

Annex T: City of Wylie



contains capability assessment information, a specific vulnerability assessment, and a complete mitigation strategy. The methodology and process for developing this annex are explained throughout the following sections.

1. Introduction

This annex was prepared in 2020 as part of an update to the Collin County Multi-Jurisdictional Hazard Mitigation Action Plan. This plan updates the Wylie hazard mitigation plan submitted to FEMA as part of the 2016 Collin County plan. The City of Wylie participated in the Collin County Hazard Mitigation Planning Team (HMPT) for this update. In addition to the countywide hazards and strategies discussed in the main plan, this annex serves as a complete hazard mitigation planning tool for the City of Wylie. It

2. Plan Development and Adoption Process

In order to apply for federal aid for technical assistance and post-disaster funding, local jurisdictions must comply with Part 201.3 of the Disaster Mitigation Act of 2000 implemented in the Federal Code of Regulations 44 CFR Part 201.6. While the City of Wylie has historically implemented measures to reduce their vulnerability to hazards, passage of DMA 2000 helped Wylie officials to recognize the benefits of a long-term approach to hazard mitigation, which achieves a gradual decrease of impacts associated through the implementation of a Hazard Mitigation Plan. Collin County's Hazard Mitigation Action Plan represents the collective efforts of all participating jurisdictions, the general public, and stakeholders.

Organizing the Planning Effort

A comprehensive county approach was taken in developing the plan. An open public involvement process was established for the public, neighboring communities, regional agencies, businesses, academia, etc. to provide opportunities for everyone to become involved in the planning process and to make their views known. The meetings were advertised with notices in public places, including online. In accordance with Part 201.6(c)(5) of the Disaster Mitigation Act of 2000 (DMA 2000), Collin County developed this Hazard Mitigation Action Plan. This plan identifies hazards and mechanisms to minimize future damages associated with these hazards, which threaten Collin County and its jurisdictions.

Existing Data and Plans

Existing hazard mitigation information and other plans were reviewed during the development of the Hazard Mitigation Action Plan. GIS, statistical and qualitative data was gathered through numerous sources. The table below outlines the sources of data for the plan:

Table 2.1 Plan Source Data

Source	Data
City and County Appraisal Data 2020	Population and demographics
Regional Hazard Assessment Tool	Hazard occurrences
National Center for Environmental Information (NCEI)	Hazard occurrences
Texas Forest Service/Texas Wildfire Risk Assessment Summary Report	Wildfire Threat and Wildland/Urban Interface
National Inventory of Dams	Dam Information

Planning Committee

This Hazard Mitigation Action Plan was developed by the City of Wylie Hazard Mitigation Planning Committee, with support of the North Central Texas Council of Governments and in conjunction with the Collin County HMPT.

The Collin County HMPT was assembled in November 2020 with representatives from participating jurisdiction planning committees, including mayors, police chiefs, fire chiefs, and the general public. Collin County acted as the plan development consultant providing hazard mitigation planning services; the efforts of the Wylie planning committee were led by the City of Wylie Emergency Management Coordinator.

Table 2.2 Hazard Mitigation Committee – Primary Representatives

Representing	Position	Role
City of Wylie	Emergency Management Coordinator	Information Collection
City of Wylie	City Engineer	Floodplain Manager
	Building/Planning	Information Collection
Collin County	Emergency Management Coordinator	General Assistance

Collin County served as the coordinator and lead agency for all jurisdictions by accomplishing the following activities through the planning process:

- Assigned the County's Assistant Emergency Management Coordinator to provide technical assistance and necessary data to the planning committee.
- Scheduled, coordinated, and facilitated community meetings with the assistance of the HMPT and the planning committees.
- Provided any necessary materials, handouts, etc. for public planning meetings.
- Worked with the HMPT and planning committees to collect and analyze data and develop goals and implementation strategies.
- Prepared, based on community input and planning team/committee direction, the first draft of the plan, and provided technical writing assistance for review, editing and formatting.
- Coordinated with the stakeholders within the jurisdictions and the unincorporated areas of Collin County during plan development.

Each of the individual jurisdictions participated in accomplishing similar activities associated with development of the plan as follows:

- Coordinated input from representatives of neighborhood stakeholder groups and provided a representative to the County HMPT.
- Attended regular meetings of the planning team as coordinated by Collin County.
- Assisted Collin County staff with identifying hazards and estimating potential losses from future hazard events.
- Assisted Collin County in developing and prioritizing mitigation actions to address the identified risks.
- Assisted Collin County in coordinating public meetings to develop the plan.
- Identified the community resources available to support the planning effort.

- Worked for the support of neighborhood stakeholders for the recommendations resulting from the planning process.
- Submitted the proposed plan to all appropriate departments for review and comment and worked with Collin County to incorporate the resulting comments into the proposed plan.

External stakeholders involved in reviewing the Collin County Hazard Mitigation Action Plan:

Table 2.3 External Stakeholders

Representing	Position	Role
Lakepointe Hospital	Representative	Review of plan
Wylie ISD	Representative	Review of plan
First Baptist Church Wylie	Representative	Review of plan

Subsequent to the State of Texas and FEMA approval of the plan, each organization also is committed to accomplishing the following activities:

1. Appoint members to a coordinating committee to monitor and work toward plan implementation.
2. Publicize the plan to neighborhood interests and ensure that new community members are aware of the plan and its contents.
3. Monitor progress in achieving the plan's goals through regular maintenance and implementation projects.

Planning Meetings

During the planning process, the HMPT met to obtain relevant information from the participating jurisdictions and to discuss the objectives and progress of the plan. The objectives of these meetings were to gather information and to provide guidance for each jurisdiction throughout the planning stages.

The following meetings were held by Collin County and included all jurisdiction's participation:

- Collin County HazMAP Kickoff Meeting – August 12, 2020
- Collin County Planning Meeting – November 11, 2020
- Collin County Planning Meeting – June 12, 2021
- Collin County HazMAP Public Meeting – 11/2/2021 at 2PM
- Collin County HazMAP Public Meeting – 01/12/2022 a 9AM

Public Involvement

Support from the community is vital for any successful hazard mitigation plan. The HMPT and planning committee provided opportunities, announced through public communication means, for public participation and input throughout the planning process prior to this draft and before approval of the finalized plan. Advertisement and sign in sheets for these meetings are located in Appendix A.

- The first public meeting was held on November 2, 2021 at 2PM, and advertised on the Collin County website along with other jurisdictional websites inviting the public, neighboring communities, local business, academia, agencies, and nonprofits to comment. The meeting was held virtually via WebEX.

- A second public meeting was held on January 12, 2022 at 9AM. Announcements were placed on jurisdictions websites, including Collin County inviting the public, neighboring communities, local business, academia, agencies, and nonprofits to view and comment on the HazMAP prior to plan submission.

There were no comments directly related to the mitigation plan received from citizens, non-profits, businesses, academia, or interested parties; therefore, no feedback was incorporated.

An additional opportunity for the public to comment on the plan will be held prior to formal plan adoption.

This provided all citizens, stakeholders, neighboring communities, agencies, businesses, academia, non-profit organizations, and all interested parties an opportunity to be involved in the planning process and to take part in the decisions making process that affect the future of the communities that they live in.

3. Jurisdictional Hazard Identification and Risk Assessment

The Hazard Mitigation Planning Committee for the City of Wylie identified several natural and man-made hazards that could affect the city. The committee decided to focus on the natural hazards identified in Section 5 of this update. This was done after reviewing the 2016 HazMAP, the State of Texas Hazard Mitigation Plan, as well as other sources such as federal and state agencies. The hazards were ranked using the Priority Risk Index.

Priority Risk Index

A Priority Risk Index (PRI) was developed with the purpose of categorizing potential hazards for Collin County and ranks each hazard as high, moderate, low, or negligible to no risk. The hazard classification generated through the use of the PRI allows for the prioritization of those high hazard risks for mitigation planning purposes, and more specifically, the identification of hazard mitigation opportunities for Collin County jurisdictions to consider as part of their proposed mitigation strategy.

The PRI is used to assist all jurisdictions participating in the Collin County HazMAP in determining which hazards pose the most significant threat based on a variety of factors. The PRI is not scientifically based, but is rather meant to be utilized as an objective and systematic planning tool for classifying and prioritizing hazard risks in Collin County based on standardized criteria. The PRI results in numerical values that allow identified hazards to be ranked against one another. The sum of all four categories equals the final PRI value, as shown below:

PRI Value = (Probability x .30) + (Life Impact x .35) + (Property Impact x .25) + (Spatial Extent x .10)

The higher the PRI value, the greater the hazards risk. These values were obtained by assigning varying degrees of risk to four categories for each hazard: Probability, Life Impact, Property Impact, and Spatial Extent (*Table 3.1*). Each category has been assigned an Index Value (0 to 3) and a Weighing Factor (0 – 100%). These values may be adjusted during future plan updates. In order to evaluate the risk of each hazard, the assigned PRI Value for each category is multiplied by the weighing factor. Then, the PRI for each hazard is calculated by adding the product obtained in each category. According to the weighing scheme applied for Collin County, the highest possible PRI value is 3.0. The PRI calculations are presented in *Table 3.2*. *Table 3.1* breaks down the value of each category.

Table 3.1 Priority Risk Index Value

Assigned Weighing Factor	PRI Category	Degree of Risk		
		Level	Criteria	Index Value
30%	Probability	Unlikely	Less than 1% annual probability	0
		Possible	Between 1 and 10% annual probability	1
		Likely	Between 10 and 100% annual probability	2
		Highly Likely	100% annual probability	3
35%	Life Impact	Minor	Very few injuries, if at all none	0
		Limited	Minor Injuries	1
		Critical	Multiple deaths/injuries	2
		Catastrophic	High number of deaths/injuries	3
25%	Property Impact	Minor	Only minor property damage and minimal disruption of life. Temporary shutdown of critical facilities.	0
		Limited	More than 10% of property in affected area damaged/destroyed. Complete shutdown of critical facilities for more than one day.	1
		Critical	More than 25% of property in affected area damaged/destroyed. Complete shutdown of critical facilities for more than one week.	2
		Catastrophic	More than 50% of property in affected area damaged/destroyed. Complete shutdown of critical facilities for 30 days or more.	3
10%	Spatial Extent	Negligible	Less than 1% of area affected	0
		Small	Between 1 and 10% of area affected	1
		Moderate	Between 10 and 50% of area affected	2
		Large	Between 50 and 100% of area affected	3

Table 3.2 Priority Risk Index for the City of Wylie

Hazard	Category/Degree of Risk				
	Probability Index Value (0 - 3 30%)	Life Impact Index Value (0 - 3 35%)	Property Impact Index Value (0 - 3 25%)	Spatial Extent Index Value (0 - 3 10%)	PRI Value 2021
Dam Failure	1	0	0	0	0.3
Drought	2	0	1	3	1.15
Earthquake	0	1	0	1	0.45
Expansive Soils	2	0	0	1	0.7
Extreme Heat	1	1	0	3	0.95
Flooding	1	1	0	1	0.75
Hail	2	0	1	2	1.05
High Winds	1	0	0	1	0.4
Lightning	2	1	0	0	0.95
Tornado	2	2	2	2	2
Wildfire	1	0	0	0	0.3
Winter Storms	2	0	1	3	1.15

The conclusions drawn from the hazard profiling process for the city of Wylie resulted in the classification of risk for each identified hazard according to four categories: High Risk, Moderate Risk, Low Risk, and Negligible to No Risk (*Table 3.3*). For purposes of these classifications, risk is expressed in relative terms according to the probability of occurrence and estimated impact that a hazard will have on human life and property in the city of Wylie.

Table 3.3 Hazard Rankings City of Wylie

High Risk (PRI 2 - 3)	Tornado
Moderate Risk (PRI 1.01 -1.9)	Hail Winter Storms
Low Risk (PRI 0.50 – 1)	Drought Lightning Expansive Soils Extreme Heat Flooding
Negligible to No Risk (PRI 0 – 0.49)	Earthquake Dam Failure Wildfire High Winds

Changes in Development and Priorities (Requirement §201.6(d)(3))

The City of Wylie was a participating jurisdiction in the 2016 Collin County Hazard Mitigation Action Plan. Since then, Wylie has completed several of their original action items, in an effort to lower vulnerability on populations and property from natural hazards. The following actions, sorted by type of action, have had a direct impact on lowering vulnerability:

- Natural Systems Protection
- Local Rules and Regulations
 - Maintained continued NFIP compliance through continued enforcement and compliance with city ordinance.
 - Expanded early warning sirens and local warning system to notify the public of impending severe weather to reduce the loss of life and mitigate the effects of the hazards.

The City of Wylie is continuously working to increase their outdoor warning system to accommodate expanding areas. The development and implementation of these projects have directly led to lower vulnerability for residents and property located in Wylie. A NexGEN software upgrade has been completed and two new outdoor warning sirens are scheduled for installation by fall of 2021 with more to follow along with siren upgrades.

As of January 1, 2015 the official population was 45,000 and the current population is 56,376. Housing units have increased from approximately 14,971 to 19,113. Enrollment in Wylie IDS rose from 14,426 in 2015 to approximately 18,300 for the 2021 school year.

The City of Wylie has new developments that include Collin College, an apartment complex, Holiday Inn Express, La Quinta, Whataburger, Chik-Fil-A, new subdivisions, expansions of existing subdivisions, various retail and an assisted living facility.

Planned development for the City of Wylie includes Wylie Fire Rescue Station #4, an expansion of the KCS yard, an apartment complex, and various retail.

New priorities are noted and ranked in each new action item, Section 6. Except for actions completed or cancelled, other priorities remain the same as in the previous version of this plan.

Vulnerability Narratives

This annex focuses on specific areas of vulnerability the City of Wylie faces with each hazard. The hazards identified in the main plan are all addressed in this annex, therefore the natural hazards rated negligible to no risk are included, described, and considered for mitigation in this plan.

Dam and Levee Failure The City of Wylie borders along the southern and western area of Lake Lavon including just west of the Lake Lavon Dam. Lake Lavon is owned and managed by the Army Corps of Engineers. In the event of a worst case scenario dam failure the inundation zone does not affect the City of Wylie. This was tested in a joint exercise with the Army Corps of Engineers. The land south of Lake Lavon Dam is the spillway then it leads to the next lake which is Lake Ray Hubbard. Therefore the City of Wylie is not considered to be at risk for dam failure although unincorporated areas served by Wylie Fire Rescue may be, so inundation studies will be considered. Muddy Creek Dam is owned by the City of Wylie and is located west of Country Club Road across from the Municipal Complex. Any breach of this dam would flow southeast towards FM 544 and may have an effect on businesses and some residences depending on capacity. This inundation would possibly have an effect on the neighboring jurisdictions of

Sachse and Rowlett. This would be a low risk as it would not affect a high population but could still cause damage for some businesses/residents.

Drought . Drought has the potential to impact the entire planning area equally; all improved property, emergency facilities, critical facilities, critical infrastructure, and the entire population of Wylie are vulnerable to this hazard. Foundations of all buildings are vulnerable; however, older structures, or those built under less stringent foundation code requirements are most vulnerable. Lake Lavon, Lake Texoma, Lake Tawakoni, Lake Fork and the Lake Chapman-Cooper reservoir system are water sources for the City of Wylie and are vulnerable to drought. In turn, the city's population, wildlife and vegetation are vulnerable. Lower income populations who may not have the resources to buy containerized water in the event of a shortage may be more vulnerable than other populations.

Earthquake All properties and populations have the potential to be vulnerable to earthquakes. Buildings constructed under older building codes, aging underground infrastructure, and roads are most vulnerable to damages from seismic activity.

Expansive Soils All properties have the potential to be vulnerable to expansive soils, especially those constructed under older building codes.

Extreme Heat .Extreme heat generally affects the entire population, but the homeless, very young, elderly, and populations without air conditioning are most vulnerable.

Flooding This hazard was identified as having low risk to the City of Wylie. Areas that are prone to flash flooding are: the S curve on McMillan Rd off of Country Club and Sachse Rd at Creek Crossing on the border of Wylie and Sachse.

Hail .Hail storms are common during the severe weather months within "tornado alley." It is common for roofs of houses and vehicles to suffer damage from the occasional hail storm. All properties and populations have the potential to be vulnerable to hail. Exposed populations, manufactured homes, and older properties are most vulnerable.

High Winds High Winds are common during the severe weather months within "tornado alley". It is common for fences and trees to suffer damage from the occasional high wind storm. All properties and populations have the potential to be vulnerable to high winds, manufactured homes and exposed populations are most vulnerable.

Lightning All properties and populations have the potential to be vulnerable to lightning. Property without lightning protection and exposed populations are most vulnerable.

Tornado The City of Wylie is within "tornado alley", therefore, there is the potential for a tornado to occur. All properties and populations have the potential to be vulnerable to tornadoes, manufactured homes and exposed populations are most vulnerable.

Wildland Fire This hazard was identified as having minimal or low risk to the City of Wylie. According to data by the Texas Forest Service, it is estimated that 38.07% percent of Wylie's population lives within the WUI which is located primarily in the southern part of the city.

Winter Storms .Texas is greatly affected by winter storms because this is not a common occurrence as in some states. Heavy ice and snow can cause loss of power for an extended amount of time as well as transportation issues which impact life safety. Freezing temperatures and blowing winds can also contribute to life safety issues as well as property damage. Vulnerable populations include the homeless, elderly, and those without access to heat. Critical facilities are also at risk.

Identification of Assets and Vulnerability Assessment

An inventory of Wylie's geo-referenced assets was created in order to identify and characterize property and population potentially at risk to the identified hazards. By understanding the type and number of assets that exist and where they are located in relation to known hazard areas, the relative risk and vulnerability for such assets can be assessed. For this assessment, five categories of assets were evaluated using Geographic Information System and statistical analysis. The five categories of vulnerable assets include:

- **Population**: Includes the number of people residing in Collin County jurisdictions as delineated by U.S. Census 2020 block data provided by NCTCOG.
- **Improved property**: Includes all developed properties according to local parcel data from the Collin County Central Appraisal District. The information has been expressed in terms of the total assessed value of improvements that may be exposed to the identified hazards.
- **Emergency facilities**: Includes fire stations, police stations and hospitals, provided by the Regional Hazard Assessment Tool, Collin County Emergency Management Coordinator, and participating jurisdictions.
- **Critical facilities**: Includes schools and historic places provided by Regional Hazard Assessment Tool, Collin County Emergency Management Coordinator, and participating jurisdictions. These are non-emergency facilities, but still provide critical services and functions for vulnerable sectors of the population.
- **Critical infrastructure**: Includes airports, natural gas facilities, wastewater facilities, potable water treatment facilities, wastewater treatment facilities, dams, and bridges. Data for all critical facilities was obtained from Regional Hazard Assessment Tool, Collin County Emergency Management Coordinator, and participating jurisdictions.

The following tables provide a breakdown by municipal jurisdiction of the geo-referenced assets that were used for the vulnerability assessment.

Population

According to the US Census Bureau, the total population of the City of Wylie in 2020 was 53,067 people, with 19,113 households. The count breakdown by municipal jurisdiction is provided in *Table 3.4*.

Table 3.4 Collin County Population Counts

Jurisdiction	Population			Households		
	Population	% of County Total	Population Density (Sq. Mile)	Household	% of County Total	Household Density (Sq. Mile)
Wylie	53,067	4.44%	1340.36	17,084	4.44%	471.96

Source: US Census Bureau & Collin County Appraisal District

Table 3.5 summarizes population counts and population change (absolute and percent predictions for Collin County).

Table 3.5 Population Predictions

Jurisdiction	Population 2010 Census	Population 2018 Estimate	Population 2019 Estimate	Absolute Change 2018-2019	Percent (%) Change 2018-2019
Wylie	41,427	49,500	51,730	2,230	4.51%

Source: 2020 NCTCOG Population Estimates

Property

There are an estimated 17,130 parcels in Wylie, with an estimated \$4,065,640,595 in total assessed value of, Table 3.6 lists the total number and percentage of parcels by jurisdiction.

Table 3.6 Parcel Counts and Improvements Value

Jurisdiction	Number of Parcels	% of County Total	Total Assessed Value of Improvements (Buildings)
Wylie	17,130	4.09%	\$4,065,640,595

Source: Collin County Appraisal District

Emergency Facilities

There are 5 identified emergency facilities in the City of Wylie, including 3 fire stations, 1 police station (including communications), and 1 hospital. Table 3.7 presents the distribution of emergency facilities by jurisdiction. Geographic coordinates were used to determine the location of each facility.

Table 3.7 Emergency Facilities

Jurisdiction	Fire Stations	Police Stations	Hospitals
Wylie	3	1	1

Source: County Data and Regional Hazard Assessment Tool

Critical Facilities

There are 29 critical facilities, which are considered non-emergency in Wylie. The critical facilities include 20 schools and 9 historical property sites (Table 3.8). Geographic coordinates (i.e., latitude and longitude) were used to determine the location of each facility.

Table 3.8 Critical Facilities

Jurisdiction	Schools	Historical Property
Wylie	20	9

Source: Local jurisdictions

Critical Infrastructure

There are two identified critical infrastructure facilities in Wylie, including zero airports, zero natural gas facilities, one water treatment facilities, one wastewater treatment facilities, two dams, and zero railway/highway bridges (*Table 3.9*).

Table 3.9 Critical Infrastructure

Jurisdiction	Airports	Natural Gas Facilities	Wastewater Treatment Facilities	Potable Water Treatment Facilities	Dams	Railway/ Highway Bridges
Wylie	0	0	1	1	2	0

Source: Local jurisdictions

Methodology

Based on the type of information available for analysis, Collin County's vulnerability assessment was conducted using two distinct methodologies, a Geographic Information System-based analysis and a statistical risk assessment methodology. Each approach provides estimates for the potential impact of hazards by using a common, systematic framework for evaluation of historical occurrence information provided by National Centers for Environmental Information, the Texas Forest Service, and the FEMA Resilience and Planning Tool. The results of the vulnerability assessment are provided by jurisdiction for each hazard analyzed.

Of the 12 hazards evaluated for Collin County, four were analyzed using a Geographic Information System-based analysis, 5 using a statistical risk assessment methodology, and the remaining 3 using qualitative analysis. Qualitative analysis was used due to lack of information, the inability to define specific areas of risk, and/or inexistence of historical records. Additional information regarding these 3 hazards is unattainable at the present time; studies to address this data deficiency are noted as action items in this update. *Table 3.10* summarizes the methodology used for each hazard.

Table 3.10 Analysis used for Vulnerability Assessment Collin County

Hazard	Geographic Information System-based Analysis	Statistical Analysis	Qualitative Analysis
Dam Failure			X
Drought	X		
Earthquake			X
Expansive Soils			X
Extreme Heat		X	
Flooding	X		
Hail	X		

High Winds		X	
Lightning		X	
Tornado		X	
Wildfire	X		
Winter Storms		X	

Summary of Vulnerability Assessment

A summary of the vulnerability assessment for each hazard using geographic and statistical analysis is presented in the following pages. The detailed assessment is presented in the following sections.

Summary Table 3.11

Drought	
Population	According to National Centers for Environmental Information (NCEI) no recorded injuries or fatalities have been recorded for drought events. There are no personal losses expected from drought events.
Improved Property	According to the National Centers for Environmental Information (NCEI), property losses in the City of Wylie are expected but financially unknown due to lack of accurate reporting; however county-wide property loss is estimated at \$21,208.33 per year. Historical data indicates that crop losses in the City of Wylie are expected mostly during water shortages, financially unknown due to lack of accurate reporting however county-wide crop loss is estimated to be \$58,916.67 per year.
Emergency Facilities	Because of the nature of this hazard, no losses are expected on emergency facilities but foundation issues could occur due to drought events.
Critical Facilities	Because of the nature of this hazard, no losses are expected on critical facilities but foundation issues could occur due to drought events.
Critical Infrastructure	Because of the nature of this hazard, no losses are expected on critical infrastructure but foundation issues and road degradation could occur due to drought events.

Summary Table 3.12

Extreme Heat	
Population	According to National Centers for Environmental Information (NCEI), there were four (4) county-wide fatalities recorded due to extreme heat, none from the City of Wylie. The City of Wylie and its population are vulnerable to this hazard.
Improved Property	According to National Centers for Environmental Information (NCEI), there is no impact of extreme heat to developed areas and the improved property in the City of Wylie is not vulnerable to this hazard.

Emergency Facilities	According to National Centers for Environmental Information (NCEI), there is no impact of extreme heat to buildings and the emergency facilities in the City of Wylie are not vulnerable to this hazard.
Critical Facilities	According to National Centers for Environmental Information (NCEI), there is no impact of extreme heat to buildings, and the critical facilities in the City of Wylie are not vulnerable to this hazard.
Critical Infrastructure	According to National Centers for Environmental Information (NCEI) there is no impact of extreme heat to critical infrastructure, and vulnerability to this hazard is considered minimal in the City of Wylie.

Summary Table 3.13

Flooding	
Population	Flooding produces an expected annualized count of zero (0) fatalities and injuries per year. Approximately 427 residential parcels in the City of Wylie are located within the 100-year floodplain.
Improved Property	There have been five (5) recorded flood events in the City of Wylie. Property losses are expected at \$2,800 per year however these values are underestimated due to lack of accurate reporting. No crop losses are expected or recorded. Approximately \$60,830,722 of the total assessed value is at risk from the 100-year storm event.
Emergency Facilities	Emergency facilities have the potential to be at risk in the 100-year storm event.
Critical Facilities	Critical facilities have the potential to be at risk in the 100-year storm event.
Critical Infrastructure	Critical Infrastructure has the potential to be at risk in the 100-year storm event.

Summary Table 3.14

Hail	
Population	According to the National Centers for Environmental Information (NCEI), no injuries or fatalities have been recorded for hailstorm events. There are no personal losses expected from hailstorm events.
Improved Property	According to the National Centers for Environmental Information (NCEI), property losses in the City of Wylie are expected at \$7,573,171.43 per year however these values are underestimated due to lack of accurate reporting. All improved property is vulnerable to this hazard. Although some crops are susceptible to hail hazards, available historical data for Wylie indicates that there are no expected crop losses from this event.

Emergency Facilities	Because of the unpredictability of the geographical location of hailstorms, all emergency facilities in the City of Wylie are vulnerable to this hazard.
Critical Facilities	Because of the unpredictability of the geographical location of hailstorms, all critical facilities in the City of Wylie are vulnerable to this hazard.
Critical Infrastructure	Because of the unpredictability of the geographical location of hailstorms, all critical infrastructures in the City of Wylie are vulnerable to this hazard.

Summary Table 3.15

High Wind	
Population	According to the National Centers for Environmental Information (NCEI), there are no recorded injuries or fatalities from high wind events. All the population of the City of Wylie are vulnerable to this hazard.
Improved Property	According to the National Centers for Environmental Information (NCEI), property losses in the City of Wylie are expected at \$900 per year however these values are underestimated due to lack of accurate reporting. No crop losses resulted from this hazard in the City of Wylie.
Emergency Facilities	Because of the expected geographical widespread nature of high winds, all emergency facilities in the City of Wylie are vulnerable to this hazard.
Critical Facilities	Because of the expected geographical widespread nature of high winds, all critical facilities in the City of Wylie are vulnerable to this hazard.
Critical Infrastructure	Because of the expected geographical widespread nature of high winds, all critical infrastructures in the City of Wylie are vulnerable to this hazard.

Summary Table 3.16

Lightning	
Population	According to the National Centers for Environmental Information (NCEI), there are no recorded injuries or fatalities from lightning events. All the population of the City of Wylie are vulnerable to this hazard.
Improved Property	According to the National Centers for Environmental Information (NCEI), property losses in the City of Wylie are expected but unknown due to lack of accurate reporting.
Emergency Facilities	Because of the expected geographical widespread nature of lightning, all emergency facilities in the City of Wylie are vulnerable to this hazard.

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Critical Facilities	Because of the expected geographical widespread nature of lightning, all critical facilities in the City of Wylie are vulnerable to this hazard.
Critical Infrastructure	Because of the expected geographical widespread nature of lightning, all critical infrastructures in the City of Wylie are vulnerable to this hazard.

Summary Table 3.17

Tornado	
Population	According to National Centers for Environmental Information (NCEI), there have been no recorded injuries or fatalities from tornado events in the City of Wylie. All the population of the City of Wylie is exposed and vulnerable to this hazard.
Improved Property	According to National Centers for Environmental Information (NCEI), an average loss of \$7,142.86 per year in property losses is expected to result from tornado events. No crop losses are expected from this hazard in the City of Wylie.
Emergency Facilities	Because of the impossibility to predict the geographical area of impact for tornados, all emergency facilities in the City of Wylie are exposed and vulnerable to this hazard.
Critical Facilities	Because of the impossibility to predict the geographical area of impact for tornados, all critical facilities in the City of Wylie are exposed and vulnerable to this hazard.
Critical Infrastructure	Because of the impossibility to predict the geographical area of impact for tornados, all critical infrastructures in the City of Wylie are exposed and vulnerable to this hazard.

Summary Table 3.18

Wildfire	
Population	Based on geographical data, approximately 38.07% of the City of Wylie is vulnerable to wildfires. There have been no recorded injuries or fatalities due to wildfires.
Improved Property	Based on historical data, annual financial losses expected from property loss due to wildfires are unknown due to lack of accurate reporting; therefore, the percentage of the overall property improvement values across the City of Wylie are also unknown.
Emergency Facilities	Based on geographic information there are two fire stations, one police station, and one hospital at risk from wildfire events.
Critical Facilities	Based on geographic information there are 17 schools and 15 historical properties at risk from wildfire events.

Critical Infrastructure	Based on geographic information there are no bridges, no dams, one wastewater treatment facility, and no water treatment facility at risk from wildfire events.
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Summary Table 3.19

Winter Storm	
Population	According to National Centers for Environmental Information (NCEI), there was one (1) county-wide fatality recorded due to winter storms, none from the City of Wylie. All the population of the City of Wylie are exposed and vulnerable to this hazard.
Improved Property	According to the National Centers for Environmental Information (NCEI), property losses in the City of Wylie are expected but unknown due to lack of reporting; however county-wide property loss is estimated at \$116,250 per year. No crop losses are expected from this hazard in the City of Wylie.
Emergency Facilities	Because of the expected geographical widespread nature of winter storms, all emergency facilities in the City of Wylie are exposed and vulnerable to this hazard.
Critical Facilities	Because of the expected geographical widespread nature of winter storms, all critical facilities in the City of Wylie are exposed and vulnerable to this hazard.
Critical Infrastructure	Because of the expected geographical widespread nature of winter storms, all critical infrastructures in the City of Wylie are exposed and vulnerable to this hazard.

4. Capability Assessment

The risk assessment and capabilities assessment serve as the foundation for the development of a meaningful hazard mitigation strategy. During the process of identifying specific mitigation actions to pursue, the City of Wylie considered not only its level of hazard risk but also the existing capabilities to minimize or eliminate that risk.

Table 4.1 Legal and Regulatory Capability Summary

Legal and Regulatory Capabilities															
Jurisdiction	Building Code	Zoning Ordinance	Subdivision Ordinance or regulation	Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances wildfire ordinances, hazard setback requirements)	Growth management ordinances (also called "smart Growth" or anti-sprawl programs)	Site Plan review requirements	General or comprehensive plan	A capital improvements plan	An economic development plan	An emergency response plan	A post-disaster recovery plan	A post-disaster recovery ordinance	Real estate disclosure requirements	Other	% Yes per Jurisdiction
Wylie	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	N	N	71%
Average % Yes Capabilities – 71%															
Y- Yes N- No ?- Don't Know															

Table 4.2 Administrative and Technical Capability Summary

Administrative and Technical Capabilities											
Jurisdiction	Planner(s) or engineer(s) with knowledge of land development and land management	Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Planners or engineer(s) with an understanding of natural and/or human caused hazards	Floodplain manager	Surveyors	Staff with education or expertise to assess the community's vulnerability to hazards	Personnel skilled in GIS	Scientists familiar with the hazards of the community	Emergency manager	Grant writers	% Yes per Jurisdiction
Wylie	Y	Y	Y	Y	N	Y	Y	N	Y	Y	80%
Average % Yes Capabilities – 80%											
Y- Yes N- No ?- Don't Know											

Table 4.3 Fiscal Capability Summary

Fiscal Capabilities											
Jurisdiction	Community Development Block Grants (CDBG)	Capital improvements project funding	Authority to levy taxes for specific purposes	Fees for water, sewer, gas, or electric service	Impact fees for homebuyers or developers for new developments/homes	Incur debt through general obligation bonds	Incur debt through special tax bonds	Incur debt through private activity bonds	Withhold spending in hazard-prone areas	Other	% Yes per Jurisdiction
Wylie	N	Y	N	Y	N	N	N	N		N	20%
Average % Yes Capabilities – 20%											
Y- Yes N- No ?- Don't Know											

To quantify Wylie's legal and regulatory, administrative and technical, and fiscal capabilities, an overall rating system was administered for each category: limited (0-30%), moderate (31-70%), and strong (70-

100%). Questionnaire responses indicated that on average, Wylie has 71.42% of identified legal and regulatory capabilities, 80% of identified administrative and technical capabilities, and 20% of identified fiscal capabilities.

Table 4.4 Administrative Information

Jurisdiction	Chief Administrative Officer	Ability to Implement Capabilities
City of Wylie	City Manager	The city manager, along with Directors (department heads), address the budget; pass ordinances and codes; hire staff; approve plans; and determine the direction of the city overall. As the governing body, the ability to implement and approve mitigation actions, expand mitigation activities and programs, and integrate mitigation into existing policies and programs is a function of this group.

Specific actions that can expand and improve existing capabilities, authorities, plans, policies, and resources for mitigation include: budgeting and passing policies and procedures, adopting and implementing stricter mitigation regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation updates and additions to existing plans as new needs are recognized.

5. Mitigation Strategies

Based on the results of the risk and capability assessments, and reviews of the goals and objectives included in the 2016 HazMAP, the Wylie Hazard Mitigation Planning Committee developed mitigation strategies for the plan update.

Goal 1 Reduce or eliminate loss of life, injuries and property damage resulting from severe weather events.

Objective 1-A Provide adequate warning and communication before, during, and after a hazard event.

Objective 1-B Expand and coordinate early warning systems currently in use.

Objective 1-C Reduce or eliminate loss of life and property damage from tornadoes through the construction and use of safe rooms or shelter areas.

Goal 2 Protect existing and new properties from the effects of all natural hazards.

Objective 2-A Conduct studies to determine hazard and vulnerability threat assessment for all natural hazards.

Objective 2-B Rehabilitate or retrofit identified high hazard critical infrastructure.

Objective 2-C Enact and enforce regulatory measures that enforce hazard mitigation measures.

Objective 2-D Construct enhancements or additions to current and new facilities which mitigate the effects of natural hazards.

Objective 2-E Maintain NFIP compliance, storm water management, and implement drainage projects.

Goal 3 Reduce losses and repetitive damages for chronic hazard events..

Objective 3-A Conduct a hazard/vulnerability assessment of personal properties and structures located in flood zones.

Objective 3-B Develop and implement a buyout program for those personal properties and structures located in high hazard flood zones starting with those that are most vulnerable to life and property loss.

Objective 3-C Develop and execute new programs which identify and reduce threats from natural hazards.

Goal 4 Develop public education campaigns to disseminate information about actions to mitigate potential loss of life, injuries and property damage resulting from natural hazards.

Objective 4-A Educate the public on risks, threats, and vulnerability from all natural hazards.

Objective 4-B Educate the public on actions they can take to prevent or reduce the loss of life or property from all natural hazards.

Objective 4-C Develop and implement a community education campaign to heighten public awareness about chronic flooding and options for insurance coverage to protect their personal properties as well as long term benefits from a buyout program.

6. Action Items

Below is a list of the new and deferred action items identified for the HazMAP Update. Each of the actions in this section were prioritized based on FEMA's STAPLEE criteria, which includes considering the social, technical, administrative, political, legal, economic and environmental factors necessary for the implementation of each action. As part of the STAPLEE analysis economic considerations were weighed for each action. The STAPLEE was used for the 2016 Plan along with the 2021 Update. Priority rankings are classified as indicated in the table below.

Priority	Description
High	Benefits of mitigating risk of death or severe bodily injury outweigh costs to implement actions rated as high priorities.
Medium	Reducing vulnerability to threats and the resulting improvement in quality of life and peace of mind are benefits for actions rated as medium priorities.
Low	Awareness of low risk/low impact hazards offer benefits of time to assess, plan and integrate low priority mitigation actions as time, need, and funding permit.

City of Wylie Action Items: Deferred from 2016 Plan

City of Wylie Action Item	Add outdoor warning sirens to meet the needs of the growing population in newly developed areas and/or subdivisions.
Hazard(s) Addressed	Tornado, Hail, High Winds, Dam Failure, Lightning, Flooding, Wildfire
Goal/Objective	1-A, 1-B
Priority	High
Estimated Cost	\$30,000 per siren
Potential Funding Sources	General Fund
Potential Matching Sources	None
Lead Department	Emergency Management
Implementation Schedule	2-5 years
Effect on Old Buildings	None
Effect on New Buildings	None
Cost Effectiveness	Minimal compared to preservation of life safety
Discussion	Outdoor warning systems will help alert the public to reduce personal and property damage before a disaster strikes.
Status	Two Sirens and software have been added or in the process of being added. Continue to add additional sirens as needed based on population needs.

City of Wylie Action Item	Adopt and implement water conservation regulations
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Hazard(s) Addressed	Drought
Goal/Objective	2-C, 3-C
Priority	High
Estimated Cost	\$7,500 to \$15,000
Potential Funding Sources	General Fund
Potential Matching Sources	None
Lead Department	Emergency Management
Implementation Schedule	2-5 years
Effect on Old Buildings	Will identify need for retrofits, such as low-flow plumbing
Effect on New Buildings	May require new codes for low-flow plumbing and foundation integrity
Cost Effectiveness	Minimal compared to benefit to community
Discussion	This will mitigate drought conditions.
Status	Deferred – will be included in 2021 Plan

City of Wylie Action Item	Develop and implement a comprehensive public education program to educate on the actions to help mitigate the impacts of each identified hazard.
Hazard(s) Addressed	Tornado, Hail, Winter Storms, High Winds, Dam Failure, Lightning, Expansive Soils, Extreme Heat, Earthquake, Flooding, Wildfire, Drought
Goal/Objective	4-A, 4-B, 4-C
Priority	High
Estimated Cost	\$7,500-\$15,000
Potential Funding Sources	General Fund
Potential Matching Sources	None
Lead Department	Emergency Management
Implementation Schedule	2-3 years
Effect on Old Buildings	Depending on mitigation actions taken for structures, can make existing building safer, stronger and less vulnerable to damages through retrofits
Effect on New Buildings	Depending on mitigation actions taken for structures, can make new building safer, stronger and less vulnerable to damages
Cost Effectiveness	Minimal compared to preservation of life safety
Discussion	Public education can help educate the public to reduce personal and property damage during disasters. Program will include information about hazard mitigation.
Status	Receive supplies and materials from the NCTCOG KnowWhat2do Program and provide to residents. Continue – will be included in 2021

City of Wylie Action Item	Develop and implement an extreme temperature program that provides resources and identifies locations for vulnerable residents to go to during periods of extreme temperatures.
Hazard(s) Addressed	Extreme Heat, Winter Storms
Goal/Objective	2-D
Priority	Medium
Estimated Cost	\$10,000-\$15,000
Potential Funding Sources	HMGP, PDM
Potential Matching Sources	Local funds, NPO donations, In-kind
Lead Department	Emergency Management, Planning
Implementation Schedule	1-2 years
Effect on Old Buildings	Could require retrofit to accommodate required space and resources
Effect on New Buildings	May entail enhanced construction materials
Cost Effectiveness	Cost to implement this program is low compared to the benefits of the program.
Discussion	Cooling shelters would allow special populations to reduce their vulnerability to extreme heat, as warming centers would aid residents in extreme cold.
Status	Deferred – will be included in 2021 Plan

City of Wylie Action Item	Hire consultant to complete new inundation studies of all high and moderate hazard dams.
Hazard(s) Addressed	Dam Failure, Flood
Goal/Objective	3-A
Priority	High
Estimated Cost	\$75,000
Potential Funding Sources	HMPG, Watershed Authorities, Dam Sponsors
Potential Matching Sources	Local Sponsors, In-Kind
Lead Department	Planning and Zoning/ NRCS, Emergency Management
Implementation Schedule	1-2 years
Effect on Old Buildings	Results will determine what mitigation actions are needed to protect existing buildings in inundation zones
Effect on New Buildings	Results will determine what mitigation actions are needed for new buildings in inundation zones
Cost Effectiveness	Low
Discussion	Dam Failure data deficiency identified in Chapter 3. Identify all structures and infrastructures that would be impacted by a potential dam failure.

Collin County Hazard Mitigation Action Plan

Status	Deferred – will be included in 2021 Plan
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City of Wylie Action Item	Conduct earthquake assessment study to determine potential for earthquakes to affect public facilities and utilities.
Hazard(s) Addressed	2-A
Goal/Objective	Earthquake
Priority	Low
Estimated Cost	\$20,000
Potential Funding Sources	HMGP
Potential Matching Sources	Local Funds
Lead Department	Public Works, Planning Zoning
Implementation Schedule	1-2 years
Effect on Old Buildings	Results will help identify/define retrofits or additions to reduce vulnerability to earthquakes
Effect on New Buildings	Results will identify/define codes for new construction to reduce vulnerability to earthquakes
Cost Effectiveness	Low
Discussion	Project outputs will guide development of future earthquake mitigation projects.
Status	Deferred – will be included in 2021 Plan

City of Wylie Action Item	Conduct a soil analysis to determine the scope, impact, and extent of expansive soils
Hazard(s) Addressed	Expansive Soils
Goal/Objective	2-A
Priority	Low
Estimated Cost	\$10,000
Potential Funding Sources	Federal grants, state grants
Potential Matching Sources	Local funds
Lead Department	Emergency management, Public works, Planning Zoning
Implementation Schedule	1-2 years
Effect on Old Buildings	Study would identify existing construction most at risk for expansive soil damage.
Effect on New Buildings	Study would be used to identify undeveloped areas at risk for expansive soil damage for real estate disclosure.
Cost Effectiveness	High. This study would lead to targeted mitigation projects to lower vulnerability to expansive soils.

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Discussion	Study would be used to identify scope, impact, and extent of expansive soils throughout jurisdiction.
Status	Deferred – will be included in 2021 Plan

City of Wylie Action Item	Purchase and Distribute NOAA Weather Radios to Vulnerable Residents
Hazard(s) Addressed	Dam Failure, Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Hail, High Winds, Lightning, Tornado, Wildfire, Winter Storms
Goal/Objective	1-A
Priority	High
Estimated Cost	\$75,000
Potential Funding Sources	Grant Funds, HMPG, PDM, Partial payment by receiving party
Potential Matching Sources	Local funds, in-kind, donations, citizen cost-share
Lead Department	Emergency Management
Implementation Schedule	2-5 years
Effect on Old Buildings	Depending on mitigation actions taken for structures, can make existing building safer, stronger and less vulnerable to damages through retrofits
Effect on New Buildings	Depending on mitigation actions taken for structures, can make new building safer, stronger and less vulnerable to damages
Cost Effectiveness	Advanced warning and mitigation information saves lives which outweighs the cost of a radio.
Discussion	Weather Alert Radios are a proven means to alert and warn citizens and provide information about severe weather as well as provide other emergency and hazard information
Status	Deferred – will be included in 2021 Plan

City of Wylie Action Items: New

City of Wylie Action Item	Add outdoor warning sirens to meet the needs of the growing population in newly developed areas and/or subdivisions.
Hazard(s) Addressed	Tornado, Hail, High Winds, Dam Failure, Lightning, Flooding, Wildfire
Goal/Objective	1-A, 1-B
Priority	High
Estimated Cost	\$30,000 per siren
Potential Funding Sources	General Fund
Potential Matching Sources	None
Lead Department	Emergency Management
Implementation Schedule	2-5 years

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Effect on Old Buildings	None
Effect on New Buildings	None
Cost Effectiveness	Minimal compared to preservation of life safety
Discussion	Outdoor warning systems will help alert the public to reduce personal and property damage before a disaster strikes. This action item would be specific to installation/placement of new OWS sirens in the jurisdiction.

City of Wylie Action Item	Adopt and implement water conservation regulations
Hazard(s) Addressed	Drought, Expansive Soils
Goal/Objective	2-C, 3-C
Priority	High
Estimated Cost	\$7,500 to \$15,000
Potential Funding Sources	General Fund
Potential Matching Sources	None
Lead Department	Emergency Management
Implementation Schedule	2-5 years
Effect on Old Buildings	Will identify need for retrofits, such as low-flow plumbing
Effect on New Buildings	May require new codes for low-flow plumbing and foundation integrity
Cost Effectiveness	Minimal compared to benefit to community
Discussion	This will mitigate drought conditions. When water is conserved and not used for landscape during droughts, this would provide water for homeowners to use, through drip irrigation, to keep their foundations at a consistent saturation level, mitigating the impacts of drought and lack of water.

City of Wylie Action Item	Develop and implement a comprehensive public education program to educate on the actions to help mitigate the impacts of each identified hazard.
Hazard(s) Addressed	Tornado, Hail, Winter Storms, High Winds, Dam Failure, Lightning, Expansive Soils, Extreme Heat, Earthquake, Flooding, Wildfire, Drought
Goal/Objective	4-A, 4-B, 4-C
Priority	High
Estimated Cost	\$7,500-\$15,000
Potential Funding Sources	General Fund
Potential Matching Sources	None
Lead Department	Emergency Management

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Implementation Schedule	2-3 years
Effect on Old Buildings	Depending on mitigation actions taken for structures, can make existing building safer, stronger and less vulnerable to damages through retrofits
Effect on New Buildings	Depending on mitigation actions taken for structures, can make new building safer, stronger and less vulnerable to damages
Cost Effectiveness	Minimal compared to preservation of life safety
Discussion	Public education can help educate the public to reduce personal and property damage during disasters. Program will include information about hazard mitigation.

City of Wylie Action Item	Develop and implement an extreme temperature program that provides resources and identifies locations for vulnerable residents to go to during periods of extreme temperatures.
Hazard(s) Addressed	Extreme Heat, Winter Storms
Goal/Objective	2-D
Priority	Medium
Estimated Cost	\$10,000-\$15,000
Potential Funding Sources	HMGP, PDM
Potential Matching Sources	Local funds, NPO donations, In-kind
Lead Department	Emergency Management, Planning
Implementation Schedule	1-2 years
Effect on Old Buildings	Could require retrofit to accommodate required space and resources
Effect on New Buildings	May entail enhanced construction materials
Cost Effectiveness	Cost to implement this program is low compared to the benefits of the program.
Discussion	Cooling shelters would allow special populations to reduce their vulnerability to extreme heat, as warming centers would aid residents in extreme cold.

City of Wylie Action Item	Hire consultant to complete new inundation studies of all high and moderate hazard dams.
Hazard(s) Addressed	Dam Failure, Flood
Goal/Objective	3-A
Priority	High
Estimated Cost	\$75,000
Potential Funding Sources	HMPG, Watershed Authorities, Dam Sponsors
Potential Matching Sources	Local Sponsors, In-Kind

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Lead Department	Planning and Zoning/ NRCS, Emergency Management
Implementation Schedule	1-2 years
Effect on Old Buildings	Results will determine what mitigation actions are needed to protect existing buildings in inundation zones
Effect on New Buildings	Results will determine what mitigation actions are needed for new buildings in inundation zones
Cost Effectiveness	Low
Discussion	Dam Failure data deficiency identified in Chapter 3. Identify all structures and infrastructures that would be impacted by a potential dam failure.

City of Wylie Action Item	Conduct earthquake assessment study to determine potential for earthquakes to affect public facilities and utilities.
Hazard(s) Addressed	2-A
Goal/Objective	Earthquake
Priority	Low
Estimated Cost	\$20,000
Potential Funding Sources	HMGP
Potential Matching Sources	Local Funds
Lead Department	Public Works, Planning Zoning
Implementation Schedule	1-2 years
Effect on Old Buildings	Results will help identify/define retrofits or additions to reduce vulnerability to earthquakes
Effect on New Buildings	Results will identify/define codes for new construction to reduce vulnerability to earthquakes
Cost Effectiveness	Low
Discussion	Project outputs will guide development of future earthquake mitigation projects.

City of Wylie Action Item	Conduct a soil analysis to determine the scope, impact, and extent of expansive soils
Hazard(s) Addressed	Expansive Soils
Goal/Objective	2-A
Priority	Low
Estimated Cost	\$10,000
Potential Funding Sources	Federal grants, state grants
Potential Matching Sources	Local funds

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Lead Department	Emergency management, Public works, Planning Zoning
Implementation Schedule	1-2 years
Effect on Old Buildings	Study would identify existing construction most at risk for expansive soil damage.
Effect on New Buildings	Study would be used to identify undeveloped areas at risk for expansive soil damage for real estate disclosure.
Cost Effectiveness	High. This study would lead to targeted mitigation projects to lower vulnerability to expansive soils.
Discussion	Study would be used to identify scope, impact, and extent of expansive soils throughout jurisdiction.

City of Wylie Action Item	Purchase and Distribute NOAA Weather Radios to Vulnerable Residents
Hazard(s) Addressed	Dam Failure, Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Hail, High Winds, Lightning, Tornado, Wildfire, Winter Storms
Goal/Objective	1-A
Priority	High
Estimated Cost	\$75,000
Potential Funding Sources	Grant Funds, HMPG, PDM, Partial payment by receiving party
Potential Matching Sources	Local funds, in-kind, donations, citizen cost-share
Lead Department	Emergency Management
Implementation Schedule	2-5 years
Effect on Old Buildings	Depending on mitigation actions taken for structures, can make existing building safer, stronger and less vulnerable to damages through retrofits
Effect on New Buildings	Depending on mitigation actions taken for structures, can make new building safer, stronger and less vulnerable to damages
Cost Effectiveness	Advanced warning and mitigation information saves lives which outweighs the cost of a radio.
Discussion	Weather Alert Radios are a proven means to alert and warn citizens and provide information about severe weather as well as provide other emergency and hazard information

National Flood Insurance Program (NFIP) Compliance

Wylie is participating in the National Flood Insurance Program and has identified their respective areas as vulnerable to flooding. This is incorporated into all current and future planning for dealing with repetitive loss vulnerabilities.

Table 6.1 NFIP Compliance

CID	Community Name	County	Initial FHBM Identified	Initial FIRM Identified	Curr Eff Map Date	Reg-Emer Date	Tribal
480759#	WYLIE, CITY OF	ROCKWALL COUNTY/DALLAS COUNTY/COLLIN COUNTY	11/12/1976	6/4/1980	7/7/2014	6/4/1980	No

Source: <http://www.fema.gov/cis/TX.html>

Jurisdiction Activities

In order to maintain eligibility with NFIP, jurisdictions are required to maintain their list of properties that hold a policy with NFIP, along with up-to-date maps of the floodplains in the jurisdictions. Each jurisdiction participating in the Collin County Hazard Mitigation Action Plan completes this basic requirement and has the information on file with the jurisdiction's designated floodplain manager. Using this plan, participating jurisdictions will be able to continue their compliance with NFIP by implementing damage control measures and to take action to minimize the effects of flooding in their respective jurisdictions.

Table 6.2 NIFP Activity

Jurisdiction	Community Floodplain Administrator	NFIP Activity	Activity Description	Enforcement
City of Wylie	City Engineer	Complete and maintain FEMA elevation certificates for pre-FIRM and or post-FIRM buildings	Permits are issued through the Building Dept. The City requires a residential structure to have the lowest floor elevated at least 2 feet above the base flood elevation. Non-residential is the same or be designed so that below the base flood level the structure is watertight with the walls substantially impermeable to the passage of water.	NFIP compliance is implemented and enforced through a process of floodplain identification using FEMA floodplain maps, permit issuance, building requirements, and compliance inspections pending approval. Failure to comply with City's flood ordinance can
		Floodplain development permits	Permits are required for any new construction in a floodplain.	
		Coordinate with FEMA in identifying	The City of Wylie attends meetings held by FEMA	

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		Special Flood Hazard Areas for future FIRM maps	and/or their contractors to better identify areas that are flood prone that are not shown on current Flood Insurance Rate Maps.	shall result in a fine up to \$2,000.
		Take action to minimize the effects of flooding on people, property, and building contents through measures including flood warning, emergency response, and evacuation planning	Maintain road closures to known flood prone areas. Use public outreach via Nixle for flash flood warnings.	
		Future Mitigation Projects	The City of Wylie will continue to monitor for new areas of flooding that have not been previously identified for mitigation.	

7. Plan Maintenance

Monitoring, Evaluating and Updating the Plan

In Compliance with requirement § 201.6(c)(4)(i), Collin County has developed a plan maintenance process which is described in the following paragraphs. Collin County, along with participating jurisdictions are responsible for monitoring implementation of the plan, executing a yearly evaluation of its effectiveness, and updating the plan within a 5-year cycle.

Following formal adoption by Collin County Commissioners Court, and formal adoption of the plan by City Council by each participating jurisdiction, the actions outlined in the Collin County Hazard Mitigation Plan would be implemented by the county and participating jurisdictions as described throughout this document.

The Collin County Emergency Management Coordinator, working in conjunction with the respective jurisdictions, will be responsible for ensuring the mitigation plan is monitored, evaluated, and reviewed on an annual basis. This will be accomplished by calling an annual meeting of the planning committee, whose members will provide assistance and expertise for plan review, evaluating, updating, and monitoring. This meeting will be open to the public and public notices will encourage community participation. During this annual meeting, Wylie will provide information on the implementation status of each action included in the plan. As part of the evaluation, the planning committee will assess whether goals and objectives address current and expected conditions, whether the nature and/or magnitude of the risks have changed, if current resources are appropriate for implementing the plan, whether outcomes have occurred as expected, and if agencies and other partners participated as originally proposed. These activities will take place according to the timetable presented below:

Table 7.1 Plan Maintenance Timeline

Personnel	Activity	Schedule
Emergency Management Coordinator	Monitoring Plan : Track implementation and action items, changes to risk assessment, changes to planning team members, changes to capabilities, plan integrations	Biannually
	Evaluate Plan: Assess effectiveness by evaluating completed actions, implementation processes, responsible personnel and lessons learned.	Annually
	Update Plan	Once every 5 years

At least once every five (5) years, or more frequently, if such a need is determined by the participating jurisdiction, the multi-jurisdictional plan will undergo a major update. During this process, all sections of the plan will be updated with current information, analyses done and new and/or modified mitigation action plans will be developed. The revised plan will be submitted for state and federal review and approval, and presented for approval to the Collin County Commissioner's Court and the respective councils of incorporated cities/towns included in the Collin County plan. Each participating jurisdiction will undertake the same process for reviewing, revising and updating their respective plans and submitting them for approval. The plans will be updated every five years in accordance with federal requirements.

Plan Incorporation into Existing Planning Mechanisms *(In compliance with 201.6(c)(4)(ii))*

2016 Plan Incorporation: The vulnerability and capabilities assessments for each jurisdiction were carefully reviewed and considered when developing the mitigation actions for this plan. The HMPT and planning committees have established a process in which the mitigation strategy, goals, objectives and actions outlined in this plan will be incorporated into existing local planning strategies and mechanisms, as appropriate. Those mechanisms include the following:

Table 7.2 Plan Incorporation Mechanisms

Jurisdictions	Responsible Personnel	Jurisdictional Plans	Integration Schedule	Integration Plan
City of Wylie	City Council	Budget	Annually	Integration of mitigation projects identified in HazMAP, grants, and other fiscal allowances for mitigation actions and related costs
	Emergency Management Coordinator	Emergency Action Plan	Every Five Year	EAP Mitigation annex updates based on HazMAP HIRA; update preparedness, response and recovery actions related to identified hazards
	Designated Floodplain Manager	Floodplain Ordinances	As needed	Enhance mitigation of flood hazards using HazMAP flood data for floodplain management and community development.
	City Council, Director of Planning	Capital Improvement Plan	Annually	Strengthen critical infrastructure and key resources based on HazMAP hazard analysis, incorporate vulnerability data and action items.
	Public Works Director, City Council	Drought Contingency Plan	Assessed annually and updated as needed.	Integrate drought actions such as xeriscaping, water restrictions, and public education
	Planning Director, City Council	Natural Resource Conservation Plan	Assessed annually and updated as needed.	Integrate conservation measures by directing development away from hazard-prone areas identified in HazMAP.

Although it is recognized there are many possible benefits to integrating components of this HazMAP into other planning mechanisms, the Wylie Hazard Mitigation Planning Committee considers this HazMAP, including development and maintenance, to be the primary vehicle to ensure implementation of local hazard mitigation actions.

The process described here is the same as was used since the last planning update.

Continued Public Involvement (In compliance with 201.6(c)(4)(iii))

As stated in requirement § 201.6(c)(4)(iii) The plan maintenance process shall include a discussion on how the community will continue public participation in the plan maintenance process.

To address this requirement, ongoing public participation will be encouraged throughout the entire planning and implementation process. A copy of the plan will be provided on the Collin County website. The planning team and committees will continue meeting on a regular basis to ensure the successful implementation of the plan and to discuss any additional issues regarding the emergency management of Collin County. The annual meetings for monitoring, evaluating, and updating the plan will be open to the public and public notices will encourage community participation.