

CRS Floodplain Management Plan

Annual Report

CRS Activity 510 FMP

2023

CRS Floodplain Management Plan Annual Report

This report is a summary of the activities outlined in Step 8, of the City's Floodplain Management Plan. The City of Benbrook 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 disasters.

Preventative

The Public Services Department shall continue to evaluate the current National Flood Insurance Program (NFIP) Floodplain Ordinance and higher regulatory standards for development in flood hazard areas as it pertains to floodplain development.

- **Action:** The Public Services Department evaluates proposed project compliance on a project-by-project basis according to current regulations that include higher regulatory standards in high risk or flood-prone areas.
- **Summary of Implementation:** The Public Services Department is a member of the Development Review Committee (DRC). The DRC reviews all proposed developments that require a special use permit, a zoning change, etc. The Public Services Department reviews all engineering plans submitted to the City for floodplain compliance. The Public Services Department also reviews all building permit applications for new buildings within the City.

The Public Services Department oversees the floodplain permitting process. In 2023, seven (7) floodplain development permits were issued. The Federal Emergency Management Agency (FEMA) approved one (1) Letters of Map Revision (LOMR).

No changes have been made to the Design Manual since its last update.

The City updated its Stormwater Management Plan and submitted the updated plan to Texas Commission On Environmental Quality (TCEQ).

FEMA reviewed the City's Community Rating System (CRS) application and the City has improved its rating from a seven (7) to a six (6), which means that flood insurance premiums will include a 20 % discount for properties located within the floodplain and properties outside the floodplain will have a 10 % discount.

- **Budget:** Operating Budget

Property Protection

The City will continue to use outreach projects to educate the public, area businesses and all citizens about flood risk.

The City will continue to comply with CRS program to maintain the existing Class 6 rating.

- **Action:** The Public Services Department works with other City departments to implement CRS outreach programs. The Public Services Department works with other City departments to make drainage system improvements including maintenance, planning, elimination of structural flooding and reduction of stormwater pollutants carried by stormwater into creeks and streams.

- **Summary Implementation:** The Public Services Department works with Building Inspections, Planning, Emergency Services, Economic Development Corporation and Information Technology to implement the City's CRS program.

The Public Services Department reviews building permit applications for new buildings within the City. Those proposed developments that are within the floodplain are required to obtain a floodplain development permit prior to receiving a building permit.

The Public Services Department reviews all Stormwater Pollution Prevention Plans for construction projects as part of the City's Municipal Separate Storm Sewer System program.

In 2023, the City did not purchase any properties located in a floodplain.

City crews continue to maintain and repair the storm drain system.

The following stormwater-related Capital Improvement Projects and their status are as follows:

- CTP study of Stream CF-5. Completed 2020.
 - Storm Drain System Evaluation. Began in 2022 and is ongoing.
 - Westerly Ditch Drainage. Began in 2022 and was completed in 2023.
 - Southside/Dawn Plantation Project. Began in 2022 and was completed in 2023.
 - Dutch Branch Park Low Water Crossing Replacement. Scheduled for 2023. This project was removed from the CIP because the bridge to replace the low water crossing would have created a larger floodplain and backed water onto Benbrook Blvd.
 - Dutch Branch Park Drainage Improvements. Scheduled for 2024.
 - Timberline Drainage. Scheduled for 2024.
 - Cedar Creek Townhome Project. Scheduled for 2024.
 - Projects from the Storm Drain System Evaluation and/or Dutch Branch Park Study. Scheduled for 2025-2026.
 - Plantation West Channel Project. Scheduled for 2027.
- **Budget:** Operating budget, Stormwater Utility fees.

Natural Resource Protection

The City of Benbrook will continue to work to preserve the natural resources in the City.

- **Action:** No other activities are required to support natural resource protection at this time.
- **Summary of Implementation:** There are no natural resource protection projects under construction at this time.
- **Budget:** Staff time.

Emergency Services

Implement on going 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 website. Materials are also available from the following websites: www.fema.gov, www.redcross.org, www.ready.gov and www.knowwhat2do.com.

- **Action:** The City will continue to monitor and update emergency services as needed. Future work will include website refinements and replacing the outdoor warning sirens.
- **Summary of Implementation:**
FEMA approved and City Council adopted the City's updated Hazard Mitigation Action Plan in May 2017. The revised plan has been submitted for review.
- **Budget:** Operating Budget, Stormwater Utility fees.

Structural Projects

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.

- **Action:** Drainage issues have been minimized through additional flood control measures or 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 improve the City's drainage system.
- **Summary of Implementation:**
 - The Design Manual is scheduled to be updated in 2024 to include current iSWM criteria.
 - Staff continues to respond to and investigate drainage and flooding calls.
 - Permits are required prior to any dirt being moved on project sites.
- **Budget:** Operating Budget, Stormwater Utility fees.

Public Information and Flood Information Assistance

The City provides public information on disaster related materials and the Public Services Department provides comprehensive flood information to the public. The Emergency Services Department provides disaster preparedness information to residents. The Public Services Department also guides residents on protecting the City's waterways from household pollutants and contaminated runoff.

- **Action:** The City staff continues to review and revise all public information materials.
- **Summary of Implementation:** The CRS Program describes the public information materials.
- **Budget:** Operating Budget, Stormwater Utility fees.

Action Items and Goals

Action Item 1: Reduce Flood Losses and Increase Policy Count

Using the FEMA mapped Special Flood Hazard Area (SFHA), staff plotted the location of properties with known flood insurance policies. Based on this data, staff determined approximately 49% of the properties (302 out of 617) located in the SFHA have flood insurance. Flood insurance coverage of properties in the SFHA by occupancy can be found in Table 1 and flood zone in Table 2.

Table 1 – Policies by Occupancy

Zoning	Policies in Force	Premium (\$)	Insurance in Force (\$)
Single Family	289	260,365	73,033,700
2-4 Family	2	732	560,000
All Other Res.	5	6,970	685,200
Non-Residential	6	29,114	2,274,000
Total	302	297,181	76,552,900

Table 2 – Insurance Zone

Zoning	Policies in Force	Premium (\$)	Insurance in Force (\$)
AO1-20 & AE Zones	169	241,283	37,264,700
B, C and X Zones			
Standard	21	14,193	4,834,200
Preferred	112	41,705	34,454,000
Total	302	297,181	76,552,900

Note: B, C and X Zones are outside the SFHA.

FEMA provided most recent data: 1/2/2021

Action Item 2: Attend NFIP/CRS Users Group Meetings (City staff)

City participates in the CRS Users Group Meeting held at North Central Texas Council of Governments.

Action Item 3: Establish City Disaster Response Team

The City is updating emergency response plans. The City held a table top exercise on September 29, 2021 that discussed the roles and responsibilities of each department in an emergency. The City is updating Interlocal Agreements with area churches, Fort Worth Independent School District and Benbrook Water Authority to assist the City during emergencies.

Action Item 4: Ensure Flood Insurance Rate Maps (FIRMs) are Updated

On November 13, 2020, FEMA issued new preliminary FIRMS for the City of Benbrook and these maps are scheduled to be approved by FEMA 2024. The City will upload these maps into GIS once they are approved.

Action Item 5: Acquire, Elevate, Relocate Structures in Flood Prone Areas

In 2023, no structures were acquired, elevated or relocated by the City for flood-related reasons. The City last purchased a repetitive loss property in 2006.

Action Item 6: Improve CRS Rating

The City's CRS Program was reviewed by FEMA in 2020 and the CRS score improved from a seven (7) to a six (6). This score provides our residents with a 20% discount on flood insurance for properties located in the floodplain and a 10% discount for properties outside the floodplain.

Action Item 7: Design, Construct and Maintain Drainage Improvement Projects

Capital Improvement Projects are included in the City's annual budget and continue to move forward. The Public Works Department works to relieve drainage issues reported to the City on a complaint-based approach.

Action Item 8: Develop the Flood Risk Product database for the City

Flood Risk Products (FRPs) provide local communities with flood risk information and tools that they can use to increase their resilience to flooding and better protect their citizens. By pairing accurate Federal Emergency Management Agency (FEMA) maps with risk assessment tools, FRPs enables the use of flood risk datasets beyond the traditional regulatory FEMA Flood Insurance Rate Map (FIRM). The FRPs generate datasets that goes beyond the binary in/out FIRMs use for flood insurance purposes. These datasets not only identify the floodplain extents, but also enable the City to effectively quantify and communicate how actual flood risk varies within the identified floodplain to the constituents.

The Flood Risk Products database provide the following information for the 10, 25, 100, and 500-year rain events:

- Flood depth grids to show the actual water depth for each of the rain events
- Water Surface Elevations for each of the rain events
- Percent Annual Chance of flood for a property
- Percent Chance of flood for a property during a 30-year mortgage
- HAZUS Flood Risk Assessment