reduce, and where possible, eliminate repetitive damage, loss of life, and loss of property caused by disasters	Goal 4: Raise community awareness about potential hazards and the need for community preparedness	Dept./Title Responsible	Timeline	Funding
Reduce Flood Losses and Increase Policy Count	X	X	X		Floodplain Administrator	Annual NFIP Workshops for Public/Stakeholders, ongoing CRS activity	TWDB, FEMA, NFIP
Attend NFIP/CRS Users Group Workshops to share information updates with City staff, Stakeholders	X	X	X		Emergency Manager, Floodplain Administrator	Ongoing. Attend Texas Floodplain Management Association (TFMA), NCTCOG meetings (as scheduled)	FEMA, TWDB, TFMA, TxDEM, NCTCOG
Establish City Disaster Response Team	X	X	X		Emergency Management Office	Ongoing	TXDEM, TWDB, NRCS
Ensure Flood Insurance Rate Maps (FIRMs) are updated	X	X	X		Emergency Management, Stormwater Depts.	FIRM update complete, monitor for Letters of Map Change (LOMCs)	Annual Budget, FEMA CTP program
Acquire, elevate, relocate structures in floodprone areas	X	X	X		Emergency Management, Stormwater Depts.	Ongoing	FEMA /HMGP grants, TWDB FMA grants
Improve CRS rating	X	X	X		Stormwater Dept.	Ongoing	Annual City Budget
Design, construct, maintain drainage improvement projects	X	X	X		Stormwater, Engineering Depts.	Ongoing	Stormwater fee, CIP



STEP 9. ADOPT THE PLAN

Whereas, the City's Floodplain Management Plan provides an overall strategy of programs, projects, and measures that will reduce the adverse impact of the flood hazard on the City of Grand Prairie. The Floodplain Management Plan provides a systematic process of planning to identify existing and future flood-related hazards and their causes, ensures a comprehensive review of all possible activities and mitigation measures so the most appropriate solutions will be implemented to address the flood hazard, educate residents and property owners about the flood hazard, build public and political support for activities and projects that prevent new problems, reduce losses, and protect the natural and beneficial functions of floodplain, and implement recommendations and activities as warranted by community resources, costs, and benefit.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF GRAND PRAIRIE, TEXAS, ON THIS THE 16TH DAY OF NOVEMBER 2021.

APPROVED:

See signed resolution

Mayor

ATTEST:

City Secretary

City Attorney



STEP 10. IMPLEMENT, EVALUATE, AND REVISE THE PLAN

Implementation of the City's Floodplain Management Plan and Program for Public Information and Coverage Improvement Plan Appendices will be administered by the Stormwater Department. The department(s) listed in the Action Plan shall be responsible for overseeing implementation of the Plan.

The Plan will be evaluated annually by the Floodplain Management Committee. Any Committee recommendations for adoption, deletions, or other changes to the Floodplain Management Plan or Program for Public Information Plan will be included in an annual report to the City Council.

The annual report will be prepared by the CRS Coordinator and the Committee. It will provide an overview of the Plan and progress accomplished during the previous 12 months towards implementing the Action Plan. Any items not achieved will be specifically addressed in the annual report, and if appropriate, alternative recommendations for action provided. Any recommended amendments to the Plan will be presented to the City Council for adoption. The annual report will be available to the public, posted to the City's website, and released through social media.



APPENDIX 1: CRS Floodplain and Stormwater Program for Public Information (PPI)

2021-2026

Introduction

This document is an update to the City of Grand Prairie the 2015 Program for Public Information (PPI) Plan under the Community Rating System Program. This PPI was developed by the Floodplain Management Plan (FMP) Committee comprised of representatives from an equitable and diverse cross section of the community, including a real estate agency, an insurance agency, interested citizens, and City staff. This document includes a summary of proposed PPI Action Items and formulated messages for the 2021-2026 Floodplain Management Plan as discussed at the FMP Committee Meetings. The City Stormwater Department will monitor the projects as they are developed, as well as the results from them. They will record inputs from Committee members and suggestions from other City employees and stakeholders participating in the activities. That input will be sent by email to Committee members for consideration and evaluation. The outcome of each proposed PPI action item will be assessed by the FMP Committee at an annual meeting and members can recommend any changes. In conjunction with the FMP evaluation report, the PPI outcomes and revisions will be submitted to City Council in an PPI evaluation report as part of the City's annual recertification to the Community Rating System (CRS).

Community PPI Needs

The City of Grand Prairie is located in Texas and situated partially within both Dallas and Tarrant Counties. The City's boundary also extends into Ellis County. Grand Prairie is centrally located in the Dallas-Fort Worth-Arlington Metropolitan Statistical Area and has a population of 194,543. The City has a total area of 81 square miles, of which 72 square miles is land and 9 square miles, or 11%, is water. The West Fork of the Trinity River and major tributaries Johnson Creek, and Mountain Creek, flow through Grand Prairie.

Grand Prairie has a long history of flooding from Johnson Creek. In the 1980s, a major U.S. Army Corps of Engineers project was begun to straighten the channel, which reduced the damage from flooding. Flooding is relatively minor throughout the City during thunderstorms or rainfall events; however, there are several areas of the City, including a mobile home park and an apartment complex that can experience moderate to severe flooding during heavy rainfall events.

The City of Grand Prairie has diverse cultural, language, religious and ethnic segments of the population. Of the 182,610 residents, 43% are Hispanic or Latino. The demographic composition of the City is an important consideration when overcoming potential obstacles associated with language barriers. Therefore, the Committee recognized that effective and widespread communication is important to distributing messages utilizing the right tools, resources, and venues to best target all residents. The Committee also recognized that any message must be



repeated and distributed multiple times, and in a variety of different forms. For example, delivering the message to drivers to ‘Turn Around, Don’t Drown’, would be more effective if promoted in multiple ways, such as on highway billboards, flashing warning signs, radio broadcast, and the local television weather broadcast.

The City of Grand Prairie has developed educational and outreach projects over the years with input and support from community volunteers, numerous area business partners and organizations, and by incorporating innovative methods. In 1999, the Stormwater Department created an official outreach program to educate, prepare, and assist residents in protecting their property from flooding. The existing outreach program is implemented through, but not limited to, social media, the City’s website, and ‘The Pipeline’ newsletter. The City’s existing public information and outreach efforts are summarized in the Table A below. The table includes projects that are already in place that will be expanded upon through the PPI to support the goals of the City’s CRS program.

Table A. Existing Public Information Project Efforts

Organization	Project	Subject Matter	Frequency
City Stormwater Department	Flood information obtained by visiting the City in person, by phone, or email. The City’s website also provides flood information on key topics	Provides flood information, including flood zone determination and BFEs for specific addresses, required lowest floor elevations information, data on historical flooding, and non-technical review of structures and guidance on floodproofing and other mitigation techniques to reduce risk of flooding. Financial advice and list of resources to assist homeowners in offsetting the cost of mitigation a structure is also available to the property owner.	Ongoing
City Stormwater Department	Mailing to SFHA residents	Various flood-related topics	Annual
City Stormwater Department	Mailing to SFHA rental properties and areas of special flood or erosion risk in Joe Pool Dam area, Kirby Creek area, mobile home subdivisions, an apartment complex	Availability of NFIP building/contents insurance (English and Spanish), and downstream of dam site	Annual



Organization	Project	Subject Matter	Frequency
City Stormwater Department	Update flood brochures/information in public libraries and buildings	Various flood-related topics	Quarterly
City Stormwater Department	Mailing to Real Estate/Insurance agents/Lenders	Requesting agents and lenders to distribute critical flood messages to clients/borrowers and visit the City's website for flood information	Annual mailing to lenders/real estate/insurance agents; request Stakeholders distribute key flood messages throughout the year
Water Utility	Insert in monthly water bill	Various flood-related topics	Annually
Water Utility & City website	Insert City newsletter in water bill and post to City's website	Various flood-related topics	Annual utility inserts of City newsletter and ongoing website information
City Stormwater Department	Posting to City's website and via social media accounts	Various flood-related topics	Year-round
Texas Department of Transportation	Highway message board	"Turn Around, Don't Drown"	In conjunction with flood alerts
City Public Information Office	City-owned billboards	Various flood-related topics	In conjunction with flood alerts
City Stormwater Department	Permanent messages on flood markers/gauges at low-water crossings	"Turn Around, Don't Drown"	Ongoing
Grand Prairie Independent School District (GPISD)	Train bus drivers	'Turn Around, Don't Drown', know flood risk at low-water crossings, protecting bus passengers in flood event	Annually
City Grand Connection bus service	Train bus drivers	'Turn Around, Don't Drown', know flood risk at low-water crossings, protecting bus passengers in flood event	Annually
City Stormwater Department	Community Events	Various flood topics and flood model demonstration at booth	Annually



Organization	Project	Subject Matter	Frequency
City Stormwater Department	Promote free weather application for cell phones via City website	‘Turn Around, Don’t Drown’, weather alert information	Ongoing
City Stormwater Department website/Public Works Department	Promote flood protection, natural floodplain area protection	Detailed flood protection measure information, real-time stream gauge data, warning, safety, evacuation; “Only water goes down the drain”, hazards of dumping debris and home- based chemicals in drains	Ongoing

The purpose of this document is to guide City Officials and Staff on how to implement floodplain information outreach projects that would be most beneficial to all residents of Grand Prairie as well as residents in targeted areas. The City identified target audiences and areas that would benefit the most from an increase in awareness of the CRS and City priority topics, including:

- Topic A: Know your flood hazard
- Topic B: Insure your property for your flood hazard
- Topic C: Protect people from the hazard
- Topic D: Protect your property from the hazard
- Topic E: Build responsibly
- Topic F: Protect natural floodplain functions
- Topic G: Pre-disaster planning
- Topic H: Plan an evacuation route/Shelter in place

The targeted audiences and priority areas for PPI projects within the City were determined in conjunction with the City’s flood insurance assessment, summarized in APPENDIX 2 of this 2021-2026 FMP. These audiences and areas include but are not limited to:

Targeted Audience

- Target Audience 1 - Repetitive Loss Property Owners: Using repetitive flood insurance claims, and FEMA’s Repetitive Flood Loss Report, the City has identified seven repetitive loss properties within the City. In previous years, there were additional structures in the City considered by FEMA to be repetitive loss structures. However, the City has worked with property owners to undertake flood mitigation measures, or otherwise improve the structures so they are no longer subject to repetitive flood damage. The City is considering pursuing buyouts of structures located in the SFHA as a future project in their Floodplain Management Plan. This analysis concludes that rather than waiting for a flood to occur, a community can protect property from flood damage through a proactive flood protection program that includes various ways to minimize or eliminate flooding.



- Target Audience 2 – Residents in the Floodplain: Residents in these high-risk flood prone areas will receive annual mailings regarding flood risk information, flood insurance availability, disaster preparedness information, and other pertinent flood information.
 - Target Audience 3 – Residents in Dam Breach Inundation Zones
 - Target Audience 4 – Residents in Erosion Hazard Zones along Kirby Creek
 - Target Audience 5 – Renters
 - Target Audience 6 – All citizens: All residents and businesses throughout the City need to be aware of flood risk, availability of flood insurance, disaster preparedness and other pertinent flood information. Several Stakeholder groups have been identified to assist in outreach efforts. The Committee identified other sub-groups to consider when promoting flood messages. For example, residents with computer access may more readily visit the City’s website for flood information and building requirements, and residents that utilize phone applications may quickly access weather information and warnings.
 - Target Audience 7 – Drivers Near Low Water Crossings: locations with automated signage and flashing lights:
 - Riverside Dr @ WFTR
 - Carrier Pkwy @ Cottonwood Creek (with LWC gates)
 - E Jefferson St
 - 3rd St @ Cottonwood Creek (McFalls Park)
- Locations with automated signage but no lights:
- Robinson Rd and Marshall Rd @ Cottonwood Creek
 - Carrier Pkwy @ I-20
 - Robinson Rd @ I-20
- Locations permanent signs at locations prone to flooding:
- Eastbound Jefferson at Mountain Creek
 - Northbound Carrier at Cottonwood Creek
 - Southbound Carrier at Cottonwood Creek
 - Northbound SW 3rd at Cottonwood Creek
 - Southbound SW 3rd at Cottonwood Creek
 - Northbound Riverside at low water crossing
 - Westbound Riverside at low water crossing
- Target Audience 8 – Residents near Flood Sirens
 - Target Audience 9 – Residents near Flood Gates



- Target Audience 10 – Lenders, Realtors, and Insurance Agents: The City plans to provide these groups with tools and information to educate their clients on flood issues and direct them to the City’s website for additional information regarding flood risk, availability of flood insurance, FEMA’s ‘Mandatory Purchase of Flood Insurance’ for properties located in SFHAs, and other information. The City has identified these Stakeholder groups as resources for distributing flood messages to new property owners, insurance policyholders, Spanish-speaking residents, and others. Topics may include understanding flood zones and flood risk, and building requirements in SFHAs.
- Target Audience 11 – Bus Drivers: The City of Grand Prairie Independent School District (GPISD) has been a voice for the ‘Turn Around, Don’t Drown’ (TADD) campaign in the public school system in the past, and recognizes a need for stronger communication in getting out the flood message. One of the City’s goals is to work with GPISD and the City’s bus service ‘Grand Connection’ to educate bus drivers on flood risk and danger of driving through low-water crossings and flooded roadways.
- Target Audience 12 – Spanish Speaking Residents: Approximately 43% of residents are Hispanic or Latino according to the 2010 Census. Committee members agree that this segment of the population may not be as aware as other residents regarding potential flood risk since most of the previous outreach materials were available only in English. Future outreach will include a community-wide Spanish-language newsletter insert into the water utility bill along with providing flood information to Spanish television stations, and other social media in order to engage the Spanish-speaking community.
- Target Audience 13 – Drivers Citywide: The City has the ability to post messages on the following TxDOT message boards that provide visual reminders regarding flood awareness:
 - Arkansas SB at SH-161 Service Rd. (next to PSB)
 - Conover at SH-161 NBFR
 - Fort Worth St at SH-161 SBFR
 - IH-30 at SH-161 SBFR
 - Main St at NW 7th West Bound
 - Mayfield at SH-161 NBFR
 - Tarrant at SH-161 NBFR

The City owns five message boards placed at these locations:

- I-20 @ Carrier Parkway, Roy Orr (Mike Lewis Park)
- MacArthur north of I-30 at landfill entrance
- inside City Hall
- Lake Ridge Parkway near Lynn Creek Park
- Warrior Dr near PlayGrand Adventures and the Prairie Paws Animal Shelter



Targeted Area

- Target Area 1 - Repetitive Loss Areas: The City has identified seven repetitive loss properties within the City and grouped them in to four repetitive loss areas.
- Target Area 2 – Floodplain and Buffer Zones: High-risk flood prone areas including areas within 200 feet of the regulatory floodplain.
- Target Area 3 – Dam Breach Inundation Zones: Areas downstream of high hazard dams, including Joe Pool Lake Dam
- Target Area 4 – Erosion Hazard Zones along Kirby Creek: Areas determined as erosion hazard zones according an erosion evaluation.
- Target Area 5 – All areas in the City of Grand Prairie: All residents and businesses throughout the City need to be aware of flood risk, availability of flood insurance, disaster preparedness and other pertinent flood information.
- Target Area 6 – Low Water Crossing and Flood Gate Locations
- Target Area 7 – Areas near Flood Sirens

PPI Projects

Annual outreach projects and flood response PPI projects were developed in conjunction with the City’s flood insurance assessment, summarized in APPENDIX 2 of this 2021-2026 FMP. Sample messages and the desired PPI project outcome for each of the CRS and City’s priority topics are included in Table B below.

Table B. Messages and Outcomes for Priority Topics

Priority Topic	Sample Messages	Desired Outcome
A. Know your flood risk	Know your flood hazard zone, your property is subject to flooding, the City provides flood risk determination services, What is a 500-year flood?, flash flood risks, the City provides flood information assistance and site visits, Floods are among the most frequent and costly natural disasters.	Increase flood information inquiries to Stormwater Department
B. Insure your property for your flood hazard	Protect and insure your structure, FEMA Mandatory Purchase Requirement, mitigation measures for structures are available, funding resources are available, Everyone needs flood insurance, Lenders require flood insurance in SFHAs, Flood insurance is available City-wide, Renters should buy contents coverage, insure your property, Save on flood insurance - GP Maintains CRS Rating of 5, Do You Have Flood Insurance?, Standard homeowner policies do not cover damage from floods	Increase number of flood policies in SFHAs and community-wide, including flood insurance promotion by an elected official



Priority Topic	Sample Messages	Desired Outcome
C. Protect people from the flood hazard	‘Turn Around, Don’t Drown’, pre- and post-disaster tips are available, and flood safety is important, driving around flood barricades is unlawful, Vehicles can be washed away in swift water, images of low water crossing flashing lights, real-time rain gauge information, severe storm flood warning, road closures associated with rain gages, pay attention to flood warning signs, floodwaters float a vehicle, crossing road barrier can result in fines, road may flood, when flooded turn around don’t drown, water over road when flashing	Reduce number of water rescues, police citations for ignoring barricades, increase safety through City website information on warnings, real- time stream gauge data, evacuation, and shelter information
D. Protect your property from the flood hazard	Elevate structures and utilities, floodproof existing structures, improve drainage issues on your property, FEMA P-312: Homeowner’s Guide to Retrofitting 3rd Edition (2014), Flooding can damage your home. Discover your flood hazard, Does Your Property Flood? Be Prepared	Increase number of applications for flood protection measures for properties in the floodplain
E. Build responsibly	Construction projects must meet local floodplain, zoning regulations and building codes are in force, get a permit for building and remodeling, substantial damage rules if in SFHA, the City of Grand Prairie requires by ordinance that any substantial improvement or substantial damage improvement must have a building permit	Reduce number of building department and code enforcement violations
F. Protect natural floodplain functions	Keep waterways clean on both public and private property, no pollutants down the storm drain, no debris in area waterways, it is illegal to dump debris into storm drains, protect natural floodplain functions, the City’s ordinances and building codes guide and regulate construction in floodplains, the undisturbed river bottoms of the Trinity River and wetlands provide a wide range of benefits to the human and natural systems.	Reduce debris and contaminants dumped in rivers, wetlands, streams
G. Pre-disaster planning	Prepare for flooding and other natural disasters, know your shelter location, know pre- and post-disaster safety tips, know whether warning signals, make a severe weather plan, Use the AlertGP phone application for advanced warnings, the ability to safely evacuate residents during a disaster depends on strong disaster preparedness planning and requires the cooperation of all affected citizens.	Residents prepare pre-disaster plans
H. Plan evacuation route/Shelter in place	Know evacuation routes, ‘Turn Around, Don’t Drown’, Move to higher ground if possible, Shelter in place, road closures associated with rain gages, follow flood siren warnings, If flooding is imminent and evacuation is advised, the City of Grand Prairie will notify you through local radio and Cable TV	Residents evacuate or shelter in place (where appropriate) before floodwaters reach their homes without overcrowding the roads



Annual Outreach Projects

The City identified specific PPI outreach projects for each priority audience, area, and topic and identified who is responsible for implementation, when they will be completed, and if a stakeholder is involved. The table below includes a comprehensive list of outreach projects that will be implemented every year. The PPI Committee recommends projects that encourage messages and desired outcomes listed in Table B for the identified target audiences and areas.

Table C. Outreach Projects

Project	Target Audience	Target Area	Priority Topic	Assignment	Schedule	Stakeholder
1 Flood Information on City Website in English/Spanish - Website will be verified annually to ensure it is active and working. The webpage also includes the English and Spanish floodplain brochures, information on Flood Insurance Rate Maps, list of elevation certificates, and real-time gage data. Website will include language to satisfy Activity 350 WEB1 and a link to the mayoral letter to encourage the purchase of flood insurance to satisfy Activity 370 CP.	2, 6, 12	5	A, B, C, D, E, F, G, H	City Stormwater Department, Public Information Office, Elected Official	Ongoing	City Stormwater Department, Public Information Office, Elected Official
2 Flood Awareness Posts to Social Media - Facebook, Twitter, Instagram, and NextDoor accounts will be verified annually to ensure they are active and working. Includes participation in Texas Flood Awareness social media campaign in May. Hashtag #FloodTalkGPTX will be used.	6	5	A, B, C, D, E	City Stormwater Department, Public Information Office	Monthly & During Rain Events	City Stormwater Department, Public Information Office



Project	Target Audience	Target Area	Priority Topic	Assignment	Schedule	Stakeholder	
3	Flood Articles in The Pipeline newsletters - Pipeline newsletters are sent in the water bill and can be found on the City's website. Pipeline Direct newsletter is sent by email every 2 weeks. The Pipeline newsletter is only available in English. The flood-related articles have been translated into Spanish and are available on the Floodplain page of the City's website. Messaging will include mayoral letter to encourage the purchase of flood insurance to satisfy Activity 370 CP and language to satisfy Activity 320 MI, 360 PPV, and Activity 540 SDR publicity on an annual basis.	6, 12	5	January: A, B, D, G, H February: B March: A, C April: A, B, D, G May: A, B, C, D, F June: B, D, E (320 MI) July: E August: B (370 CP) September: A, C October: A, B (360 PPA, PPV, FAA & 370 TA) November: B December: F (540 SDR)	City Stormwater Department, Public Information Office, Elected Official	Monthly	City Stormwater Department, Public Information Office, Elected Official
4	TxDOT Message Boards - Post messages on the available TxDOT message boards that provide visual reminders regarding flood awareness	11, 13	5	C	TxDOT	During Rain Events	TxDOT, City Stormwater Department, Public Information Office
5	City Message Boards - Post messages on City owned message boards that provide visual reminders regarding flood awareness. The City changes the messages on each board daily. Each board is scheduled to display a different message so that multiple messages are being seen by drivers each day. However, the	11, 13	5	C	City Stormwater Department, Public Information Office	Monthly and During Rain Events	City Stormwater Department, Public Information Office



Project	Target Audience	Target Area	Priority Topic	Assignment	Schedule	Stakeholder
City has the ability to override the scheduled message to address a specific incident when rain is anticipated or experienced.						
6 Signs at City Flood Gauges and Low Water Crossings - Annual Verification of Existing Signs. The signs are installed at the three low water crossings with flashers. We have a series of three automated signs to warn drivers.	7, 9, 13	6		City Stormwater Department	Ongoing	City Stormwater Department
7 Tabletop Flood Model and Erosion Trailer at Community Events throughout Grand Prairie - includes Main Street Fest, Farmers Market, Crawfish Boil, Asian Times Square Festivals, Hatch Chile Fest, National Night Out Kick Off Party, and Epic Central Events. City staff and volunteers will hand out stuffed bags with miscellaneous items such as TADD stickers, FEMA brochures, City brochures, 'Contents Only' Insurance postcards (English and Spanish), emergency supply kit, coloring books, tattoos, pens, pencils, etc. at the event. Free shirts with TADD will be given to all volunteers.	6, 13	5	A, B, C, D, E, F, G	City Stormwater Department	Minimum 8 times a year	City Stormwater Department

Grand Prairie

T E X A S

Project	Target Audience	Target Area	Priority Topic	Assignment	Schedule	Stakeholder	
8	AlertGP Phone Application - An article promoting free AlertGP app will be published in the Pipeline.	6	5, 7	C, G, H	City Public Information Office, Emergency Management Department	Ongoing	City Public Information Office, Emergency Management, Stormwater Department
9	Flood Brochures, TFMA Calendars, and Flood Information at City Library and City buildings - The brochures provide relevant floodplain information to the public in English and Spanish. Verified quarterly that brochures and information are still in Library and City Lobbies. English and Spanish floodplain brochures are available at City Hall, The Grand Prairie Main Library, Betty Warmack Library and The Development Center.	6, 12	5	A, B, C, D, E, F	City Stormwater Department	Quarterly	City Stormwater Department, TFMA, FEMA
10	Brochure mailer to Residents in the SFHA - Flood Information Brochure in Both English and Spanish to be Mailed	2	2	A, B, C, D, E, F	City Stormwater Department, Public Information Office	Annual	City Stormwater Department
11	Brochure and letter to residents in RL areas - Flood Information Brochure and Letters in Both English and Spanish to be Mailed	1	1	A, B, C, D, E, F	City Stormwater Department, Public Information Office	Annual	City Stormwater Department
12	Postcards to renters - "Contents Only" insurance information postcards in Both English and Spanish Mailed to Residents Who Rent Property in the SFHA or Flood Prone Areas. A sample floodplain insurance rate	5	5	A, B, C, D	City Stormwater Department, Public Information Office	Annual	City Stormwater Department, Public Information Office



Project	Target Audience	Target Area	Priority Topic	Assignment	Schedule	Stakeholder
can be included in the postcard language.						
13 Flood postcards to residents below Joe Pool Lake Dam - postcards in Both English and Spanish to be Mailed	3, 12	3	A, B, C, D, G	City Stormwater Department, Public Information Office	Annual	City Stormwater Department, Public Information Office
14 Flood postcards to residents of Kirby Creek erosion area - postcards in Both English and Spanish to be Mailed	4, 12	4	A, B, C, D	City Stormwater Department, Public Information Office	Annual	City Stormwater Department, Public Information Office
15 Flood postcards to residents near flood sirens - postcards in Both English and Spanish to be Mailed	8, 12	7	A, C, G, H	City Stormwater Department, Public Information Office	Annual	City Stormwater Department, Public Information Office
16 Floodgate Information Postcards Mailed to Residents of Flood gates at Carrier and SW 3rd St- postcards in Both English and Spanish to be Mailed	7, 9, 12, 13	6	A, C, G, H	City Stormwater Department, Public Information Office	Annual	City Stormwater Department, Public Information Office
17 Mandatory purchase information, letter to lenders and insurance agents - the letters are mailed in English and Spanish. The letter indicates that insurance and real estate professionals should advise residents and house hunters about flood hazards and flood insurance to satisfy Activity 370 CP.	6, 10, 12	5	A, B, C	City Stormwater Department, Public Information Office	Annual	City Stormwater Department, Public Information Office, Lenders, Insurance Agents



Project	Target Audience	Target Area	Priority Topic	Assignment	Schedule	Stakeholder
18 Mandatory purchase information, letter and REB brochure to realtors - the letters are mailed in English and Spanish; the brochure mailed in English only. The letter indicates that insurance and real estate professionals should advise residents and house hunters about flood hazards and flood insurance and the brochure is provided for real estate agents to provide to house hunters to satisfy Activity 340 REB.	6, 10, 12	5	A, B, C	City Stormwater Department, Public Information Office	Annual	City Stormwater Department, Public Information Office, Realtors
19 Bus Driver training - At Grand Prairie ISD: City staff to provide TADD bus driver training including a pre-recorded PowerPoint presentation along with a pre-recorded video of the tabletop flood model to show the power of floodwaters. The video will be distributed to the schools to use for on-line training. At Grand Connection Bus Services: City staff to provide TADD bus driver training including a pre-recorded PowerPoint presentation along with a pre-recorded video of the tabletop flood model to show the power of floodwaters. The video will be distributed to use for on-line training.	11	5, 6	A, C	City Stormwater Department, Public Information Office	Annual	City Stormwater Department, Public Information Office, Grand Prairie ISD, Grand Connection Bus Services
20 "Do Not Dump" Markers at Key Locations - markers indicate the City's	6	5	F	City Stormwater Department	Ongoing	City Stormwater Department



Project	Target Audience	Target Area	Priority Topic	Assignment	Schedule	Stakeholder
regulatory requirements that prohibit stream dumping. Markers include language to satisfy Activity 540 SDR publicity.						

Other CRS Activity Initiatives

Other public information activities are completed in support of CRS Activity credit. Activities like maintaining the floodplain website, offering technical assistance, and providing flood protection services are conducted and publicized according to the following procedures.

- Activity 320 MI: The City of Grand Prairie Stormwater Department provides flood information, including flood zone determination for specific addresses, floodplain permits for proposed or existing structures, lowest floor elevations, data on historical flooding in the City, and copies of as-built Elevation Certificates, upon request. The CRS publicity requirement for this activity is met through several of the floodplain-related articles that are published in the City’s Pipeline newsletter (Outreach Project 3). Pipeline newsletter messages include the following language: “The City of Grand Prairie Stormwater Department has comprehensive flood information available to the public. Residents can obtain flood risk information including basic map information, copies of elevation certificates, floodway information, depth of flooding information, historical flood data and more by visiting the City Stormwater Division in person at 300 W. Main St., calling 972-237-8321 or visiting the city website at gptx.org/stormwater.”
- Activity 340 REB: The City of Grand Prairie Stormwater Department encourages real estate agents to give house hunters a brochure (Outreach Project 18). A mailer sent to realtors includes a letter and a copy of the brochure. The brochure advises the reader to check to see if a property is in a floodplain or has a history of flooding. The brochure messages include the following language: “If you are looking at buying a property, it is a good idea to check out the possible flood hazard before you buy.” and “Looking for a new home? Have you checked out whether it has ever flooded or had a drainage problem? Even a shallow flood that is only a few inches deep in your house could cause thousands of dollars in damage, and loss of irreplaceable keepsakes. Deeper floods mean you will have to relocate until repairs are made.”
- Activity 350 WEB: The City of Grand Prairie’s floodplain website (Outreach Project 1) provides information for PPI priority topics A, B, C, D, E, F, and G and includes sample messages provided in Table B. A separate tab for each priority topic, including protecting people from the hazard and pre-disaster planning. A link for citizens to look up addresses where Elevation Certificates are on file is included on the floodplain webpage. City, USGS, NOAA, and NWS real-time gage information is also available so that users can monitor current water levels.



- 360 PPA, PPV, FAA: The City of Grand Prairie Stormwater Department’s CFM certified staff assists residents in one-on-one review of individual properties when requested, as well as financial assistance guidance for floodproofing and other mitigation techniques to reduce flooding and protect their property. CFM certified staff also conduct property site visits to review flooding, drainage, and sewer problems and provide advice to residents on how to protect their property from the flood hazard. The CRS publicity requirement for this activity is met through several of the floodplain-related articles that are published in the City’s Pipeline newsletter (Outreach Project 3) and brochure and letter mailers (Outreach Project 9, 10 and 11). Pipeline newsletter messages include the following language: “Check with the Stormwater Department (972-237-8321) on the extent of past flooding in your area. Department staff can discuss the causes of repetitive flooding, the City’s actions to address flooding, and potential activities that you might consider doing to better protect your property and possessions. They can also visit your property to discuss potential flood protection alternatives.” The brochure and letter mailers include the following language: “City staff can provide advice on how to correct drainage issues, how to retrofit existing property, information on grant opportunities to elevate your home, and other flood protection assistance including sources for financial assistance.”
- Activity 370 TA: The City of Grand Prairie Stormwater Department provides flood insurance advice to inquirers. The CRS publicity requirement for this activity is met through several of the floodplain-related articles that are published in the City’s Pipeline newsletter (Outreach Project 3). Pipeline newsletter messages include the following language: “Purchase flood insurance. Anyone can purchase flood insurance in Grand Prairie. Contact your insurance agent for more information on rates and coverage. If your insurance agent does not offer FEMA flood insurance, visit www.fema.gov/nfip to find a local agent who offers flood insurance or call the Stormwater Department at 972-237-8321 for assistance.”
- Activity 540 SDR: The City of Grand Prairie has regulatory requirements that prohibit stream dumping. The CRS publicity requirement for this activity is met through the floodplain-related articles that are published in the City’s Pipeline newsletter (Outreach Project 3). Pipeline newsletter messages include the following language: “A stream dumping ordinance prohibits littering in the drainage system and in bodies of water. Because dumping can create flooding and harm the environment, please report suspicious dumping activities to the Stormwater Department. Report any illegal dumping to 972-237-8141.”



Flood Response Preparation Projects

In addition to projects that are implemented every year, the PPI Committee determined flood response projects that encourage best practices after a flood. The City identified specific PPI flood response projects for each priority audience, area, and topic and identified who is responsible for implementation, when they will be completed, and if a stakeholder is involved. A schedule will be developed for implementing projects before, during, and after a flood. The projects listed in Table D below are prepared and made ready for reproduction and dissemination after a flood warning.

Table D. Flood Response Projects

Target Audience	Topic	Outcome	Proposed Project	Assignment
Flooded Property Owners and Residents	<p>Topic C Protect people from the flood hazard</p> <p>Message 1: Follow proper safety precautions before using your water and food</p> <p>Message 2: Stay clear of standing water; it may be deeper than you think and could contain hazardous material</p>	Stay clear of flooded areas, ‘Turn Around, Don’t Drown’; Maintain health throughout the cleanup period; Avoid preventable accidents by staying away from standing water	(FRP#2): Provide flood protection measure information, flood safety tips, protecting waterways via City website, social media	City Stormwater Department, Building Department, Emergency Management, Public Works Department
	<p>Topic D Protect your property from the flood hazard</p> <p>Message 1: Retrofit, elevate your home or business</p>	Increase in inquiries on floodproofing/retrofitting measures; Mitigate those structures below the current BFE	(FRP#1): Packet of information placed on doors in flooded neighborhoods, based on available City staff; promote through City website, social media, public library, and include contact information of pertinent City offices, utility companies	
	<p>Topic E Rebuild Responsibly</p> <p>Message 1: Get permits before you build</p>	Increase number of permits, elevation certificates on file; Decrease number of structures being repaired without permits	FRP#1 will contain this information	
	Topic F			



Target Audience	Topic	Outcome	Proposed Project	Assignment
	Protect natural Floodplain functions Message 1: Only water goes down household drains and in storm drains	Protect water quality post-flooding and dumping in storm drains	FRP#2 will contain this information	Public Works Department
City-Wide Prior to Flooding	Topic C Protect people from the flood hazard before the flood Message 1: Be informed regarding which roadways flood, shelter locations, warnings, and disaster preparedness kits ready	Promote pre-flood protection measures such as real-time stream gauge monitoring, shelter locations, warnings via City website.	FRP#2 will contain this information	City Stormwater, Building Department, Emergency Management, Public Works Departments
	Topic D Protect your property from the flood hazard Message 1: Retrofit or elevate your home or business	Increase in inquiries on floodproofing/retrofitting measures; decrease structures below the BFE	FRP#1 will contain this information	City Stormwater Department, Building Department
	Topic E Build Responsibly	Increase number of elevation certificates on file; ensure structures have permits	FRP#1 will contain this information	City Stormwater Department, Building Department
	Topic F Protect natural Floodplain functions Message #1 Only water goes down household drains and in storm drains	Improve water quality	FRP#2 will contain this information	Public Works Department



APPENDIX 2: CRS Coverage Improvement Plan 2021-2026

In coordination with the FMP and PPI Plans, the CRS Coverage Improvement Plan summarizes the Outreach Projects the City of Grand Prairie will do to improve flood insurance coverage within the community. The FEMA Region 6 Office insurance liaison, John Bowman, was contacted in May 2021 to collect general and property-specific flood insurance policy data. A Flood Insurance Assessment (FIA) was performed assessing the current level of flood insurance coverage throughout the city. Flood insurance results of the FIA were then incorporated into this ‘Coverage Improvement Plan’ (CP) to identify where coverage needs to be improved. The CP was developed and reviewed during the FMP Committee Meetings to determine the most effective ways to increase the policy count city-wide as well as in targeted areas. The FEMA Region 6 Office insurance liaison was contacted again to provide a copy of the CP and request assistance or useful information to support the plan.

FLOOD INSURANCE ASSESSMENT:

Flood Zone	2015	2016	2017	2018	2019	2020	2021
Policies in Zone AE	49	58	67	74	67	60	59
Policies in Zone A	2	2	2	2	1	1	1
Policies in Zone X	225	228	234	264	307	298	273
Total	276	288	303	340	375	359	333
Occupancy							
Single Family Policies	231	242	250	275	302	295	276
2-4 Family Policies	1	1	1	2	3	4	3
Other Residential Policies	4	9	9	18	22	19	12
Non-Residential Policies	40	43	43	45	48	41	42
Total	276	295	303	340	375	359	333

Notes: 2016 as of June 30, 2017; 2017 as of May 31, 2017; 2018 as of February 28, 2018; 2019 as of May 31, 2019; 2020 as of October 2, 2020; 2021 as of July 15, 2021.

The current number of buildings within the FEMA mapped Special Flood Hazard Area (SFHA) is approximately 497. Based on this information, approximately 12% of the buildings located in the SFHA are covered by flood insurance. The majority of flood insurance policies within the City are for buildings located outside of the SFHA. There are approximately 254 non-residential buildings in the SFHA which indicates that a maximum of 16% of non-residential properties are covered by



flood insurance.

The City identified target areas that would benefit the most from an increase in insurance coverage. The target areas were identified in conjunction with the PPI outreach plan's priority Topic B. These areas include:

- Target Area 1 - Repetitive Loss
- Target Area 2 – Floodplain
- Target Area 3 - Dam Breach Inundation
- Target Area 4 – Erosion Hazard Zones along Kirby Creek
- Target Area 4 – Renters
- Target Area 5 – All citizens

The City will use sample messages listed in Table B on the PPI plan as an opportunity to inform people of the availability and benefits of flood insurance coverage. The following is a summary of activities to promote the increase of flood insurance coverage that will be implemented by City of Grand Prairie Stormwater Department.

SUMMARY OF OUTREACH PROJECTS:

Project 1: Post Flood Insurance Information on City Website and on Social Media in Both English and Spanish (*Project 1 in PPI*) – Ongoing project

City Website Floodplain page was operational on July 30, 2021. The webpage includes the English and Spanish floodplain brochures and Floodplain information.

Project 2: Mayoral letter promoting Flood Insurance in The Pipeline newsletter in English and Spanish (*Project 1 and 3 PPI*) – Annual project

Project 3: FEMA Flood Insurance Brochures in City Library, City Lobbies, and Epic (*Project 9 in PPI*) – Ongoing project

English and Spanish floodplain brochures are available at The Grand Prairie Main Library, Betty Warmack Library, City Hall, Epic, and The Development Center

- Establish a quarterly schedule to check/restock the brochure supply at City facilities described in this section.

Project 4: Flood Insurance Message on City-Owned Electronic Message Board (*Project 5 in PPI*) – Ongoing project

The City owns five message boards that provide visual reminders regarding flood awareness, placed at these locations: I-20 @ Carrier Parkway, Roy Orr (Mike Lewis Park), MacArthur north of I-30 at landfill entrance, inside City Hall, Lake Ridge Parkway near Lynn Creek



Park, and Warrior Dr near PlayGrand Adventures and the Prairie Paws Animal Shelter.

Sample Schedule and Messages:

- January
Protect Your Property from a Flood
gptx.org/flood-safety
- February
Do You Have Flood Insurance?
floodsmart.gov
- March
Does Your Property Flood? Be Prepared
gptx.org/flood-safety
- April
Turn Around Don't Drown and Do You Have Flood Insurance
floodsmart.gov
- May
Turn Around Don't Drown and Do You Have Flood Insurance
floodsmart.gov
- June
Turn Around Don't Drown and Do You Have Flood Insurance
floodsmart.gov
- July
Insure Your Property from Flooding
gptx.org/flood-insurance
- August
Do You Have Flood Insurance?
floodsmart.gov
- September
Protect Your Property from a Flood
gptx.org/flood-safety
- October
Renters should buy contents coverage.
- November
Do You Have Flood Insurance?
floodsmart.gov
- December
Do You Have Flood Insurance?
floodsmart.gov



The messages will be updated each month and cycle through the message board display system with several other messages.

During a big rain event, the sign stating Turn Around Don't Drown will be displayed.

If flooding is in progress, the sign stating Crossing Road Barrier Can Result in Fines will be displayed.

Project 5: Flood Insurance Message in The Pipeline Newsletter in English and Spanish (*Project 3 in PPI*) – Ongoing project

- Pipeline topics will include:
 - Flash Flood Risks
 - Public Information and Flood Information Assistance
 - GP Maintains CRS Rating of 5
 - Protect Natural Floodplains
 - Flood Insurance Information
 - Turn around Don't Drown
 - Build Responsibly
 - Flood Safety Tips
 - Flood Information Assistance
 - Flood Warning and Disaster Preparedness
 - Free Weather Apps
 - Mayor's letter encouraging the purchase of flood insurance
 - Public Information and Flood Assistance
 - Flood Hazard
 - Insure Property for Flood
 - Flood Siren Warning Information

Project 6: Flood Insurance Information at City of Grand Prairie Community Events

(*Project 7 in PPI*) – Several annual projects

- Stormwater Staff and volunteers will set up a booth at various Community Events throughout Grand Prairie such as Main Street Fest, Farmers Market, Crawfish Boil, Asian Times Square Festivals, Hatch Chile Fest, National Night Out Kick Off Party, and Epic Central Events.
- Stormwater staff and volunteers will hand out stuffed bags with miscellaneous items such as TADD stickers, FEMA brochures, City brochures, 'Contents Only' Insurance postcards (English and Spanish), emergency supply kit, coloring books, tattoos, pens, pencils, etc. at the event.



Project 7: Flood Insurance Information Brochure Sent to All Residents in SFHA and RL in Both English and Spanish (*Projects 10 and 11 in PPI*) – Annual project

Project 8: Flood Insurance Postcards Mailed to Renters Regarding “Contents Only” Flood Insurance Coverage in English and Spanish (Target Audience) (*Projects 12 in PPI*) – Annual project

Project 9: Flood Insurance Postcard Mailed to Residents below Joe Pool Dam (Target Audience) (*Project 13 in PPI*) The postcard included information in English and Spanish. – Annual project

Project 10: Flood Insurance Postcard Mailed to Kirby Creek Residents (Target Audience) (*Project 14 in PPI*). The postcard included information in English and Spanish. – Annual project

Project 11: Flood Siren Postcards Mailed to Residents near Flood Sirens (Target Audience) (*Project 15 in PPI*) in English and Spanish. – Annual project

- Post cards will be mailed to residents within the three sirens radius. The new Flood Sirens are planned to go active September 2021.

Project 12: Floodgate Postcards Mailed to Residents of near Floodgates at Carrier and SW3rd St. (Target Audience) (*Project 16 in PPI*) in English and Spanish. – Annual project

- Post cards will be mailed to residents within the area of Carrier and SW 3rd Street. The construction of the Floodgate at SW3rd St is expected to be completed in Fall 2021.

Project 13: Provide Mandatory Flood Insurance Requirement Information to Lenders and Insurance Agents. (*Projects 17 in PPI*) – Annual project

- The letters are printed in English and Spanish and mailed on an annual basis. Contact information will be updated prior to the mailing.

Projects 14: Provide Mandatory Flood Insurance Requirement Information and REB brochure to Realtors. (*Action Items 18 in PPI*) – Annual project

- The letters are printed in English and Spanish and mailed on an annual basis. Contact information will be updated prior to the mailing.