

2021

Hunt County Hazard Mitigation Action Plan



North Central Texas
Council of Governments

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Executive Summary

We cannot control when or where a tornado or other natural hazard will strike, but we can save lives and reduce property damage by understanding the risks and taking action to address those risks. In the process, we can increase resilience in our community, environment, and economy. Participating jurisdictions in the Hunt County Hazard Mitigation Action Plan (HazMAP) are dedicated to the protection of local citizens and their property, and to the improvement of the quality of life for all residents.

Mitigation has been defined as “sustained action to reduce or eliminate long-term risk to human life and property from natural, human-caused, and technological hazards.”¹ It is fundamentally a loss-prevention function characterized by planned, long-term alteration of the built environment to ensure resilience against natural and human-caused hazards. This loss-prevention function has been illustrated by the Multi-Hazard Mitigation Council study of the Federal Emergency Management Agency (FEMA) mitigation projects, which shows that for every dollar invested in mitigation, six dollars of disaster losses were avoided.²

Mitigation should form the foundation of every emergency management agency’s plans and procedures. Emergency management agencies should adopt mitigation practices to reduce, minimize, or eliminate hazards in their community. The Hunt County Hazard Mitigation Action Plan identifies the hazards faced by participating jurisdictions, vulnerabilities to these hazards, and mitigation strategies for the future. The plan fulfills the requirements of the Federal Disaster Mitigation Act as administered by the Texas Division of Emergency Management (TDEM) and the Federal Emergency Management Agency (FEMA).

This plan is not legally binding but instead is a tool for the jurisdiction to use to become more resilient to natural hazards. Mitigation actions will be implemented as capabilities and funding allow.

¹ State of Texas Mitigation Handbook, page 1-1.

² Natural Hazard Mitigation Saves: 2017 Interim Report, page 1.

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Acronyms

EMC- Emergency Management Coordinator

EOC- Emergency Operations Center

FEMA- Federal Emergency Management Agency

HazMAP- Hazard Mitigation Action Plan

HMPT- Hazard Mitigation Planning Team

LPT- Local Planning Team

N/A- Not Applicable

NCEI- National Centers for Environmental Information

NCTCOG- North Central Texas Council of Governments

NFIP- National Flood Insurance Program

NFPA- National Fire Protection Association

NWS- National Weather Service

OWS- Outdoor Warning Siren

RLP- Repetitive Loss Properties

SRLP- Severe Repetitive Loss Properties

TDEM- Texas Division of Emergency Management

TFS- Texas A&M Forest Service

TPW- Texas Parks & Wildlife Department

TxDOT- Texas Department of Transportation

UTA- University of Texas at Arlington

WUI- Wildland-Urban Interface

Contents

Executive Summary.....	1
Acronyms	3
Chapter 1: Introduction	9
1.1 Overview	9
1.2 Authority	9
1.3 Scope.....	10
1.4 Purpose	12
1.5 Mitigation Goals.....	12
1.6 Plan Organization.....	12
1.7 Hunt County Hazard Mitigation Strategy Maintenance Process	13
1.8 Hunt County Hazard Mitigation Action Plan Adoption	13
Chapter 2: Planning Process	15
2.1 Collaborative Process.....	15
2.1.1 Points of Contacts	16
2.1.2 Stakeholders	16
2.1.3 Public Involvement.....	17
2.2 Existing Data and Plans	17
2.3 Timeframe	18
2.4 Planning Meetings	19
2.5 Plan Implementation	19
2.6 Multijurisdictional Strategy and Considerations.....	20
2.7 Plan Evaluation.....	20
2.8 Plan Update.....	21
2.9 Plan Maintenance	21
2.10 Incorporation into Existing Planning Mechanisms.....	22
Chapter 3: Hazard Identification and Risk Assessment	25
3.1 Hazard Overview	25
3.2 Major Disaster Declarations since the 2015 HazMAP	26
3.3 Natural Hazard Profiles	27
3.3.1 Drought	27

3.3.2 Earthquake	28
3.3.3 Expansive Soils	30
3.3.4 Extreme Heat	31
3.3.5 Flooding.....	34
3.3.6 Thunderstorms.....	36
3.3.7 Tornadoes	40
3.3.8 Wildfire.....	42
3.3.9 Winter Storms	46
3.4 Vulnerabilities and Changes in Development since 2015 HazMAP	47
3.4.1 Critical Facilities and Infrastructure	48
3.4.2 Historic Buildings and Districts.....	56
3.4.3 Bodies of Water	56
3.4.4 Natural Environment and Federally Protected Species	57
3.4.5 Factors that Increase Vulnerability	59
3.4.6 Factors that Decrease Vulnerability.....	71
3.4.7 Greatest Vulnerabilities	78
3.5 Historical Events.....	79
3.6 Hazard Summary.....	90
3.7 Hazard Ranking	106
Chapter 4: Mitigation Strategy	109
4.1 Mitigation Goals.....	109
4.2 Mitigation Strategy	110
4.3 Funding Priorities	110
4.4 Status of Previous Mitigation Action Items	110
4.5 New Mitigation Action Items	116
City of Caddo Mills Mitigation Action Items	116
City of Commerce Mitigation Action Items.....	119
City of Greenville Mitigation Action Items.....	123
City of Lone Oak Mitigation Action Items	130
City of Quinlan Mitigation Action Items	133
Quinlan Independent School District Mitigation Action Items	135
City of West Tawakoni Mitigation Action Items	141

City of Wolfe City Mitigation Action Items	144
Hunt County Unincorporated Mitigation Action Items	147
4.6 Incorporation into Existing Planning Mechanisms	149
Chapter 5: Conclusion	153
Appendix A: Maps & Tables	155
Hunt County Flood Hazard Map	155
Hunt County Fire Intensity Scale Map	156
City of Caddo Mills	157
City of Commerce	159
City of Greenville.....	164
City of Lone Oak	175
City of Quinlan	179
Quinlan Independent School District (QISD).....	181
City of West Tawakoni	182
City of Wolfe City	184
Hunt County Unincorporated	186
Appendix B: Capabilities Assessment	189
City of Caddo Mills	189
City of Commerce	200
City of Greenville.....	212
City of Lone Oak	224
City of Quinlan	235
Quinlan ISD.....	247
City of West Tawakoni	259
City of Wolfe City	271
Hunt County Unincorporated	283
Appendix C: NCTCOG Programs.....	295
Appendix D: Public Meeting Documents	297
City of Caddo Mills	297
City of Commerce	298
City of Greenville.....	299
City of Lone Oak	300

City of Quinlan	301
Quinlan ISD.....	302
City of West Tawakoni	303
City of Wolfe City	304
Hunt County Unincorporated	305
Appendix E: Local Planning Teams.....	307

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Chapter 1: Introduction

1.1 Overview

The Hunt County Hazard Mitigation Action Plan (HazMAP) as written fulfills the requirements of the Disaster Mitigation Act of 2000 (DMA 2000), which is administered by the Federal Emergency Management Agency (FEMA). The Disaster Mitigation Act provides federal assistance to state and local emergency management entities to mitigate the effects of disasters. The HazMAP also encourages cooperation among various organizations across political subdivisions.

This HazMAP is an update of the 2015 FEMA-approved HazMAP. The title was changed from the Local Mitigation Action Plan to Hazard Mitigation Action Plan to clearly specify the intent of the document. With each update, new challenges are identified, new strategies proposed, and when incorporated, the updated plan grows in complexity, but not necessarily in utility.

This HazMAP is the result of two years of study, data collection, analysis, and community feedback. Representatives and citizens from participating jurisdictions attended public meetings to discuss the hazards their communities face and the vulnerabilities those hazards present.

All participants involved in this plan understand the benefits of developing and implementing mitigation plans and strategies. Elected officials, public safety organizations, planners, and many others have worked together to develop and implement this HazMAP, displaying that they have the vision to implement mitigation practices and therefore reduce the loss of life and property in their communities.

Information was collected up to 2018.

1.2 Authority

The [Robert T. Stafford Disaster Relief and Emergency Assistance Act](#) (Stafford Act), as amended by the Disaster Mitigation Act of 2000, provides the legal basis for state, tribal, and local governments to undertake risk-based approaches to reducing natural hazard risks through mitigation planning. Specifically, the Stafford Act requires state, tribal, and local governments to develop and adopt FEMA-approved hazard mitigation plans as a condition for receiving certain types of non-emergency disaster assistance.

The Stafford Act authorizes the following grant programs:

- [Hazard Mitigation Grant Program](#) (HMGP), which helps communities implement hazard mitigation measures following a Presidential major disaster declaration. This program also funds development and update of hazard mitigation plans.
- [Pre-Disaster Mitigation Grant Program](#) (PDM), which awards planning and project grants to assist states, territories, federally-recognized tribes, and local communities in implementing sustained pre-disaster natural hazard mitigation programs. Such efforts may include development or update of hazard mitigation plans.
- [Public Assistance Grant Program](#) (PA), which provides assistance to state, tribal, and local governments, and certain types of private nonprofit organizations so that communities can quickly respond to and recover from major disasters or emergencies declared by the President.

- [Fire Management Assistance Grant Program](#) (FMAG), which provides assistance to state, tribal, and local governments for the mitigation, management, and control of fires on publicly or privately-owned forests or grasslands that threaten such destruction as would constitute a major disaster.

Title 44, Chapter 1, Part 201 ([44 CFR Part 201](#)) of the Code of Federal Regulations (CFR) contains requirements and procedures to implement the hazard mitigation planning provisions of the Stafford Act.

The purpose of the Stafford Act, as amended by the Disaster Mitigation Act of 2000, is “to reduce the loss of life and property, human suffering, economic disruption, and disaster assistance costs resulting from natural disasters.” Chapter 322 of the act specifically addresses mitigation planning and requires state and local governments to prepare multi-hazard mitigation plans as a precondition for receiving FEMA mitigation grants.

This Hunt County Hazard Mitigation Action Plan was developed by the Hunt County Hazard Mitigation Planning Team (HMPT) under the direction and guidance of the North Central Texas Council of Governments (NCTCOG) Emergency Preparedness Department. The plan represents collective efforts of citizens, elected and appointed government officials, business leaders, non-profit organizations, and other stakeholders. This plan, and updating the plan, and timely future updates of this plan, will allow Hunt County and participating jurisdictions to comply with the Disaster Mitigation Act of 2000 and its implementation regulations, 44 CFR Part 201.6, thus resulting in eligibility to apply for federal aid for technical assistance and post-disaster hazard mitigation project funding. The update will also prioritize potential risks and vulnerabilities in an effort to minimize the effects of disasters in the participating communities.

1.3 Scope

The scope of the Hunt County HazMAP encompasses all participating entities in Hunt County. This plan identifies natural and, for some jurisdictions, technological hazards that could threaten life and property in the communities. Assessing technological hazards is not a requirement for this hazard mitigation action plan but select jurisdictions have included these hazards in this plan. The scope of this plan includes both short and long-term mitigation strategies, implementation, strategies, and possible sources of project funding to mitigate identified hazards.

The planning area for this plan is for Hunt County, Texas (marked in red on the Texas map) and includes the following jurisdictions:

- City of Caddo Mills*
- City of Commerce
- City of Greenville* (Had individual plan)
- City of Lone Oak
- City of Quinlan
- Quinlan Independent School District (ISD)*
- City of West Tawakoni
- City of Wolfe City
- Hunt County Unincorporated



**Jurisdictions that did not participate in the 2015 Hunt County HazMAP.*



1.4 Purpose

This HazMAP is intended to enhance and complement federal and state recommendations for the mitigation of natural and technological hazards in the following ways:

- Substantially reduce the risk of loss of life, injuries, and hardship from the destruction of natural and technological disasters.
- Improve public awareness of the need for individual preparedness and building safer, more disaster resilient communities.
- Develop strategies for long-term community sustainability during community disasters.
- Develop governmental and business continuity plans that will continue essential private sector and governmental operations during disasters.

Hunt County is susceptible to a number of different natural hazards that have potential to cause property loss, loss of life, economic hardship, and threats to public health and safety. Occurrence of natural disasters cannot be prevented; however, their impact on people and property can be lessened through hazard mitigation measures.

Mitigation planning is imperative to lessen the impact of disasters in Hunt County. This plan is an excellent method by which to organize Hunt County's mitigation strategies. The implementation of the plan and its components is vital to preparing a community that is resilient to the effects of a disaster. The implementation of this HazMAP can reduce loss of life and property and allow the participating communities to operate with minimal disruption of vital services to citizens. This HazMAP provides a risk assessment of the hazards Hunt County is exposed to and puts forth several mitigation goals and objectives that are based on that risk assessment.

1.5 Mitigation Goals

The goals of the participants' mitigation strategy are to protect life and reduce bodily harm from natural hazards, and to lessen the impacts of natural hazards on property and the community through hazard mitigation. These goals are the basis of this plan and summarize what the Hunt County Hazard Mitigation Planning Team will accomplish by implementing this plan.

1.6 Plan Organization

This Hunt County HazMAP is organized into five chapters which satisfy the mitigation requirements in 44 CFR Part 201.6, with four appendices providing the required supporting documentation.

Chapter 1: Introduction

Describes the purpose of the Hunt County Hazard Mitigation Action Plan and introduces the mitigation planning process.

Chapter 2: Planning Process

Describes the planning process and organization for each participating jurisdiction, satisfying requirements 201.6(c)(1), 201.6(b)(2), 201.6(b)(1), 201.6(b)(3), 201.6(c)(4)(i), 201.6(c)(4)(ii), and 201.6(c)(4)(iii).

Chapter 3: Hazard Identification and Risk Assessment

Describes the hazards identified, location of hazards, previous events, and jurisdictional profiles, satisfying requirements 201.6(c)(2)(i) and 201.6(c)(2)(ii).

Chapter 4: Mitigation Strategy

Reflects on the mitigation actions previously identified and examines the ability of Hunt County and participating jurisdictions to implement and manage a comprehensive mitigation strategy, satisfying requirements 201.6(c)(1), 201.6(c)(3)(i), 201.6(c)(3)(ii), 201.6(c)(3)(iii), 201.6(c)(3)(iv), 201.6(c)(4)(ii), and 201.6(b)(3).

Chapter 5: Conclusion

Appendix A: Maps & Tables

Appendix B: Capabilities Assessment

Appendix C: NCTCOG Programs

Appendix D: Public Documents

Appendix E: Local Planning Teams

1.7 Hunt County Hazard Mitigation Strategy Maintenance Process

The plan in its entirety will be monitored and evaluated. The Hunt County Hazard Mitigation Planning Team, consisting of a representative from each participating jurisdiction, will continue to collaborate as a planning group in coordination with Hunt County Office of Emergency Management. Primary contact will be through emails and conference calls, with strategy meetings to occur at least annually. The points of contact for the county and jurisdictions will jointly lead the plan maintenance and update process by:

- Assisting jurisdictional Local Planning Teams in updating their individual contributions to the county Hazard Mitigation Action Plan.
- Assisting interested Local Planning Teams that would like to begin their mitigation planning process.
- Facilitating Hunt County HazMAP meetings and disseminating information.
- Collaborating on data collections and record keeping.
- Requesting updates and status reports on planning mechanisms.
- Requesting updates and status reports on mitigation action projects.
- Assisting jurisdictions with mitigation grants.
- Assisting jurisdictions with implementing mitigation goals and action projects.
- Providing mitigation training opportunities.
- Maintaining documentation of local adoption resolutions for the Hunt County Hazard Mitigation Action Plan.

1.8 Hunt County Hazard Mitigation Action Plan Adoption

Once the Hunt County Hazard Mitigation Action Plan has received FEMA “Approved Pending Local Adoption” each participating jurisdiction will take the Hunt County HazMAP to their Commissioners Court or city councils for final public comment and local adoption. A copy of the resolution will be inserted into the Hunt County HazMAP and held on file at the North Central Texas Council of Governments.

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Chapter 2: Planning Process

Requirement	
§201.6(b)	An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:
§201.6(b)(1)	An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
§201.6(b)(2)	An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and
§201.6(b)(3)	Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.
§201.6(c)(1)	[The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.
§201.6(c)(4)(i)	[The plan maintenance process shall include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle
§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.

2.1 Collaborative Process

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 and city websites and social media pages.

Each participating jurisdiction gathered their information using a Local Planning Team (LTP), comprised of local staff that could contribute to development of this mitigation plan. The leaders of each of these LPT's comprised the Hunt County Hazard Mitigation Planning Team (HMPT) and other relevant agencies. The HMPT met regularly with the North Central Texas Council of Governments in order to submit individual assessments and data into one multi-jurisdictional mitigation plan.

Stakeholders were invited to participate, via email, by participating jurisdictions.

The North Central Texas Council of Governments was responsible for plan facilitation and coordination with Hunt County HMPT members and stakeholders throughout the process.

2.1.1 Points of Contacts

The following are members of the Hunt County Hazard Mitigation Planning Team (HMPT). These HMPT members were also the point(s) of contact for their respective jurisdiction during this plan update.

Hunt County HMPT Members

Jurisdiction	Job Title	Role in the HMPT
City of Caddo Mills	City Administrator	Jurisdictional information and LPT Lead
City of Commerce	City Secretary	Jurisdictional information and LPT Lead
City of Greenville	Fire Chief	Jurisdictional information and LPT Lead
City of Lone Oak	City Secretary	Jurisdictional information and LPT Lead
City of Quinlan	City Administrator	Jurisdictional information and LPT Lead
City of West Tawakoni	City Administrator	Jurisdictional information and LPT Lead
City of Wolfe City	City Secretary	Jurisdictional information and LPT Lead
Hunt County Unincorporated	Emergency Management Coordinator	Jurisdictional information and LPT Lead
Quinlan Independent School District	Superintendent	Jurisdictional information and LPT Lead

Each HMPT member led a Local Planning Team (LPT) in their respective jurisdictions. The LPT members are listed in Appendix E.

2.1.2 Stakeholders

Stakeholders were invited to participate in the planning process, via email, and included local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, and neighboring communities.

Stakeholders

Organization Represented	Position
Collin County	Emergency Management Coordinator
Kaufman County	Emergency Management Coordinator
Rockwall County	Emergency Management Coordinator
U.S. Army Corps of Engineers	Director – Civil Works
Dams in Participating Jurisdictions	Owners
Independent School Districts of Participating Jurisdictions	Superintendents

Organization Represented	Position
Texas Department of Transportation	Emergency Operations
Utility Providers	Emergency Operations
Local Emergency Planning Committee	Emergency Management Coordinator
Texas Division of Emergency Management	District Coordinator, Field Response
Texas Division of Emergency Management	Hazard Mitigation Planner
State Fire Marshal's Office	District 6, Inspector
National Weather Service – Fort Worth	Warning & Coordination Meteorologist
NCTCOG's Emergency Preparedness Planning Council	Chair
NCTCOG's Regional Emergency Preparedness Advisory Council	Chair
Local City Councils	Local elected officials
Trinity River Authority	Project Manager

2.1.3 Public Involvement

NCTCOG hosted a public meeting on behalf of jurisdictions on August 21, 2019 at the Hunt County Commissioners Courtroom. The jurisdictions who used this opportunity to reach the public were in attendance and advertised the meeting within their jurisdiction.

The supporting documentation, advertisements, and details of this meeting and other meetings or outreach strategies are documented within Appendix D of this HazMAP. There were no public comments made during the meeting.

Public participation will remain an active component of this plan, even after adoption, to ensure citizens understand what the community is doing on their behalf, and to provide a chance for input on community vulnerabilities and mitigation activities that will inform the plan's content. Public involvement is also an opportunity to educate the public about hazards and risks in the community, types of activities to mitigate those risks, and how these activities impact them. Involvement will be sought in a multitude of ways, including but not limited to periodic presentations on the plan's progress to elected officials, schools, or other community groups; annual questionnaires or surveys; public meetings; and postings on social media and interactive websites.

2.2 Existing Data and Plans

Existing hazard mitigation information and other relevant Hazard Mitigation Action Plans were reviewed during the development of this plan. Data was gathered through numerous sources, including Geographic Information Systems (GIS). The intent of reviewing existing material was to identify existing data and information, shared objectives, and past and ongoing activities that can help inform the mitigation plan. It also helps identify the existing capabilities and planning mechanisms to implement the mitigation strategy. The table below outlines the sources used to collect data for the plan:

Data Source	Data Incorporation	Purpose
County appraisal data, census data, city land use data	Population and demographics	Population counts, parcel data, and land use data
National Centers for Environmental Information (NCEI)	Hazard occurrences	Previous event occurrences and mapping for hazards
Texas Forest Service/Texas Wildfire Risk Assessment Summary Report	Wildfire threat and urban interface	Mapping and wildfire vulnerability
U.S. Army Corps of Engineers National Dam Inventory	Dam information	Dam list
Federal Emergency Management Agency (FEMA) Digital Flood Insurance Rate Map (DFIRM) Flood Zones, National Flood Insurance Program (NFIP) studies	Flood zone maps and NFIP information	GIS mapping of flood zones and NFIP data
October 2017 NFIP Flood Insurance Manual Change Package	NFIP Information	Repetitive Loss Properties and Community Rating System (CRS) ratings
State of Texas Hazard Mitigation Plan, 2013 and 2018 editions	Hazards and mitigation strategy	Support the goals of the state
2015 Hunt County HazMAP	All Chapters	This is an update of that plan
Hazard Mitigation: Integrating Best Practices into Planning	Planning process	Use proven techniques in developing the HazMAP
Environmental Protection Agency (EPA) Superfund National Priority List	Protected sites	Risk assessment- identify critical areas
National Register of Historic Places	Historic districts	Risk assessment
Texas Parks & Wildlife List of Rare Species	Endangered or protected species	Risk assessment
Texas Water Development Board	Lake information	Vulnerabilities
U.S. Department of Agriculture	Soil type	Expansive Soils description

2.3 Timeframe

The planning process for the update of the Hunt County Hazard Mitigation Action Plan was approximately two years. The table below is the timeline followed.

Activity	Time Period
Kickoff meeting	November, 2018
Created planning teams	November-December, 2018
Capabilities assessment	January-March 2019

Activity	Time Period
Hazard identification & risk assessment	January-March 2019
Public outreach	July-August 2019
Mitigation strategy (goals & action items)	July-August 2019
Review HazMAP draft	November-December, 2019
Update plan as needed	January, 2020
Final draft review	January, 2020
Send HazMAP to TDEM/make revisions as needed	March, 2020
Send to FEMA/ make revisions as needed	To be determined
Adoption & signatures	Once “Approved Pending Adoption” designated received.

Activities were either led or monitored by the North Central Texas Council of Governments (NCTCOG) and public outreach strategies were conducted by the participating jurisdictions. The details of these activities are provided in the individual annexes of the jurisdictions.

2.4 Planning Meetings

During the planning process, the Hazard Mitigation Planning Team met to discuss relevant information from the jurisdiction and to review objectives and progress of the plan. The goals of these meetings were to gather information and to provide guidance for the jurisdictions throughout the planning stages.

The following meetings were hosted by the North Central Texas Council of Governments for the HazMAP participants and do not represent all the meetings that were conducted throughout the process by the Local Planning Teams.

Date	Meeting
November 5, 2018	HazMAP Kickoff Meeting
January 30, 2019	Hazard Identification, Risk Assessment, and Capabilities Assessment Meeting
February 7, 2019	Hazard Identification, Risk Assessment, and Capabilities Assessment Meeting
August 21, 2019	Public Meeting and Mitigation Workshop

2.5 Plan Implementation

The Hunt County Hazard Mitigation Action Planning process was overseen by the North Central Texas Council of Governments (NCTCOG). The plan was submitted to the Texas Division of Emergency Management (TDEM) and the Federal Emergency Management Agency (FEMA) for approval. It is expected that all participating jurisdictions will formally adopt the plan by resolution once the “Approved Pending Adoption” designation is received by FEMA, in accordance with the Disaster Mitigation Act of 2000.

Each jurisdiction participating in this plan is responsible for implementing specific mitigation actions as prescribed in the mitigation strategies. In each mitigation strategy, every proposed action is assigned to a specific local department or agency in order to assign responsibility and accountability and increase the likelihood of subsequent implementation. This approach enables individual jurisdictions to update their unique mitigation strategy as needed without altering the broader focus of the county-wide plan. The separate adoption of locally-specific actions also ensures that each jurisdiction is not held responsible for monitoring and implementing the actions of other jurisdictions involved in the planning process.

The Hunt County Emergency Management Coordinator or their designee is the lead position for plan implementation and will work with the Hunt County Hazard Mitigation Planning Team (HMPT) to ensure mitigation actions are implemented into jurisdictional planning procedures. Each participating jurisdiction will implement the plan and their individual mitigation actions in the timeframe appropriate for their planning processes. As necessary, the HMPT will seek outside funding sources to implement mitigation projects in both the pre-disaster and post-disaster environments. When applicable, potential funding sources have been identified for proposed actions listed in the mitigation strategies.

2.6 Multijurisdictional Strategy and Considerations

The Hunt County Office of Emergency Management will lead activities for mitigation planning county-wide. Although The Hunt County Office of Emergency Management will be responsible for maintaining this plan, including the documentation of in-progress and completed action items, each participating jurisdiction is responsible for reporting hazards, their costs, and a status report on mitigation actions to the North Central Texas Council of Governments (NCTCOG) for recording in the plan.

Each jurisdiction is responsible for completing mitigation activities by providing the capabilities and authorities needed to carry out activities. Participating jurisdictions completed an analysis of their current legal, staffing, and fiscal capabilities as they relate to hazard mitigation planning. Jurisdictional capabilities and authorities identified to ensure successful mitigation planning are located within the jurisdictional annexes.

2.7 Plan Evaluation

All members of the Hunt County Hazard Mitigation Planning Team (HMPT) will be responsible for ensuring that the Hunt County Hazard Mitigation Action Plan (HazMAP) is evaluated as required. Specifically, the Hunt County Emergency Management Coordinator, or their designee, will convene the HMPT and ensure an evaluation is conducted in a thorough manner. This evaluation will include analysis of current mitigation projects, evaluation of success, reevaluation of future mitigation needs, and prioritization based upon changes in needs and/or capabilities of Hunt County.

The HMPT will reconvene annually to ensure that projects are on track and to reevaluate the mitigation goals, objectives, and action items. The mitigation plan shall be viewed as an evolving, dynamic document.

2.8 Plan Update

The Disaster Mitigation Act of 2000 requires that the Hunt County Hazard Mitigation Action Plan be updated at least once every five years. During this process, all chapters of the plan will be updated with current information, and analyses and new and/or modified mitigation actions will be developed. The revised plan will be submitted for state and federal review and approval and presented for approval to the Hunt County Commissioners Court and the respective councils of incorporated cities included in this HazMAP. Likewise, each participating jurisdiction will undergo the same process for reviewing, revising and updating their respective plans and submitting them for approval by state, federal, and the local jurisdiction's governing body. The plan will be updated every five years in accordance with federal requirements. Hunt County's Emergency Management Coordinator or their designee will be responsible for ensuring that this requirement is met. Hunt County and the Hazard Mitigation Planning Team will review the HazMAP annually for needed updates. The HMPT will be involved in this process to ensure all jurisdictions provide input into the planning process. The public will be invited to participate in this process through public hearings.

2.9 Plan Maintenance

It is the intention of all documented plan participants to formally adopt the Hunt County Hazard Mitigation Action Plan after each maintenance revision. Once all participants adopt the changes, the revised HazMAP and proof of adoption will be submitted by the North Central Texas Council of Governments (NCTCOG) to the Texas Division of Emergency Management and the Federal Emergency Management Agency. The plan will be revised and maintained as required under the guidance of the HazMAP and formally adopted by Hunt County and jurisdiction elected officials after each revision.

Following formal adoption by the Hunt County's Commissioners Court and formal adoption of the plan by the governing council of each participating jurisdiction, the actions outlined in the HazMAP will be implemented by the county and participating jurisdictions as described throughout this document.

The Hunt County Emergency Management Coordinator (EMC), or their designee, is responsible for ensuring the HazMAP and its components are monitored, evaluated, and reviewed semiannually by the responsible personnel. The plan in its entirety will be monitored and evaluated. The EMC will use email to request the monitoring activities noted below be implemented and changes documented. The progress of action items will be tracked electronically as "in progress," "deferred," or "completed."

These and other changes affecting the plan will be documented within the Hunt County HazMAP file and identified as updates. Updates will be shared between participants by email or in a meeting (if deemed appropriate) twice a year, and included in annual evaluations and reviews, and the five-year update of the plan.

Members of the Hazard Mitigation Planning Team (HMPT) are responsible for ensuring their mitigation strategy is monitored, evaluated, and reviewed on an annual basis. This will be accomplished by the Hunt County EMC calling an annual meeting of the HMPT, whose members will assist in plan review, evaluation, updates, and monitoring. This meeting will be open to the public and public notices will encourage community participation.

During this annual meeting, the members will provide information and updates on the implementation status of each action item included in the plan. As part of the evaluation, the HMPT will assess whether goals address current and expected conditions, whether the nature and/or magnitude of the risks have changed, if current resources are appropriate for implementing the HazMAP, whether outcomes have occurred as expected, and if agencies and other partners participated as originally proposed. These activities will take place according to the following timetable:

Responsible Personnel	Activity	Update Schedule
Local Planning Team Point of Contact	Monitoring Plan: track implementation and action items, changes to risk assessment, changes to Local Planning Team (LPT), changes to capabilities, and plan integrations.	Twice a year
	Evaluate Plan: assess effectiveness by evaluating completed actions, implementation processes, responsible personnel, and lessons learned.	Annually
	Update Plan	Once every five years

At least once every five years, or more frequently if such a need is determined by the participants, the HazMAP will undergo a major update with NCTCOG. During this process, all chapters of the plan will be updated with current information and analyses and new and/or modified mitigation action plans will be developed. The revised plan will be submitted for review and approval to the Texas Division of Emergency Management and the Federal Emergency Management Agency and presented to the governing council for approval and adoption. The plan will be updated every five years in accordance with regulations.

2.10 Incorporation into Existing Planning Mechanisms

The primary means for integrating mitigation strategies into other local planning mechanisms will be through the revision, update, and implementation of each participating jurisdiction's individual plans that require specific planning and administrative tasks (for example, plan amendments, ordinance revisions, and capital improvement projects).

The members of the HMPT will remain charged with ensuring that the goals and strategies of new and updated local planning documents for their jurisdictions are consistent with the goals and actions of the Hunt County HazMAP and will not contribute to increased hazard vulnerability in Hunt County or its participating jurisdictions.

During the planning process for new and updated local planning documents, such as a comprehensive plan, capital improvement plan, or emergency management plan, Hunt County and its participating jurisdictions will provide a copy of the Hunt County HazMAP to the appropriate parties and recommend that all goals and strategies of new and updated local planning documents are consistent with and support the goals of the Hunt County HazMAP and will not contribute to increased hazards in the affected jurisdiction(s).

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Chapter 3: Hazard Identification and Risk Assessment

Requirement	
§201.6(c)(2)(i)	[The risk assessment shall include a] description of the type, location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.
§201.6(c)(2)(ii)	[The risk assessment shall include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. All plans approved after October 1, 2008 must also address NFIP [National Flood Insurance Program] insured structures that have been repetitively damaged by floods. The plan should describe vulnerability in terms of:
§201.6(c)(2)(ii)(A)	The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas;
§201.6(c)(2)(ii)(B)	An estimate of the potential dollar losses to vulnerable structures identified in this section and a description of the methodology used to prepare the estimate.
§201.6(c)(2)(ii)(C)	Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.
§201.6(c)(2)(iii)	For multi-jurisdictional plans, the risk assessment section must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.

3.1 Hazard Overview

Through an assessment of previous federally declared disasters in Texas, the State of Texas Hazard Mitigation Plan, historical and potential events in Hunt County, and a review of available local mitigation action plans, it was determined that this Hazard Mitigation Action Plan (HazMAP) will address the risks associated with the following nine natural hazards:

- Drought
- Earthquakes
- Expansive Soils
- Extreme Heat
- Flooding (including dam failure)
- Thunderstorms (including hail, wind, and lightning)
- Tornadoes

- Wildfires
- Winter Storms

3.2 Major Disaster Declarations since the 2015 HazMAP

The following table lists the recent major disaster declarations that have occurred in Texas since the approval of Hunt County's 2015 HazMAP until 2018:

Disaster	Event	Incident Period	Declared
DR-4485	Texas Covid-19 Pandemic	January 20, 2020 and continuing	March 25, 2020
DR-4377	Severe Storms and Flooding	June 19, 2018- July 13, 2018	July 06, 2018
DR-4332	Hurricane Harvey	August 23, 2017- September 15, 2017	August 25, 2017
DR-4272	Severe Storms and Flooding	May 22, 2016- June 24, 2016	June 11, 2016
DR-4269	Severe Storms and Flooding	April 17, 2016- April 30, 2016	April 25, 2016
DR-4266	Severe Storms, Tornadoes, and Flooding	March 07, 2016- March 29, 2016	March 19, 2016
DR-4255	Severe Winter Storms, Tornadoes, Straight-line Winds, and Flooding	December 26, 2016- January 21, 2016	February 09, 2016
DR-4245	Severe Storms, Tornadoes, Straight-line Winds, and Flooding	October 22, 2015- October 31, 2015	November 25, 2015
DR-4223	Severe Storms, Tornadoes, Straight-line Winds, and Flooding	May 04, 2015- June 22, 2015	May 29, 2015
DR-4159	Severe Storms and Flooding	October 30, 2013- October 31, 2013	December 20, 2013
DR-4136	Explosion (West, TX Fertilizer)	April 17, 2013- April 20, 2013	August 02, 2013

Source: [FEMA](#)

The following jurisdictions were physically impacted by these declared disasters:

- **Commerce**- DR4255: debris
- **Quinlan**- DR 4245 & 4223: flooding
- **Quinlan ISD**- DR4223: flooding

3.3 Natural Hazard Profiles

Through an assessment of previous federally declared disasters in Texas, the State of Texas Hazard Mitigation Plan, historical and potential events in Hunt County, and a review of available local mitigation action plans, it was determined that this Hazard Mitigation Action Plan (HazMAP) will address the risks associated with the following nine natural hazards:

- Drought
- Earthquakes
- Expansive Soils
- Extreme Heat
- Flooding (including dam failure)
- Thunderstorms (including hail, wind, and lightning)
- Tornadoes
- Wildfires
- Winter Storms

Due to the low probability and history of occurrence of coastal erosion, land subsidence, and hurricane/tropical storm, they will not be profiled in this plan.

Since the adoption of the 2015 HazMAP, the definition of a thunderstorm now includes hail, high winds, and lightning. These individual hazards within a thunderstorm will not be listed nor categorized separately.

Around 2013, areas of North Central Texas began experiencing earthquakes. It is suspected that dormant fault lines have been disturbed. Earthquakes have been added to the list of natural hazards profiled in this update for jurisdictions that feel they could be potentially impacted by them.

For this HazMAP, dam failure is considered a technological hazard and will be addressed in the flooding portion of this HazMAP when applicable. Dam failure is an accidental or unintentional collapse, breach, or other failure of an impoundment structure that results in downstream flooding and is considered both a natural hazard and technological hazard.

The following natural hazard profiles are listed in alphabetical order.

3.3.1 Drought

Drought can be defined as a water shortage caused by the natural reduction in the amount of precipitation expected over an extended period of time, usually a season or more in length. It can be aggravated by other factors such as high temperatures, high winds, and low relative humidity. Drought can impact the economy, environment, and society by limiting food and drinking water, destroying habitat, and triggering health and safety problems due to poor water quality and increased wildfires.

The following chart describes the drought monitoring indices along with drought severity, return period, and a description of the possible impacts of the severity of drought.

Drought Severity	Return Period (years)	Description of Possible Impacts	Drought Monitoring Indices		
			Standardized Precipitation Index (SPI)	NDMC* Drought Category	Palmer Drought Index
Minor Drought	3 to 4	Going into drought; short-term dryness slowing growth of crops or pastures; fire risk above average. Coming out of drought; some lingering water deficits; pastures or crops not fully recovered.	-0.5 to -0.7	D0	-1.0 to -1.9
Moderate Drought	5 to 9	Some damage to crops or pastures; fire risk high; streams, reservoirs, or wells low, some water shortages developing or imminent, voluntary water use restrictions requested.	-0.8 to -1.2	D1	-2.0 to -2.9
Severe Drought	10 to 17	Crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed.	-1.3 to -1.5	D2	-3.0 to -3.9
Extreme Drought	18 to 43	Major crop and pasture losses; extreme fire danger; widespread water shortages or restrictions.	-1.6 to -1.9	D3	-4.0 to -4.9
Exceptional Drought	44 +	Exceptional and widespread crop and pasture losses; exceptional fire risk; shortages of water in reservoirs, streams, and wells creating water emergencies.	less than -2	D4	-5.0 or less

*NDMC - National Drought Mitigation Center

In Texas, local governments are empowered to take action on the behalf of those they serve. When drought conditions exist, a burn ban can be put in place by a county judge or county Commissioners Court prohibiting or restricting outdoor burning for public safety.³ According to the county website, an ozone alert in place or a wind advisory can lead to a burn ban being put in place for a given day in Hunt County. If the county is under ozone alert, wind advisory, or fire weather watch, no burning of any kind is allowed.⁴

3.3.2 Earthquake

An earthquake is a sudden motion or trembling of the earth, either caused by an abrupt release of accumulated strain on the tectonic plates that comprise the earth's crust or from human activities. Scientific studies have tied the quakes in North Central Texas to the disposal of wastewater from oil and gas production.

Magnitude and intensity measure different characteristics of earthquakes. Magnitude measures the energy released at the source of the earthquake and is determined from measurements on seismographs. Intensity measures the strength of shaking produced by the earthquake at a certain location and is determined from effects on people, human structures, and the natural environment.

³ Fire Danger: Texas Burn Bans. Texas A&M Forest Service. 2018.

<<http://texasforestservice.tamu.edu/TexasBurnBans/>>

⁴ No Burning: (OZONE) Air Quality Alert. Hunt County Texas.

<<https://www.parkercountytx.com/231/Burn-Ban-Status-and-Burn-Notification-Fo>>

The Modified Mercalli Intensity Scale classifies earthquakes by the amount of damage inflicted. It quantifies a quake's effects on the land's surface, people, and structures involved. The following is an abbreviated description of the levels of Modified Mercalli intensity.

Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

Source: [USGS Earthquake Hazards Program](#).

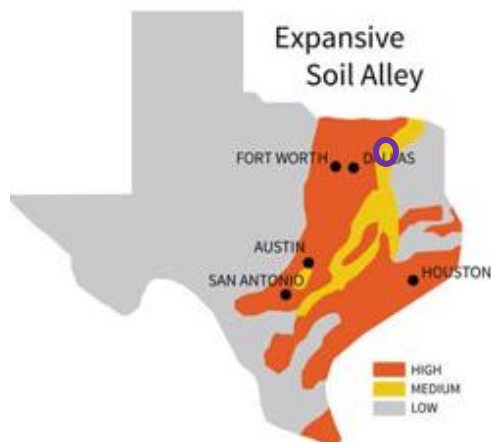
The following table gives intensities that are typically observed at locations near the epicenter of earthquakes of different magnitudes.

Magnitude	Typical Maximum Modified Mercalli Intensity
1.0 - 3.0	I
3.0 - 3.9	II - III
4.0 - 4.9	IV - V
5.0 - 5.9	VI - VII
6.0 - 6.9	VII - IX
7.0 and higher	VIII or higher

Source: [USGS Earthquake Hazards Program](#).

3.3.3 Expansive Soils

Expansive soils are soils that contain large percentages of swelling clays that may experience volume changes of up to 40% in the absence or presence of water. Homes built on expanding smectite clays without due precautions will likely be structurally damaged as the clay takes up water. Cracks will appear in walls and floors. Damage can be minor, but it also can be severe enough for the home to be structurally unsafe. Expansive soil is considered one of the most common causes of pavement distresses in roadways. Depending upon the moisture level, expansive soils will experience changes in volume due to moisture fluctuations from seasonal variations.



Expansive soils is a condition that is native to Texas soil characteristics, and cannot be documented as a time-specific event, except when it leads to structural and infrastructure damage. The great increase in damages in Texas caused by problems with expansive soils can be traced to the rise in residential slab-on-grade construction which began to accelerate in the 1960s. Prior to that time, most residential construction in Texas was pier and beam, with wood siding or other non-masonry covering. Affected homes will be heavily influenced by their proximity to a large body of water, whereas older pier and beam foundations will behave in an entirely different manner.

Geographically, Hunt County is located in the Western Cross Timbers land resource area. Some areas are sandy, some are clay, some are shallow and rocky, and others are pure caliche. Caliche is calcium carbonate that binds with gravel, sand, clay and silt to form a particularly difficult soil to penetrate. There are very few areas in the County that are considered fertile. The Weatherford series consists of deep, well drained, moderately permeable soils that formed in sandy and loamy residuum weathered from weakly cemented sandstone of the Cretaceous age. These very gently sloping to strongly sloping soils occur mainly on convex ridges on hills. Slope ranges from 1 to 12 percent. Mean annual precipitation is about 34 inches and the mean annual temperature is about 65 °F. ⁵

A common procedure for evaluating and rating soil expansion potential is the Expansion Index (EI) test. The Expansion Index, EI, is used to measure a basic index property of soil and therefore, the EI is comparable to other indices such as the liquid limit, plastic limit, and plasticity index of soils.

Expansion Index (EI)	EI Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
>130	Very High

Source: [Expansion Index](#)

⁵ Weatherford Series. CRC: BJW: GLL. 2016.

< https://soilseries.sc.egov.usda.gov/OSD_Docs/W/WEATHERFORD.html>

3.3.4 Extreme Heat

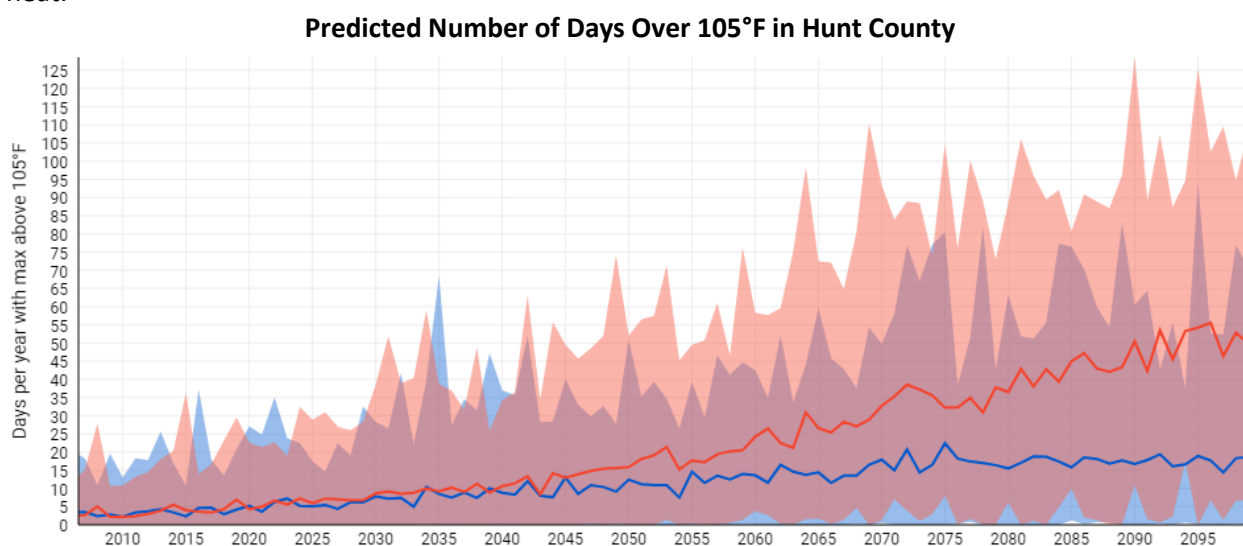
Extreme heat is characterized by a combination of very high temperatures and exceptionally humid conditions. When persisting over a period of time, it is called a heat wave.

Extreme heat can be a factor that drastically impacts drought conditions, as high temperatures lead to an increased rate of evaporation. The total number of days per year with maximum temperature above various thresholds is an indicator of how often very hot conditions occur. Depending upon humidity, wind, and physical workload, people who work outdoors or don't have access to air conditioning may feel very uncomfortable or experience heat stress or illness on very hot days. Hot days also stress plants, animals, and human infrastructure such as roads, railroads, and electric lines. Increased demand for electricity to cool homes and buildings can place additional stress on energy infrastructure.

Below is a visual representation of the expected amount of days per year that are over 105°F in Hunt County.

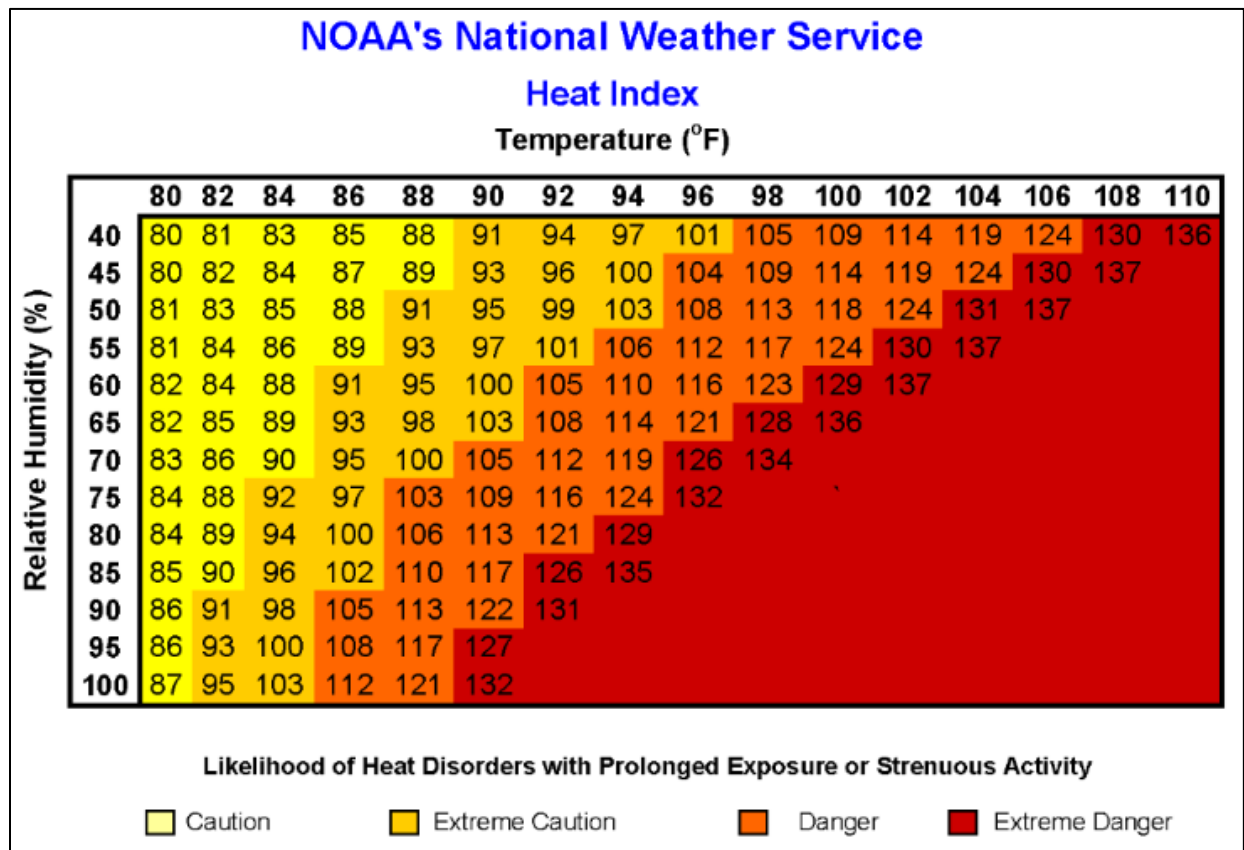
- The **blue area** shows the range of projections for a possible future in which global emissions of heat-trapping gases peak around 2040 and then decline.
- The **red area** shows the range of projections for a possible future in which global emissions of heat-trapping gases continue to increase through the 21st century. This scenario is called Representative Concentration Pathway (RCP) 8.5. For planning purposes, people who have a low tolerance for risk often focus on this scenario.
- Average lines, represented by the solid blue and red lines, show the weighted mean of all projections at each time step (projections are weighted based on model independence and skill). The lines aren't predictions of actual values; they merely highlight trends in the projections.

The trend shows how global emissions have a major role in climate variance and has an impact on extreme heat.

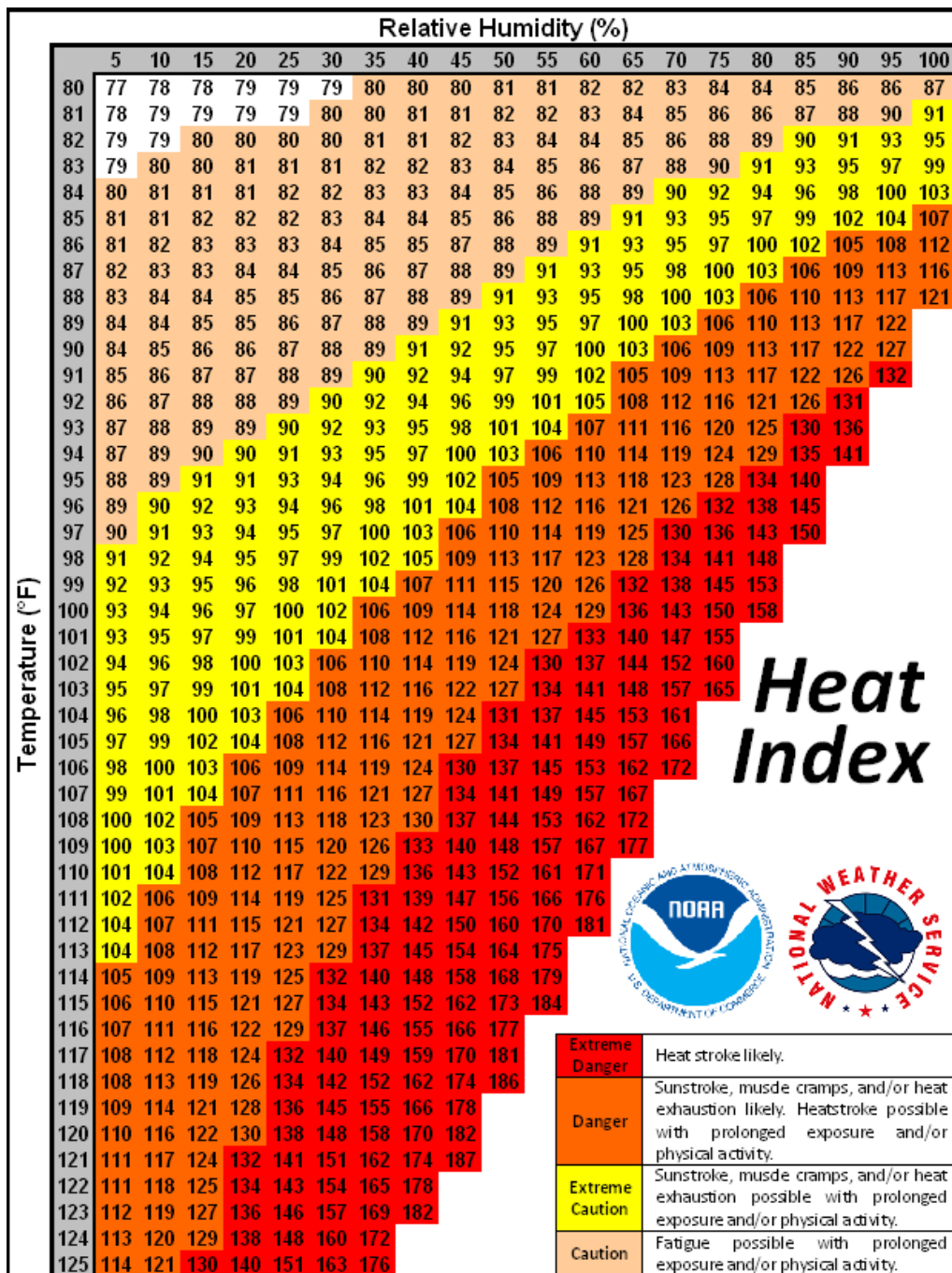


Source: [U.S. Climate Resilience Toolkit](#)

The following scale was used to determine the extent of extreme heat in Hunt County and participating jurisdictions. The Heat Index is a measure of how hot it really feels when relative humidity is factored in with the actual air temperature. To find the Heat Index temperature, look at the Heat Index Chart below. As an example, if the air temperature is 96°F and the relative humidity is 65%, the heat index-how hot it feels-is 121°F. The red area without numbers indicates extreme danger. The National Weather Service (NWS) will initiate alert procedures when the Heat Index is expected to exceed 105°-110°F (depending on local climate) for at least 2 consecutive days.



NWS also offers a Heat Index chart, below, for areas with high heat but low relative humidity. Since heat index values were devised for shady, light wind conditions, exposure to full sunshine can increase heat index values by up to 15°F. Also, strong winds, particularly with very hot, dry air, can be extremely hazardous.



3.3.5 Flooding

Flooding is defined as the accumulation of water within a water body and the overflow of excess water onto adjacent floodplain lands. The floodplain (or flood zone) is the land adjoining the channel of a river, stream, ocean, lake, or other watercourse or water body that is susceptible to flooding. The statistical meaning of terms like “100-year flood” can be confusing. Simply stated, a floodplain can be located anywhere; it just depends on how large and how often a flood event occurs. Floodplains are those areas that are subject to inundation from flooding. Floods and the floodplains associated with them are often described in terms of the percent chance of a flood event happening in any given year. As a community management or planning term, “floodplain” or “flood zone” most often refers to an area that is subject to inundation by a flood that has a 1% chance of occurring in any given year (commonly referred to as the 100-year floodplain).

Flood Insurance Risk Zones means zone designations on Flood Hazard Boundary Map (FHBM) and Flood Insurance Rate Map (FIRM) that indicate the magnitude of the flood hazard in specific areas of a community. The zone categories are below:

High Risk Area	Description
In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones.	
Zone A	Special flood hazard areas inundated by the 100-year flood; base flood elevations are not determined. Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
Zone AE	Special flood hazard areas inundated by the 100-year flood; base flood elevations are determined. The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
Zone A1-30	Special flood hazard areas inundated by the 100-year flood; base flood elevations are determined. These are known as numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format).
Zone AO	Special flood hazard areas inundated by the 100-year flood; with flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones.
Zone AH	Special flood hazard areas inundated by the 100-year flood; flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations are determined. Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance

	of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
Zone A99	Special flood hazard areas inundated by the 100-year flood to be protected from the 100-year flood by a Federal flood protection system under construction; no base flood elevations are determined. Areas with a 1% annual chance of flooding that will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.
Moderate to Low Risk Area	Description
In communities that participate in the NFIP, flood insurance is available to all property owners and renters in these zones.	
Zone B and Zone X (shaded)	Areas of 500-year flood; areas subject to the 100-year flood with average depths of less than 1 foot or with contributing drainage area less than 1 square mile; and areas protected by levees from the base flood. Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. B Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
Zone C and Zone X (un-shaded)	Areas determined to be outside the 500-year floodplain. Area of minimal flood hazard usually depicted on FIRMs as above the 500-year flood level. Zone C may have ponding and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.
Undetermined Risk Area	Description
Zone D	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.

Flash Flooding

A flash flood is a rapid flood that inundates low-lying areas in less than six hours. This is caused by intense rainfall from a thunderstorm or several thunderstorms. Flash floods can also occur from the collapse of a man-made structure or ice dam. Construction and development can change the natural drainage and create brand new flood risks as the concrete that comes with new buildings, parking lots, and roads create less land that can absorb excess precipitation from heavy rains. Flash floods are a high-risk hazard since they can tear out trees and destroy buildings and bridges.

Flooding from Dam Failure

Besides rains and river or lake overflow, dam breaks can also cause flooding. A dam is defined as a barrier constructed across a watercourse for the purpose of storage, control, or diversion of water. Dams typically are constructed of earth, rock, concrete, or mine tailings. A dam failure is an accidental or unintentional collapse, breach, or other failure of an impoundment structure that results in downstream flooding.

Dam failure will be profiled in this plan within the flooding hazard.

3.3.6 Thunderstorms

A thunderstorm is a storm that consists of rain-bearing clouds and has the potential to produce hail, high winds, and lightning.

Hail

Hail occurs when, at the outgrowth of a severe thunderstorm, balls or irregularly shaped lumps of ice greater than 19.05 mm (0.75 inches) in diameter fall with rain. Early in the developmental stages of a hailstorm, ice crystals form within a low-pressure front due to warm air rising rapidly into the upper atmosphere and the subsequent cooling of the air mass. Frozen droplets gradually accumulate on the ice crystals until, having developed sufficient weight, they fall as precipitation.

The Tornado and Storm Research Organization (TORRO) scale for hail extends from H0 to H10 with its increments of intensity or damage potential related to hail size (distribution and maximum), texture, fall speed, speed of storm translation, and strength of the accompanying wind.

An indication of equivalent hail kinetic energy ranges (in joules per square meter) has now been added to the first six increments on the scale, and this may be derived from radar reflectivity or from hail pads. The International Hailstorm Intensity Scale recognizes that hail size alone is insufficient to accurately categorize the intensity and damage potential of a hailstorm, especially towards the lower end of the scale. For example, without additional information, an event in which hail of up to walnut size is reported (hail size code 3: hail diameter of 21-30 mm) would be graded as a hailstorm with a minimum intensity of H2-H3. Additional information, such as the ground wind speed or the nature of the damage the hail caused, would help to clarify the intensity of the event. For instance, a fall of walnut-sized hail with little or no wind may scar fruit and sever the stems of crops but would not break vertical glass and so would be ranked H2-H3. However, if accompanied by strong winds, the same hail may smash many windows in a house and dent the bodywork of a car, and so be graded an intensity as high as H5.

However, evidence indicates maximum hailstone size is the most important parameter relating to structural damage, especially towards the more severe end of the scale. It must be noted that hailstone shapes are also an important feature, especially as the "effective" diameter of non-spheroidal specimens should ideally be an average of the coordinates. Spiked or jagged hail can also increase some aspects of damage. Below is the TORRO Hailstorm Intensity Scale (H0 to H10) in relation to typical damage and hail size codes.

TORRO Hailstorm Intensity Scale				
Size Code	Intensity Category	Typical Hail Diameter (mm)*	Probable Kinetic Energy, J-m ²	Typical Damage Impacts
H0	Hard Hail	5	0-20	No damage
H1	Potentially Damaging	5- 15	>20	Slight general damage to plants, crops
H2	Significant	10- 20	>100	Significant damage to fruit, crops, vegetation
H3	Severe	20- 30	>300	Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
H4	Severe	25- 40	>500	Widespread glass damage, vehicle bodywork damage
H5	Destructive	30- 50	>800	Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
H6	Destructive	40- 60		Bodywork of grounded aircraft dented, brick walls pitted
H7	Destructive	50- 75		Severe roof damage, risk of serious injuries
H8	Destructive	60- 90		Severe damage to aircraft bodywork
H9	Super Hailstorms	75- 100		Extensive structural damage, risk of severe or even fatal injuries to persons caught in the open
H10	Super Hailstorms	>100		Extensive structural damage, risk of severe or even fatal injuries to persons caught in the open

* Approximate range (typical maximum size in bold), since other factors (e.g. number and density of hailstones, hail fall speed, and surface wind speeds) affect severity.

Wind

Straight-line winds are often responsible for the wind damage associated with a thunderstorm. Downbursts or micro-bursts are examples of damaging straight-line winds. A downburst is a small area of rapidly descending rain and rain-cooled air beneath a thunderstorm that produces a violent, localized downdraft covering 2.5 miles or less. Wind speeds in some of the stronger downbursts can reach 100 to 150 miles per hour, which is similar to that of a strong tornado. The winds produced from a downburst often occur in one direction and the worst damage is usually on the forward side of the downburst.

The following Beaufort Wind Chart shows the description and scale used to classify the wind intensity in a thunderstorm. The scale is now rarely used by professional meteorologists, having been largely replaced by more objective methods of determining wind speeds—such as using anemometers, tracking wind echoes with Doppler radar, and monitoring the deflection of rising weather balloons and radiosondes from their points of release. Nevertheless, it is still useful in estimating the wind characteristics over a large area, and it may be used to estimate the wind where there are no wind instruments. The Beaufort scale also can be used to measure and describe the effects of different wind velocities on objects on land or at sea.

The Beaufort Scale of Wind (Nautical)			
Beaufort Number	Name of Wind	Wind Speed	
		knots	knots per hour
0	Calm	<1	<1
1	Light air	1–3	1–5
2	Light breeze	4–6	6–11
3	Gentle breeze	7–10	12–19
4	Moderate breeze	11–16	20–28
5	Fresh breeze	17–21	29–38
6	Strong breeze	22–27	39–49
7	Moderate gale (or near gale)	28–33	50–61
8	Fresh gale (or gale)	34–40	62–74
9	Strong gale	41–47	75–88
10	Whole gale (or storm)	48–55	89–102
11	Storm (or violent storm)	56–63	103–114
12–17	Hurricane	64 and above	117 and above

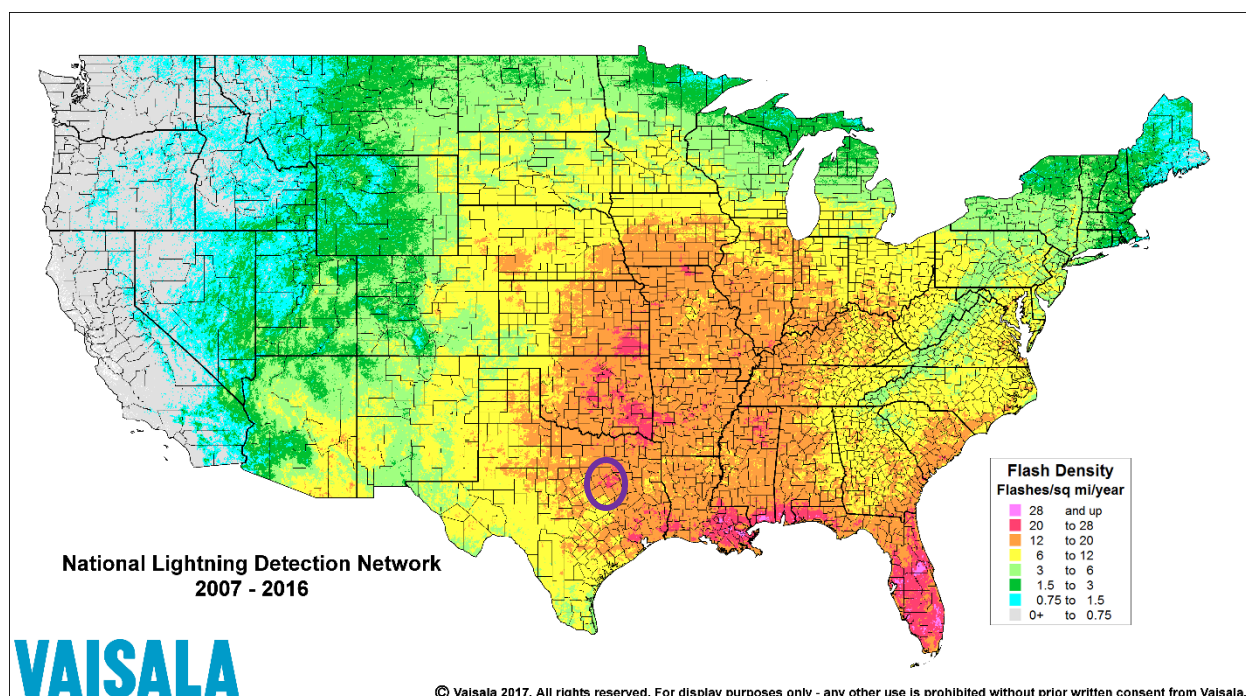
Lightning

Lightning results from the buildup and discharge of electrical energy between positively and negatively charged areas within thunderstorms. A “bolt” or brilliant flash of light is created when the buildup becomes strong enough. These bolts of lightning can be seen in cloud-to-cloud or cloud-to-ground strikes. Bolts of lightning can reach temperatures approaching 50,000°F. While lightning is mostly affiliated with thunderstorms, lightning often strikes outside of these storms, as far as 10 miles away from any rainfall. FEMA states that an average of 300 people are injured and 80 people are killed in the United States each year by lightning. Direct strikes have the power to cause significant damage to buildings, critical facilities, infrastructure, and the ignition of wildfires which can result in widespread damages to property and persons. Lightning is the most significant natural contributor to fires affecting the built environment.









The lightning activity level (LAL) is a common parameter that is part of fire weather forecasts nationwide. LAL is a measure of the amount of lightning activity using values 1 to 6 where:

LAL	Cloud and Storm Development	Lightning Strikes Per 15 Minutes
1	No thunderstorms	-
2	Cumulus clouds are common but only a few reach the towering cumulus stage. A single thunderstorm must be confirmed in the observation area. The clouds produce mainly virga, but light rain will occasionally reach the ground. Lightning is very infrequent	1-8
3	Towering cumulus covers less than two-tenths of the sky. Thunderstorms are few, but two to three must occur within the observation area. Light to moderate rain will reach the ground and lightning is infrequent	9-15
4	Towering cumulus covers two to three-tenths of the sky. Thunderstorms are scattered and more than three must occur within the observation area. Moderate rain is common and lightning is frequent	16-25
5	Towering cumulus and thunderstorms are numerous. They cover more than three-tenths and occasionally obscure the sky. Rain is moderate to heavy and lightning is frequent and intense	>25
6	Similar to LAL 3 except thunderstorms are dry	

According to the following map from the National Lightning Detection Network, jurisdictions in Hunt County experience a flash density of 12-20 flashes per square mile, per year.



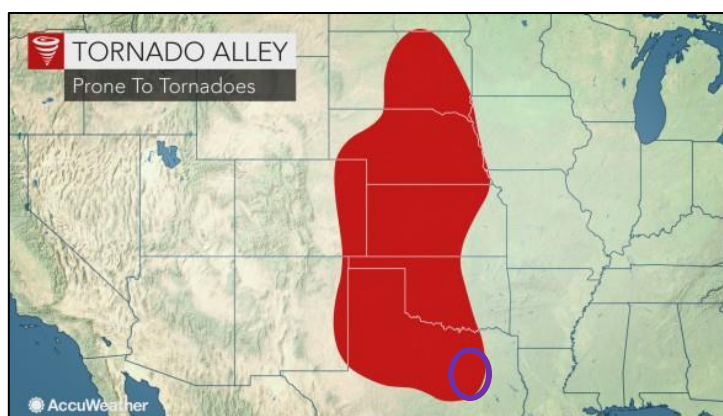
The National Weather Service uses the following Storm Prediction Center (SPC) activity levels to represent severe weather outlooks.

Understanding Severe Thunderstorm Risk Categories					
THUNDERSTORMS (no label)	1 - MARGINAL (MRGL)	2 - SLIGHT (SLGT)	3 - ENHANCED (ENH)	4 - MODERATE (MDT)	5 - HIGH (HIGH)
No severe* thunderstorms expected	Isolated severe thunderstorms possible	Scattered severe storms possible	Numerous severe storms possible	Widespread severe storms likely	Widespread severe storms expected
Lightning/flooding threats exist with <u>all</u> thunderstorms	Limited in duration and/or coverage and/or intensity	Short-lived and/or not widespread, isolated intense storms possible	More persistent and/or widespread, a few intense	Long-lived, widespread and intense	Long-lived, very widespread and particularly intense
					
* NWS defines a severe thunderstorm as measured wind gusts to at least 58 mph, and/or hail to at least one inch in diameter, and/or a tornado. All thunderstorm categories imply lightning and the potential for flooding. Categories are also tied to the probability of a severe weather event within 25 miles of your location.					
 National Weather Service www.spc.noaa.gov 					

3.3.7 Tornadoes

A tornado is a violently rotating column of air that comes in contact with the ground. A tornado can either be suspended from, or occur underneath, a cumuliform cloud. It is often, but not always, visible as a condensation funnel.

Residents in Hunt County are no strangers to tornadic events, as this area of Texas is a part of “Tornado Alley.” Tornado Alley is an area of the U.S. where there is a high potential for tornado development. This area encompasses much of northern Texas northward through Oklahoma, Kansas, Nebraska and parts of New Mexico, South Dakota, Iowa, and eastern Colorado, as seen in this picture.



The Enhanced Fujita Scale, or EF Scale, is the scale for rating the strength of tornadoes during the observed time period via the damage they cause. Six categories from EF0 to EF5 represent increasing degrees of damage. The scale takes into account how most structures are designed and is thought to be an accurate representation of the surface wind speeds in the most violent tornadoes.

Enhanced Fujita Scale		
Enhanced Fujita Category	Wind Speed in Miles Per Hour (MPH)	Potential Damage
EF0	65-85	Light damage. Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over.
EF1	86-110	Moderate damage. Roofs severely stripped; manufactured homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF2	111-135	Considerable damage. Roofs torn off well-constructed houses; foundations of frame homes shifted; manufactured homes completely destroyed; large trees snapped or uprooted; light object become projectiles; cars lifted off ground.
EF3	136-165	Severe damage. Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations blown away some distance.
EF4	166-200	Devastating damage. Well-constructed houses and whole frame houses completely leveled; cars thrown, and small projectiles generated.
EF5	>200	Incredible damage. Strong frame houses leveled off foundations and swept away; automobile-sized projectiles fly through the air in excess of 300 feet.

3.3.8 Wildfire

Wildfire, or wildland fire, is any fire occurring on grassland, forest, or prairie, regardless of ignition source, damages, or benefits. Wildfires are fueled almost exclusively by natural vegetation. Interface or intermix fires are urban/wildland fires in which vegetation and the built environment provide fuel.

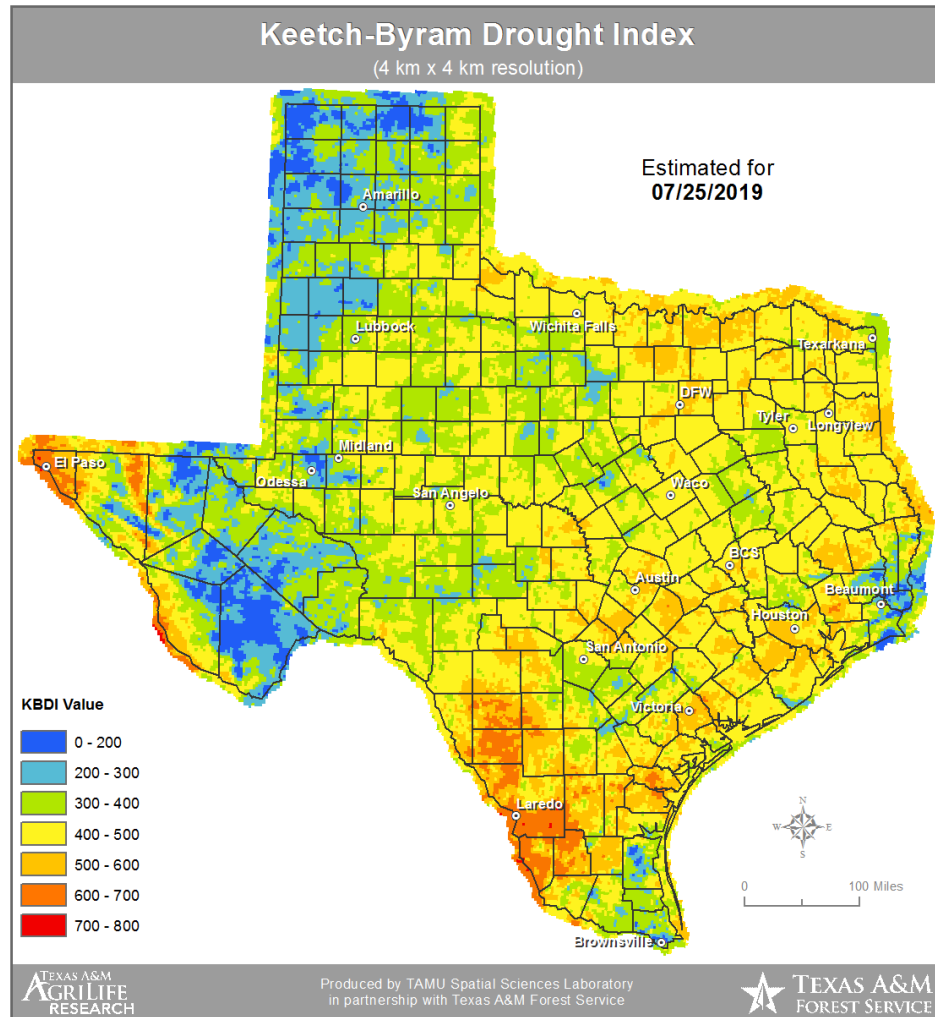
Texas A&M Forest Service (TFS) uses Keetch-Byram Drought Index (KBDI) for determination of drought conditions within the State of Texas. The KBDI is based on a daily water balance, where a drought factor is balanced with precipitation and soil moisture (assumed to have a maximum storage capacity of 8-inches) and is expressed in hundredths of an inch of soil moisture depletion.

The KBDI attempts to measure the amount of precipitation necessary to return the soil to full field capacity. It is a closed system ranging from 0 to 800, where 0 represents a saturated soil, and 800 an absolutely dry soil. At any point along the scale, the KBDI value indicates the amount of precipitation it would take to bring the moisture level back to zero, or saturation.

KBDI was developed to correlate the effects of drought on wildfire potential. This relationship is reflected in the following table:

Index Value (inches)	Color Label	Implications
0 – 200	Blue	Soil moisture and large class fuel moistures are high and do not contribute much to fire intensity. Typical of early spring following winter precipitation.
200 – 400	Blue -> Green	Fuels are beginning to dry and contribute to wildfire intensity. Heavier fuels will still not readily ignite and burn. This is often seen in late spring or early summer.
400 – 600	Yellow -> Orange	Lower litter and duff layers contribute to fire intensity and will burn actively. Wildfire intensity begins to increase significantly. Larger fuels could burn or smoulder for several days. This is often seen in late summer and early fall.
600 – 800	Reds	Often associated with more severe drought with increased wildfire occurrence. Intense, deep-burning fires with extreme intensities can be expected. Live fuels can also be expected to burn actively at these levels.

Below is an example of the KBDI in Texas:



For the purposes of this hazard analysis, wildfires are assessed under what is known as the wildland-urban interface (WUI). The WUI is an area of development that is susceptible to wildfires due to the amount of structures located in an area with vegetation that can act as fuel for a wildfire. The WUI creates an environment in which fire can move readily between structural and vegetation fuels. The expansion of these areas has increased the likelihood that wildfires will threaten structures and people.

Prioritized Fuel Reduction and Treatment of Structural Ignitability

The following chart shows the vegetation, and thus the amount of fuel sources, in Hunt County. Pasture, used for grazing, is the majority of vegetation in the county.

	Class	Description	Acres	Percent
	Open Water	All areas of open water, generally with < 25% cover of vegetation or soil	27,498	4.9 %

	Class	Description	Acres	Percent
	Developed Open Space	Impervious surfaces account for < 20% of total cover (i.e. golf courses, parks, etc...)	26,109	4.6 %
	Developed Low Intensity	Impervious surfaces account for 20-49% of total cover	55,057	9.7 %
	Developed Medium Intensity	Impervious surfaces account for 50-79% of total cover	4,298	0.8 %
	Developed High Intensity	Impervious surfaces account for 80-100% of total cover	1,258	0.2 %
	Barren Land (Rock/Sand/Clay)	Vegetation generally accounts for <15% of total cover	1,712	0.3 %
	Cultivated Crops	Areas used for the production of annual crops, includes land being actively tilled	74,341	13.2 %
	Pasture/Hay	Areas of grasses and/or legumes planted for livestock grazing or hay production	139,831	24.8 %
	Grassland/Herbaceous	Areas dominated (> 80%) by grammanoid or herbaceous vegetation, can be grazed	129,770	23.0 %
	Marsh	Low wet areas dominated (>80%) by herbaceous vegetation	196	0.0 %
	Shrub/Scrub	Areas dominated by shrubs/trees < 5 meters tall, shrub canopy > than 20% of total vegetation	13,123	2.3 %
	Floodplain Forest	> 20% tree cover, the soil is periodically covered or saturated with water	48,335	8.6 %
	Deciduous Forest	> 20% tree cover, >75% of tree species shed leaves in response to seasonal change	40,119	7.1 %
	Live Oak Forest	> 20% tree cover, live oak species represent >75% of the total tree cover	70	0.0 %
	Live Oak/Deciduous Forest	> 20% tree cover, neither live oak or deciduous species represent >75% of the total tree cover	57	0.0 %
	Juniper or Juniper/Live Oak Forest	> 20% tree cover, juniper or juniper/live oak species represent > 75% of the total tree cover	111	0.0 %
	Juniper/Deciduous Forest	> 20% tree cover, neither juniper or deciduous species represent > 75% of the total tree cover	1	0.0 %
	Pinyon/Juniper Forest	> 20% tree cover, pinyon or juniper species represent > 75% of the total tree cover	0	0.0 %
	Eastern Redcedar Forest	> 20% tree cover, eastern redcedar represents > 75% of the total tree cover	1,091	0.2 %
	Eastern Redcedar/Deciduous Forest	> 20% tree cover, neither eastern redcedar or deciduous species represent > 75% of the total tree cover	1,880	0.3 %
	Pine Forest	> 20% tree cover, pine species represent > 75% of the total tree cover	0	0.0 %
	Pine Regeneration	Areas of pine forest in an early successional or transitional stage	0	0.0 %
	Pine/Deciduous Forest	> 20% tree cover, neither pine or deciduous species represent > 75% of the total tree cover	0	0.0 %
	Pine/Deciduous Regeneration	Areas of pine or pine/deciduous forest in an early successional or transitional stage	0	0.0 %
	Total		564,857	100.0 %

Source: Texas Wildfire Risk Assessment Portal Professional Viewer.

Common practices to minimize the spread of wildfire are fuel breaks and fire breaks. A **fuel break** is the thinning of vegetation, or fuels, over a specific area of land. They are most commonly used to surround a

community and slow the spread of a wildfire. By decreasing the amount of vegetation that the fire has to travel through, the risk of extreme fire behavior greatly depreciates.

Types of fuel breaks include:

- **Mechanical Treatments**- A mechanical treatment removes fuels by cutting shrubs, small trees and ladder fuels that make up the understory of a forested area. Materials are either taken from the site or chipped into smaller pieces. Fuels are selected for removal based on how they would contribute to a wildfire. For example, a thick patch of cedar could readily ignite and release significant heat and embers. This fuel type contributes to the rapid spread of a wildfire and would need to be removed.

The objective of mechanical treatment is to reduce the intensity of wildfire. If there is less fuel to burn the fire stays low to the ground giving firefighters a safer condition in which to work.

- **Mulching**- A mulching operation is intended to break fuels into smaller pieces and spread them within the fuel break. While the smaller pieces will still carry fire, they will significantly reduce the intensity of it. The goal is to reduce ladder fuels like tall brush that could carry a ground fire into the top of a tree.

Mulching equipment is classified as either traditional mowers or mulchers that grind the material. Heavy duty mowers are useful when fuels are small enough to be pushed over. However, for sites with an established woody mid-story, or ladder fuels, other equipment may be needed.

- **Herbicide Treatment**- Herbicides are used to control invasive species of plants that will “take over” an area. Invasive plant species can also be reduced with mechanical thinning.

The effectiveness of herbicide treatments depends on existing vegetation, topography, and other local restrictions. Thick underbrush may require mechanical treatments prior to the use of herbicides.

- **Grazing**- Removing fuels by grazing relies on the consumption of plants by animals. Various types of livestock are used in this way across the state, including Hunt County.
- **Prescribed Burning**- Prescribed or controlled, burning is the most commonly used tool for managing hazardous fuel buildups because of its relatively low cost per acre. Prescribed fire improves natural habitats and reduces heavy fuels. It is important to use a certified prescribe burn manager to improve fire safety and reduce smoke management issues.

Fuel breaks are most effective when placed along a natural fire break like a road. Choosing a site along a road also allows easy access for equipment. Regular maintenance of breaks increases their effectiveness in preventing wildfires. To maintain a fuel break, the use of herbicides as a follow up treatment to mulching will help reduce the amount of weed sprouts. Grazing is also an option to maintain a fuel break.

When creating a fuel break, these tips should be used:

- Follow a natural fire break or contour lines.
- Prune large trees to 10 feet from ground.
- Remove ladder fuels such as tall brush and small trees.
- Thin trees to create a crown spacing of 25 to 30 feet.
- Break up thick areas of brush.
- Maintain a minimum width of 60 feet on flat land and 100 feet on slopes.

A **fire break** is a break in vegetation. In some cases, it may be a gravel road, a river, or a clearing made by a bulldozer. A 'green' fire break uses grasses with high moisture content, such as winter rye or winter wheat to provide a break in the continuity of the fuel. If wide enough, a fire break will stop the spread of direct flame. However, embers can still be lofted into the air and travel across the line.

Considering the various types of fuel and fire breaks, the participating jurisdictions who have identified wildfires as a threat have listed wildfire mitigation actions in Chapter 4, along with actions for all the other identified hazards.

3.3.9 Winter Storms

Winter storms originate as mid-latitude depressions or cyclonic weather systems, sometimes following the path of the jet stream. A winter storm or blizzard combines heavy snowfall, high winds, extreme cold, and ice storms. Many winter depressions give rise to exceptionally heavy rain and widespread flooding and conditions worsen if the precipitation falls in the form of snow. The winter storm season varies widely, depending on latitude, altitude, and proximity to moderating influences. The time period of most winter weather is expected to be during the winter season, between November and March. Winter storms affect the entire planning area equally.

During periods of extreme cold and freezing temperatures, water pipes can freeze and crack, and ice can build up on power lines, causing them to break under the weight or causing tree limbs to fall on the lines. These events can disrupt electric service for long periods of time.

An economic impact may occur due to increased consumption of heating fuel, which can lead to energy shortages and higher prices. Schools often close when severe winter weather is forecasted, and it becomes a logistical burden for parents who then have to miss work or find alternative childcare. House fires and resulting deaths tend to occur more frequently from increased and improper use of alternate heating sources. Fires during winter storms also present a greater danger because water supplies may freeze and impede firefighting efforts.

The following Sperry-Piltz Ice Accumulation Index was used to determine the extent of winter conditions:

Weather Conditions and SPIA Index Levels at a Glance:

Ice and Wind: Radial Ice in Inches; Wind in Miles per Hour.	< 15 mph	15-25 mph	25-35 mph	> = 35 mph
0.10 – 0.25 inches	0	1	2	3
0.25 – 0.50 inches	1	2	3	4
0.50 – 0.75 inches	2	3	4	5
0.75 – 1.00 inches	3	4	5	5
1.00 – 1.50 inches	4	5	5	5
> 1.50 inches	5	5	5	5

3.4 Vulnerabilities and Changes in Development since 2015 HazMAP

Vulnerabilities can be social, environmental, economic, or political in nature. These vulnerabilities in turn have various impacts.

We know that, by definition, disasters can cause death and injury. We also know that housing and schools may be destroyed. These particular losses may be considered to be social impacts, as they affect the ability of individuals and families to function.

With regard to negative environmental impacts, if a community contains important ecological sites (e.g., the site of a unique flora or fauna habitat), then these areas may be extremely vulnerable to almost any sort of disaster.

There is monetary loss, or negative economic impact, whenever buildings, non-structural property, or infrastructure is damaged or destroyed. These losses can also result in loss of jobs, loss of economic stability, and loss of services (e.g., power). The more vulnerable the community is to these types of losses, the greater the economic vulnerability to a disaster.

The ability of the community to influence policy makers to reduce vulnerabilities is critical. A disaster entails political impacts. After a disaster has struck, a community often turns to its politicians when looking for guidance. Vulnerabilities may be considered in terms of the individual, the location, the capacity to respond, and the time of day, week, or year.

According to FEMA, the definition of vulnerability is “the susceptibility of people, property, industry, resources, ecosystems, or historic buildings and artifacts to the negative impact of a disaster.” The Hunt

County Hazard Mitigation Planning Team (HMPT) conducted a risk assessment to determine vulnerabilities in their jurisdictions. The following information is an overview of vulnerabilities within Hunt County, including data about critical facilities/infrastructure, historic buildings, lakes, and natural environment.

Overall, the vulnerability level and priorities of the participants have remained the same since the last mitigation plan.

3.4.1 Critical Facilities and Infrastructure

Critical facilities and infrastructure provide services and functions essential to a community, especially during and after a disaster. For a critical facility to function, building systems and equipment must remain operational. Furthermore, it must be supplied with essential utilities (typically power, water, waste disposal, and communications, but occasionally natural gas and steam). An inventory of critical facilities in each participating jurisdiction is located in the Appendix A, though a list of examples is provided below.

Critical Facility Examples

- Ambulance Services (Private)
- Banks
- Detention Centers- federal
- Detention Centers- county
- Detention Centers- local
- Fire Stations
- Fueling Stations
- Government Offices-federal
- Government Offices-county
- Government Offices-local
- Grocery Stores
- Historical Sites
- Hospitals
- Landfills
- Major Employers
- Medical Clinics
- Pharmacies
- Physicians
- Police Stations
- Radio Stations
- Research Labs/Facilities
- Sheriff's Office
- Veterinarian Offices
- Water Towers

Vulnerable Facility Examples

- Amusement Parks
- Apartment Complexes
- Childcare Facilities
- Churches
- Hotels/Motels
- Mobile Home/RV Parks
- Nursing Homes
- Properties Within the 100-year Floodplain
- Recreation Centers
- Retirement Communities
- Schools (Elementary/Middle School/High School)
- Sporting Arenas
- Colleges
- Montessori's/Nursery Schools/Kindergartens

This hazard mitigation action plan (HazMAP) provides enough information regarding critical facilities to enable the jurisdiction to identify and prioritize appropriate mitigation actions; however, some information may be deemed highly sensitive and should not be made available to the public. Information

jurisdictions consider sensitive should be treated as an addendum to this mitigation plan so that it is still a part of the plan, but access can be controlled.

According to the Department of Homeland Security, there are 16 critical infrastructure sectors whose assets, systems, and networks, whether physical or virtual, are considered so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, national public health or safety, or any combination thereof. The following list identifies the 16 critical infrastructure sectors.

Critical Infrastructure Sectors

- Chemical Sector
- Commercial Facilities Sector
- Communication Sector
- Critical Manufacturing Sector
- Dams Sector
- Defense Industrial Base Sector
- Emergency Services Sector
- Energy Sector
- Financial Services Sector
- Food and Agriculture Sector
- Government Facilities Sector
- Healthcare and Public Health Sector
- Information Technology Sector
- Nuclear Reactors, Materials, and Waste Sector
- Transportation Sector
- Water and Wastewater Systems Sector

The age of this infrastructure ties into its level of vulnerability. The older the infrastructure, the more likely it is to fail due to the impacting hazards. Collapsed bridges, unsafe power grids, interrupted water supply-weak infrastructure can turn natural hazards into disasters. When critical infrastructure fails, it becomes nearly impossible to aid those who lack the means of evacuating on their own. This results in rescue operations that take longer to plan and execute and pose increased risks to first responders and residents due to the lack of information on the number of affected residents or the location of those who need additional assistance. Below is a list of examples for critical infrastructure.

Critical Infrastructure Examples

- Airports
- Bridges and Overpasses
- Cell Towers
- Dams/ Levees
- Wastewater Pump & Lift Stations
- Major Roadways
- Power Plant
- Railways
- Sewer Lines
- Solar Farms
- Superfund Sites
- Utility Lines
- Wastewater Treatment Facilities
- Water Lines
- Water Treatment Facilities
- Wind Farms

The following sections go into detail about some of these critical infrastructures.

Bridges

Bridges are *immensely* important to everyday travel. Bridges allow safe passage where previously it was not possible or much more difficult. Bridges allow people go to school, seek medical help, and go to work without having to negotiate a busy road, a dangerous railway line, or a fast-flowing river. Bridges are also extremely vulnerable to the impacts of natural hazards, specially earthquakes, flooding, and winter storms.

Below is a detailed list of the historic and notable bridges within the county. Of these 11 bridges, only 4 are open to vehicular traffic. These bridges are extremely vulnerable to severe weather.

Name	Location	Status	Design	Year Built	Year Lost	Span Length (ft.)	Total Length (ft.)
<u>Caney Creek Bridge</u>	CR 3116 over Caney Creek	No longer exists	Pony truss	ca. 1950	1999	50.9	50.9
<u>Cowleech Creek Bridge</u>	CR 1083 over Cowleech Creek	Replaced by a new bridge	Pony truss	1950	2007	62.0	62.0
<u>Hickory Creek Fork Bridge</u>	CR 1033 over Hickory Creek Fork	Open to traffic	Deck truss	1985	--	60.0	60.0
<u>Rays Creek Bridge</u>	FM 2874 (old TX 24) over Rays Creek	Derelict/abandoned	Slab	1925	--	22.0	198.2
<u>Sabine River Bridge</u>	CR 522 over Sabine River	No longer exists	Pony truss	ca. 1950	2003	60.0	60.0
<u>Scatter Branch Bridge</u>	FM 2874 (old TX 24) over Scatter Branch	Open to traffic	Slab	1925	--	22.0	131.9
<u>So. Sulphur River Bridge</u>	FM 2874 (old TX 24) over So. Sulphur River	Derelict/abandoned	Stringer	1925	--	65.0	352.1
<u>So. Sulphur River Bridge</u>	FM 2874 (old TX 24) over So. Sulphur River	Derelict/abandoned	Slab	1925	--	22.0	175.9
<u>South Sulphur River FM 118 Bridge</u>	FM 118 over South Sulphur River	Destroyed by flooding	Slab	1954	2015	24.9	149.9
<u>TX276 Two Mile Bridge</u>	TX Hwy 276 over Lake	Replaced by a new bridge	Stringer	1959	2016	40.0	9600.5

Name	Location	Status	Design	Year Built	Year Lost	Span Length (ft.)	Total Length (ft.)
	Tawakoni; Sabine River						
Tidwell Creek Bridge	CR 1033 over Tidwell Creek	No longer exists	Pony truss	ca. 1950	2002	28.9	28.9
Abbreviations:							
CR: County Road							
FM: Farm-to-Market							
Trib: Tributary							

Source: Bridgehunter.com

The [Texas Department of Transportation](#) (TxDOT) manages 310 on-system bridges and 141 off-system bridges within the county.

On-system bridges are located on the designated state highway system, are maintained by TxDOT, and are typically funded with a combination of federal and state or state-only funds.

Off-system bridges are not part of the designated state highway system and are under the direct jurisdiction of the local government such as a county, city, other political subdivision of the state, or special district with authority to finance a highway improvement project.

Roads

The [Hunt County Transportation Plan](#) provides specific and strategic direction for meeting the multi-modal transportation needs during the next two decades of a growing and diverse population for safe, efficient, and affordable transportation. By integrating the development of Hunt County's transportation infrastructure with the regional transportation system for North Texas, the Transportation Plan supports economic development and improves quality of life not only for Hunt County, but for the North Central Texas Region

Below is a list of low water crossings in Hunt County as of 2012. A low water crossing provides a bridge or overpass for vehicles to cross bodies of water when water flow is low. Under high-flow conditions, water runs over the roadway and impedes vehicular traffic. Texas leads the nation in flash flood deaths, and most are due to people crossing these low areas in times of flooding.

Road	Flooding Source	Low Water Crossing Type	Owner
CR 2216	East Caddo Creek	Bridge Class	Hunt County
CR 2264	Caddo Creek	Bridge Class	Hunt County
CR 2595	Bearpen Creek	Bridge Class	Hunt County
CR 3207	Turkey Creek West Fork	Bridge Class	Hunt County
CR 3205	Turkey Creek Middle Fork	Bridge Class	Hunt County
CR 3201	Caney Creek Branch	Bridge Class	Hunt County

Road	Flooding Source	Low Water Crossing Type	Owner
CR 3203	Turkey Creek, Trib	Bridge Class	Hunt County
FM 1565	Sabine River Relief	Bridge Class	TXDoT
IH30 N FRONTAGE ROAD	East Caddo Creek	Bridge Class	TXDoT
FM 36	West Caddo Creek Relief	Bridge Class	TXDoT
CR 2216	East Caddo Creek	Bridge Class	TXDoT

Definitions

Low Water Crossing Types Defined:

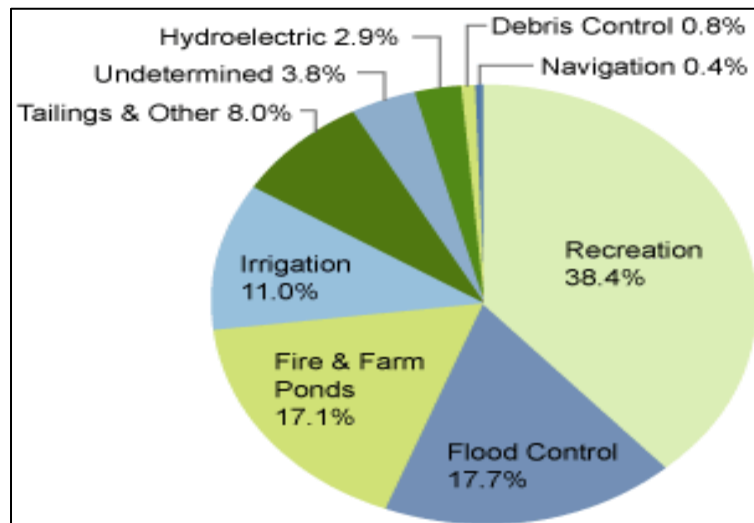
Bridges are open-bottom structures with elevated decks. They may be designed with one or several piers. Low-water bridges generally have greater capacity and can pass higher flows underneath the driving surface than most vented and unvented fords.

Source: [Texas Low Water Crossing Inventory 032312](#)

Dams

Dams provide a range of economic, environmental, and social benefits, including recreation, flood control, water supply, hydroelectric power, waste management, river navigation, and wildlife habitat.

The graph to the right reflects the benefits of dams in the United States.



Source: [FEMA- Benefits of Dams](#)

The following is a list of the dams in Hunt County provided by the United States Army Corps of Engineers. Those without a city name can be presumed to be located in the unincorporated Hunt County. The list reflects the most current 2018 National Inventory of Dams (NID) database. State and federal dam regulators provided their data from May to November 2018 for inclusion in the 2018 database.

Please contact the respective state or federal regulatory authority for the most up-to-date information. The NID consists of dams meeting at least one of the following criteria, though to protect the sensitivity of the dams the criteria will not be identified for each dam:

1. High hazard potential classification - loss of human life is likely if the dam fails.
2. Significant hazard potential classification - no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns.
3. Height is equal to or exceeds 25 feet and storage exceeds 15 acre-feet.

4. Height exceeds 6 feet and storage is equal to or exceeds 50 acre-feet.

	Dam Name	Jurisdiction	Owner	EAP
1	UPPER LAKE FORK CREEK WS SCS SITE 5 DAM	NONE	UPPER SABINE SWCD; LAKE FORK WCID 1	NR
2	UPPER LAKE FORK CREEK WS SCS SITE 7 DAM	NONE	UPPER SABINE SWCD; LAKE FORK WCID 1	NR
3	UPPER LAKE FORK CREEK WS SCS SITE 6 DAM	NONE	UPPER SABINE SWCD; LAKE FORK WCID 1	NR
4	UPPER LAKE FORK CREEK WS SCS SITE 10A DAM	NONE	UPPER SABINE SWCD	Y
5	UPPER LAKE FORK CREEK WS SCS SITE 4 DAM	NONE	UPPER SABINE SWCD; LAKE FORK WCID 1	NR
6	UPPER LAKE FORK CREEK WS SCS SITE 3 DAM	NONE	UPPER SABINE SWCD; HUNT COUNTY; LAKE FORK WCID 1	N
7	UPPER LAKE FORK CREEK WS SCS SITE 2 DAM	NONE	UPPER SABINE SWCD; LAKE FORK WCID 1	N
8	HEFLEY LAKE DAM		BILL HEFLEY	NR
9	ADAMS LAKE DAM		ADAMS LAKE DAM	NR
10	DRY CREEK RANCH LAKE NO 2 DAM		DRY CREEK RANCH	NR
11	GREENVILLE CLUB LAKE DAM		GREENVILLE LAKE AND WATER COMPANY	N
12	ASHMORE LAKE DAM		RODNEY ASHMORE	NR
13	GREENVILLE RESERVOIR NO 4 DAM	GREENVILLE	CITY OF GREENVILLE	Y
14	GREENVILLE RESERVOIR NO 3 DAM	GREENVILLE	CITY OF GREENVILLE	NR
15	GREENVILLE RESERVOIR NO 5 DAM	GREENVILLE	CITY OF GREENVILLE	Y

	Dam Name	Jurisdiction	Owner	EAP
16	PILOT GROVE CREEK WS SCS SITE 63 DAM	NONE	UPPER SABINE SWCD; HUNT COUNTY	N
17	PILOT GROVE CREEK WS SCS SITE 62 DAM	NONE	UPPER SABINE SWCD; HUNT COUNTY	N
18	PILOT GROVE CREEK WS SCS SITE 61 DAM	NONE	UPPER SABINE SWCD; HUNT COUNTY	N
19	PILOT GROVE CREEK WS SCS SITE 60 DAM	NONE	UPPER SABINE SWCD; HUNT COUNTY	N
20	PILOT GROVE CREEK WS SCS SITE 59 DAM	NONE	UPPER SABINE SWCD; HUNT COUNTY	N
21	WOLFE CITY RESERVOIR NO 2		CITY OF WOLFE CITY	N
22	WOLFE CITY RESERVOIR NO 1		CITY OF WOLFE CITY	N
23	PILOT GROVE CREEK WS SCS SITE 65 DAM	NONE	UPPER SABINE SWCD; HUNT COUNTY	NR
24	UPPER LAKE FORK CREEK WS SCS SITE 1 DAM	NONE	UPPER SABINE SWCD; LAKE FORK WCID 1	Y
25	PILOT GROVE CREEK WS SCS SITE 64A DAM	NONE	UPPER SABINE SWCD; HUNT COUNTY	N
26	PILOT GROVE CREEK WS SCS SITE 67 DAM	TRINIDAD	UPPER SABINE SWCD; HUNT COUNTY	Y
27	PILOT GROVE CREEK WS SCS SITE 69 DAM	TRINIDAD	UPPER SABINE SWCD; HUNT COUNTY	NR
28	HUTCHINS DAM		MRS HUTCHINS	NR
29	ROLLINS LAKE DAM	NONE	ALBERT ROLLINS	NR
30	IVY LAKE DAM	NONE	BRUCE CLARDY	NR
31	MARION LAKE DAM		PAUL MARION	NR
32	LOUISIANA AND ARKANSAS RR LAKE DAM		LOUISIANA AND ARKANSAS RR	NR
33	WEBB HILL LAKE DAM		WEBB HILL COUNTRY CLUB INC	NR

	Dam Name	Jurisdiction	Owner	EAP
34	GREENVILLE RESERVOIR NO 1 DAM	GREENVILLE	CITY OF GREENVILLE	NR
35	GREENVILLE RESERVOIR NO 2 DAM	GREENVILLE	CITY OF GREENVILLE	NR
36	GREENVILLE RESERVOIR NO 6 DAM		CITY OF GREENVILLE	NR
37	ROUNDHOUSE POOL DAM		UNION PACIFIC RAILROAD COMPANY	Y
38	WEST CADDO CREEK PONDS 1 AND 2 LEVEE	GREENVILLE	CITY OF CADDO MILLS	NR
39	PILOT GROVE CREEK WS SCS SITE 54REV DAM	NONE	UPPER SABINE SWCD; HUNT COUNTY	NR
40	PILOT GROVE CREEK WS SCS SITE 68B DAM	NONE	UPPER SABINE SWCD; HUNT COUNTY	NR

Source: National Inventory of Dams, <https://nid-test.sec.usace.army.mil/ords/f?p=105:1>

* An Emergency Action Plan (EAP) is a formal document that identifies potential emergency conditions at a dam and specifies actions to be followed to minimize loss of life and property damage. Under the EAP category, the following acronyms are used Y (Yes), N (No), or NR (Not Required)

Environmental Protection Agency National Priorities List of Superfund Sites

Besides local critical facilities, some jurisdictions have national critical facilities that are monitored by the federal government, such as superfund sites. The Environmental Protection Agency's (EPA's) Superfund program is responsible for cleaning up some of the nation's most contaminated land and responding to environmental emergencies, oil spills, and natural disasters. To protect public health and the environment, the Superfund program focuses on making a visible and lasting difference in communities, ensuring that people can live and work in healthy, vibrant places. The [EPA National Priorities List](#) (NPL) is the list of sites of national priority among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation.⁶

⁶ Superfund: National Priority List (NPL). United States Environmental Protection Agency. <<https://www.epa.gov/superfund/superfund-national-priorities-list-npl>>

According to the list, there was one superfund site in Hunt County: the Old Esco Manufacturing site. The Old ESCO Manufacturing site is located in Greenville, Texas. The site is a former electrical transformer and specialty switch gear manufacturer. ESCO began operations on the property in the late 1940s and continued operating on site until about 1970, when it relocated to another property in Greenville. During this time, ESCO was leasing the property and building. In 1983, ESCO purchased this property and owned it until it defaulted for non-payment of taxes in 2001. ESCO filed for bankruptcy in 1990. The property is currently zoned light industrial. According to the city of Greenville Community Development Director, the city master plan shows the future land use for this property as low density residential/park/open space.

On October 10, 2018, the United States EPA announced that the Old Esco Manufacturing site was deleted from the Superfund National Priorities list in Fiscal Year 2018.

3.4.2 Historic Buildings and Districts

Historic landmarks and districts are important to consider when evaluating vulnerabilities to hazards. What is historic, and worth saving, varies with the beholder. “Historic” applies to a building that is part of a community’s tangible past. Due to the advanced of these structures, they are highly susceptible to cracking, leaning, and total destruction caused by any of the hazards.

Historic buildings and structures, artwork, monuments, family heirlooms, and historic documents are often irreplaceable, and may be lost forever in a disaster if not considered in the mitigation planning process. The loss of these resources is all the more painful because of how often residents rely on their presence after a disaster, to reinforce connections with neighbors and the larger community, and to seek comfort in the aftermath of a disaster.

According to the [Texas Historic Sites Atlas](#), there are 85 cemeteries, 1 museum, and 99 historical markers throughout Hunt County. There are also 7 national register properties, and 6 courthouses on the list.⁷

The [Hunt County Historical Commission](#) is responsible for keeping the county’s history alive.

3.4.3 Bodies of Water

The level of local water sources has a dramatic effect on the impact of drought and flooding in the participating jurisdictions. Less than five percent, 41 square miles, of Hunt County’s total area is covered with water. The most notable water feature in the county is Lake Tawakoni, located approximately 15 miles south of Greenville and 10 miles east of Quinlan. This lake covers approximately 36,700 acres in Hunt, Rains, and Van Zandt counties and is fed by the Sabine River. SH 276 and FM 751 provide east-west and north-south movements across the lake, respectively.

The following list identifies all the lakes and reservoirs in the participating jurisdictions. Reservoirs are important for providing water supplies, particularly in a state with such variable streamflow. More than half of the available surface water in Texas is from reservoirs. Reservoirs are able to capture and store floodwaters for use during times of drought when the rivers are low or dry.

⁷ Texas Historical Sites Atlas. 2015. Texas Historical Commission. <<https://atlas.thc.state.tx.us/>>

Name	United States Geological Survey Topographic Map
Adams Lake Dam	Commerce South
Ashmore Lake Dam	Greenville Southeast
City of Caddo Mills Lake Dam	Greenville Southwest
Dam Number 2	Lone Oak North
Dam Number 3	Lone Oak North
Dam Number 4	Lone Oak North
Dam Number 5	Lone Oak South
Dam Number 6	Lone Oak South
Dry Creek Ranch Lake Number 1 Dam	Quinlan
Dry Creek Ranch Lake Number 2 Dam	Quinlan
Greenville Club Lake Dam	Greenville Southeast
Greenville Reservoir Number 3 Dam	Greenville Northeast
Greenville Reservoir Number 4 Dam	Greenville Northeast
Greenville Reservoir Number 5 Dam	Greenville Northeast
Hefley Lake Dam	Commerce South
Hutchins Dam	Greenville Northeast
Ivy Lake Dam	Quinlan
Louisiana and Arkansas Rr Lake Dam	Commerce South
Marion Lake Dam	Greenville Northeast
Rollins Lake Dam	Greenville Southeast
Soil Conservation Service Site 1 Dam	Lone Oak North
Soil Conservation Service Site 10a Dam	Lone Oak North
Soil Conservation Service Site 2 Dam	Lone Oak North
Soil Conservation Service Site 3 Dam	Lone Oak North
Soil Conservation Service Site 4 Dam	Lone Oak North
Soil Conservation Service Site 5 Dam	Lone Oak South
Soil Conservation Service Site 6 Dam	Lone Oak South

Source: [TX HomeTownLocator](#)

3.4.4 Natural Environment and Federally Protected Species

The Texas Parks and Wildlife Department established a [list](#) of rare, threatened, and endangered species within Parker County. All species on the county list are tracked in the Texas Natural Diversity Database (TXNDD). Species include birds, fishes, mammals, mollusks, and reptiles.⁸ The following species are listed as rare species living in Hunt County:

Amphibians	Woodhouse's toad	Birds	interior least tern
Amphibians	Strecker's chorus frog	Birds	western burrowing owl
Amphibians	southern crawfish frog	Mammals	southern short-tailed shrew

⁸ Texas Parks and Wildlife Department, Wildlife Division, Diversity and Habitat Assessment Programs. TPWD County Lists of Protected Species and Species of Greatest Conservation Need. Parker County. 30 December 2016.

Birds	white-faced ibis	Mammals	southeastern myotis bat
Birds	wood stork	Mammals	tricolored bat
Birds	bald eagle	Mammals	big brown bat
Birds	black rail	Mammals	eastern red bat
Birds	piping plover	Mammals	hoary bat
Birds	red knot	Mammals	Mexican free-tailed bat
Birds	Franklin's gull	Mammals	swamp rabbit
Mammals	American badger	Reptiles	Texas horned lizard
Mammals	eastern spotted skunk	Reptiles	northern scarlet snake
Mammals	plains spotted skunk	Crustaceans	Parkhill Prairie crayfish
Mammals	mountain lion	Insects	American bumblebee
Mammals	plains spotted skunk	Insects	sage sphinx moth
Mammals	mountain lion	Mollusks	Texas pigtoe
Mammals	American badger	Mollusks	southern hickorynut
Mammals	eastern spotted skunk	Mollusks	Louisiana pigtoe
Reptiles	alligator snapping turtle	Mollusks	Texas heelsplitter
Reptiles	eastern box turtle	Plants	Topeka purple-coneflower
Reptiles	western box turtle	Plants	Oklahoma grass pink
Reptiles	American alligator		
Reptiles	slender glass lizard		

Currently, there are no regional plans related to the future of North Texas' natural assets of habitat, plants, animals, open space areas and corridors, tree canopy, or carbon footprint. There are studies of particular topics that have been conducted for other purposes. For example, the Environmental Impact Statement of an individual project considers the project's impact on endangered species. Also, there are studies underway on particular topics but for smaller areas within the North Texas region.⁹

Under Chapter 12.0011 of the Texas Parks and Wildlife Code, Texas Parks and Wildlife Department (TPWD) is charged with "providing recommendations that will protect fish and wildlife resources to local, state, and federal agencies that approve, permit, license, or construct developmental projects" and "providing information on fish and wildlife resources to any local, state, and federal agencies or private organizations that make decisions affecting those resources." Project types reviewed by TPWD include reservoirs, highway projects, pipelines, urban infrastructure, utility construction, renewable energy, and residential and commercial construction, as well as many others.

Each state in the U.S. has completed a Wildlife Action Plan or Comprehensive Wildlife Conservation Strategy to improve the stability and recovery of species which are in decline, already listed as threatened or endangered, and/or are representative of the diversity and health of the state's wildlife. To date, these plans have become important guides for natural resource management programs, conservation funding, partnership building, project development, and problem-solving at local and regional levels. TPWD is the

⁹ North Texas to 2030: Extending the Trends. Vision North Texas.

steward of the Texas Conservation Action Plan, formerly called the Texas Comprehensive Wildlife Conservation Strategy 2005 - 2010 or [Texas Wildlife Action Plan](#). This revised Texas plan (approved by the U.S. Fish and Wildlife Service in 2013) is a series of 11 regionally-specific Ecoregion handbooks, a Statewide/Multi-region handbook, and this Overview document. Collectively, they are now called the Texas Conservation Action Plan.

While the Texas Conservation Action Plan is a conservation plan for species at most at risk, its primary purpose is to bring people together to realize conservation benefits, prevent species listings, and preserve our natural heritage for future generations. [Handbooks](#) contain information on Species of Greatest Conservation Need, regionally important habitats, local conservation goals and projects, regional and statewide activities, contact information for conservation partners, and maps. The activities in each handbook are starting points to engage landowners, land-use planners, natural resources professionals, and the public in regional and local community-based conservation.¹⁰

3.4.5 Factors that Increase Vulnerability

Factors that decrease vulnerability to hazards include climate variability, population increase and demographics, repetitive loss properties, new development, and the wildland-urban interface.

Climate Variability

A key factor to an increase in vulnerability is climate variability, also known as climate change. According to the United States Environmental Protection Agency (EPA),

Texas's climate is changing. Most of the state has warmed between one-half and one-degree Fahrenheit (°F) in the past century. In the eastern two-thirds of the state, average annual rainfall is increasing, yet the soil is becoming drier. Rainstorms are becoming more intense, and floods are becoming more severe... In the coming decades, storms are likely to become more severe, deserts may expand, and summers are likely to become increasingly hot and dry, creating problems for agriculture and possibly human health. Our climate is changing because the earth is warming. People have increased the amount of carbon dioxide in the air by 40% since the late 1700s. Other heat-trapping greenhouse gases are also increasing. These gases have warmed the surface and lower atmosphere of our planet about one degree during the last 50 years. Evaporation increases as the atmosphere warms, which increases humidity, average rainfall, and the frequency of heavy rainstorms in many places—but contributes to drought in others...¹¹

The following is an article from the Dallas Morning News that describes the effects of climate change specifically in North Central Texas:

The United States has just come off a record year for weather and climate disasters and, by most accounts, it's only going to get worse.

¹⁰ Texas Conservation Action Plan. Texas Parks & Wildlife.

< https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/nongame/tcap/ >

¹¹ What Climate Change Means for Texas. August 2016. EPA 430-F-16-045. United States Environmental Protection Agency.< <https://archive.epa.gov/epa/sites/production/files/2016-09/documents/climate-change-tx.pdf> >

Last year hurricanes Harvey, Irma, and Maria; the wildfires and floods in California; and tornado outbreaks in the Midwest and the South delivered \$306.2 billion in damages, more than any year in history when adjusted for inflation.

Texas is particularly vulnerable to a changing climate. It has had more costly weather-related disasters than any other state, and those events will happen more often as air and ocean temperatures climb, scientists say.

"Climate change is not just about polar bears," said Katharine Hayhoe, a climate scientist at Texas Tech University with an impressive YouTube following. "It will affect North Texas profoundly."

Between 2041 and 2050, Dallas-Fort Worth may see August temperatures rise from a mean of 86 °F at the end of the 20th century to 94 °F, with extremes rising above 120, reports one study by scientists at the University of Texas at Arlington.

Longer droughts and more extreme rainstorms will pose a challenge for those who manage drinking water supplies, those who raise cattle, and those who oversee our roads and railways.

The changes may also have unexpected effects on people's daily lives, including jobs. Intense heat can imperil cars and airplanes, evaporate drinking water supplies, and halt outdoor labor such as farm work and construction.

Adam Smith, a scientist with the federal government's main climate agency, the National Oceanic and Atmospheric Administration, calls Texas "the disaster capital of the United States."

As Smith explains, Texas is susceptible to almost every kind of weather and climate hazard, from extreme cold to extreme heat, from severe drought and wildfires to torrential floods. Texas is also home to a booming population and critical infrastructure, including the petrochemical plants that were damaged in Hurricane Harvey.

"Texas is a hot-spot for a wide range of extreme natural events due to its geography," said Smith. "We expect many of these extremes to become more frequent and intense as time moves forward."

While uncertainty is built into climate models, scientists have a high degree of confidence in many of the changes they observe and predict.

The bigger, longer and more common an event is, the greater the accuracy with which scientists can project how climate change will impact it, said Hayhoe, a lead author of a November 2017 climate change report overseen by scientists at 13 federal agencies. Larger events have more data associated with them and can be easier to model.

Researchers are very confident that climate change will increase both average and extreme temperatures. They are also confident that climate change is likely to increase the risk of heavy precipitation in many areas and may bring stronger droughts to the south-central and southwestern parts of the U.S.

Projected impacts on smaller-scale events like tornadoes and hailstorms are less well understood.

One area of consensus is the cause of climate change. "It is extremely likely that human activities, especially emissions of greenhouse gases, are the dominant cause of the observed warming since the mid-20th century," note the authors of the Fourth National Climate Assessment, a Congressionally mandated review that scientists conduct every four years. They add that there are no convincing alternative explanations.

Below is how these changes will affect our area, the evidence behind the projections, and how confident scientists are in each of these findings.

Heat

More record-setting heat in North Texas is a virtual certainty. Already, we are living through the warmest period in the history of modern civilization, the federal report found, and that warming will accelerate.

Climate science contrarians often attack the models on which climate projections are based. Myron Ebell, who led President Donald Trump's transition team at the Environmental Protection Agency, accepts that humans are most likely responsible for warming, but he says models have exaggerated the outcome. Ebell is director of the Center for Energy and Environment at the Competitive Enterprise Institute, a libertarian advocacy group based in Washington, D.C. He acknowledges that he is not a scientist.

In fact, researchers have used models to predict global temperature changes for more than 50 years, and the models' projections have been fairly accurate over the long term. In the early 21st century, a discrepancy appeared between observed and modeled temperatures—a period dubbed the "global warming slowdown" or "hiatus."

Scientists have published scores of studies on the mismatch and tied it to several factors that contributed to lower-than-expected observed temperatures. Those factors include a series of small volcanic eruptions, the cooling effects of which scientists had underestimated, and lower than expected solar output.

Findings from those studies are helping to improve climate model simulations and helping scientists better understand why there are differences between simulations and observations in the early 21st century, said Ben Santer, a climate scientist at the Lawrence Livermore National Laboratory.

Global average temperatures increased about 1.8 degrees Fahrenheit in the last 115 years. In Dallas, they climbed from about 65 °F during the early part of the 20th century to 68 °F during the most recent decade. If nothing is done to reduce emissions of carbon dioxide and other greenhouse gases, average temperatures in the city may reach the low 70s by 2050 and surpass 75°F by the end of the century.

Earlier this year, Amir Jina and colleagues published a study in the journal *Science* that estimated economic damage from climate change in each county of the United States.

Once temperatures reach the high 90s, equal to or above body temperature, fatality rates go up.

Besides people, heat also affects roads. A 2015 study by the University of Texas at Arlington (UTA) that focused on the impact of climate change on transportation predicted "an increase in wildfires along paved highways, heat-induced stress on bridges and railroads, air-conditioning problems in public transport vehicles and heat-related accidents by failure of individual vehicles and heat-related stress."

The study concluded, "These impacts can be translated into substantial mobility and economic loss."

Drought

Along with heat will come stronger drought, which "has profound economic impacts," said Hayhoe.

The prediction that North Texas will have longer and more severe droughts is based on multiple factors, including the relationship between high temperatures and soil dryness and the presence of more frequent and longer lasting high-pressure systems in summer that suppress rainfall and deflect storms away from our area.

Hayhoe points to Texas' 2010-2013 drought as a probable sign of things to come. Although this drought occurred naturally, as a result of a strong La Niña event that typically brings dry conditions to our area, it was exacerbated by extreme heat. That event created severe hay shortages for cattle farmers and led some ranchers to prematurely slaughter their herds or export them out of state.

"Cotton can be drought-resistant, but not cattle," said Hayhoe.

The 2015 UTA study predicts a reduction in soil moisture of 10% to 15% in all seasons by 2050, which can also lead to cracked pavement and the premature loss of roads, railways, and other infrastructure.

Heat and drought also pose a problem for drinking water supplies, which North Texas sources from surface reservoirs that will be increasingly prone to evaporation. Hayhoe says some water managers are considering pumping the reservoirs underground during exceptionally hot and dry conditions, or covering them with polymer "blankets."

The blankets are an invisible layer of organic molecules that can help reduce evaporation.

Floods

While it's not likely that annual precipitation totals will change in North Texas, rainfall patterns likely will. Hayhoe and Nielsen-Gammon both say we will likely see enhanced "feast or famine" cycles with torrential rainstorms in the spring followed by longer than usual dry periods.

These predictions carry a high degree of certainty, because climatologists have already recorded this trend playing out.

"Rainfall becoming more extreme is something we expect because we've observed this not just in North Texas but throughout the United States, and models consistently predict it will continue to happen," said Nielsen-Gammon.

Severe rainstorms, the UTA scientists predict, will have the capacity to flood highway exit and service roads in the Federal Emergency Management Agency (FEMA) 100-year floodplain.

"While the state highway system was built above flooding levels, the connector roads may be easily flooded," said Arne Winguth, a climate scientist at UTA who co-authored the report.

Tornadoes and hail

Two events climate scientists cannot reliably project are hailstorms and tornadoes. "A lot of the things we care about are too small-scale to predict with more confidence," said Nielsen-Gammon. "The historical record is not large enough for longer-term forecasts."

There is some evidence that tornadoes, like rainstorms, are becoming more concentrated on fewer days and that their season has become less predictable.

The same is true with hail. "One thing we expect to happen with a warming climate is that the average humidity in the lower atmosphere may decrease, and if that happens it's easier for hail to stay frozen," said Nielsen-Gammon. "That factor might increase hailstorms, but that's just one of many factors that do affect hail."

Economy

Jina of the University of Chicago predicted in his study that climate change would decrease Dallas County's annual income by 10% to 20% in the coming decades unless emissions are reduced. "North Texas is one of the worst-affected places in the country," he said. Much of the loss comes from higher mortality rates, soaring air-conditioning costs, and reduced labor productivity.

To track labor productivity, Jina and his colleagues examined national time-use surveys, diaries kept by thousands of volunteers across the country, and compared them with local weather data. He found that on extremely hot days, people tended to stop working about 30 minutes early.

"There's direct evidence that people concentrate less well, make more mistakes and their brain just functions less efficiently if it's too hot," he said. Heat also disrupts sleep. "The general lack of productivity leads to them saying, 'No more work today.'"

The good news is that many climate-change effects are manageable. They do require local and federal authorities to plan ahead and take action, said Smith of the National Oceanic and Atmospheric Administration.

"It is important," he said, "to address where we build, how we build and also to build protections for populations already exposed in vulnerable areas."¹²

All participating jurisdictions are experiencing the effects of climate variability.

¹² Climate change to bring North Texas longer droughts, heavy rains, 120-degree temps within 25 years. Kuchment, Anna. 2018, February 15. <<https://www.dallasnews.com/news/climate-change-1/2018/02/15/climate-change-to-bring-texas-longer-droughts-heavy-rains-120-temps-august-within-25-years>>

Population Increase and Demographics

The entire planning areas of the participating jurisdictions, including their populations, are vulnerable to the damaging effects of most of the natural hazards identified. The 2030 population projections produced by the North Central Texas Council of Governments (NCTCOG) use the year 2000 as a base year and project population and employment in five-year increments to 2030. Over the 30-year horizon, the 16-county North Texas region is anticipated to add 1.6 million households with a corresponding 4.1 million people and 2.3 million non-construction jobs. This represents an average annual population growth rate of 2.6% for these 30 years, a magnitude of growth never before experienced in the North Central Texas region. NCTCOG forecasts reflect only one set of growth assumptions. If circumstances change, real growth outcomes might be considerably different.¹³

Population growth and distribution, especially increased population density and urbanization, increases vulnerability to disasters.¹⁴ The elderly, very young, those without air conditioning or heating, and outdoor laborers are most at risk to the effects of extreme heat and winter storms. Residents living in a floodplain are most at risk to flooding and residents living in the Wildland-Urban Interface (WUI) are most at risk to wildfires. Those living in poverty and in homes not built using enhanced building codes are most susceptible to the damages of these hazards.

The following table reflects the **estimated** changes in participating jurisdictions' demographics, gathered by the North Central Texas Council of Governments, since the adoption of the 2015 HazMAP. Caddo Mills, Greenville, and Quinlan ISD were not in the 2015 HazMAP. Population estimates for Hunt County refers to the entire county, not just the unincorporated portion.

Jurisdiction	2012 Population Estimate	2015 Population Estimate	2019 Population Estimate
Caddo Mills*	1,350	1,430	1,500
Commerce	8,100	8,200	8,330
Greenville*	26,200	26,250	27,600
Lone Oak	---	---	665
Quinlan	---	---	1,526
Quinlan ISD*	---	---	---
West Tawakoni	1,590	1,600	1,620
Wolfe City	1,410	1,420	1,420
Hunt County	88,850	92,530	97,410

Source: North Central Texas Regional Data Center, US Census.

In the context of emergencies, vulnerable groups may include individuals with disabilities, pregnant women, children, elderly persons, prisoners, certain members of ethnic minorities, people with language barriers, and the impoverished. For these populations, emergency response failures can have catastrophic consequences, including loss of the ability to work or live independently, permanent injury, and death.

¹³ North Texas to 2030: Extending the Trends. Vision North Texas.

¹⁴ Ben Wisner et al., *At Risk: Natural Hazards, People's Vulnerability, and Disasters*, 2d ed. (London: Routledge, 2004).

Without appropriate preparation, vulnerable individuals may not be able to evacuate as instructed, reach points of distribution for medical countermeasures, understand written or verbal communications during an emergency, or find suitable housing if their residences are destroyed during a disaster.

The community profiles of the participating jurisdictions are identified in the following table. Note that the US Census did not have all data for jurisdiction with a population less than 5,000. The Hunt County column of numbers includes all jurisdictions (not just participating jurisdictions) and the unincorporated portion of the county.

Community Profile								
Topic	Caddo Mills	Commerce	Greenville	Lone Oak	Quinlan	West Tawakoni	Wolfe City	Hunt County
Persons under 5 years (%)	Unknown	5.2%	8.0%	Unknown	Unknown	Unknown	Unknown	6.5%
Persons 65 years and over (%)	Unknown	10.6%	13.4%	Unknown	Unknown	Unknown	Unknown	15.8%
Language other than English spoken at home (%)	Unknown	17.2%	21.7%	Unknown	Unknown	Unknown	Unknown	14.0%
With a disability, under age 65 (%)	Unknown	11.6%	10.0%	Unknown	Unknown	Unknown	Unknown	11.2%
Persons without health insurance, under age 65 (%)	10.8%	22.2%	21.1%	19.0%	15.5%	22.2%	16.3%	18.7%
Persons in poverty (%)	16.8%	44.9%	23.6%	10.2%	27.0%	28.3%	13.6%	16.9%
Median household income	\$60,921	\$22,429	\$41,978	\$53,750	\$39,688	\$33,643	\$41,500	\$49,319
Total housing units	643	2,934	Unknown	340	662	1,050	667	37,377

Community Profile								
Topic	Caddo Mills	Commerce	Greenville	Lone Oak	Quinlan	West Tawakoni	Wolfe City	Hunt County
Median housing value	\$135,000	\$76,500	\$90,400	\$63,600	\$77,800	\$55,300	\$72,500	\$105,000
Percent of households with a broadband Internet subscription	72.8%	65.0%	72.2%	68.2%	64.3%	54.9%	66.5%	70.4%

Source: US Census Bureau Quick Facts, www.census.gov.

New technologies that provide 9-1-1 and public safety officials with the ability to proactively engage the community have had a dramatic effect on mortality rates during these increasing amounts and strength of natural disasters. Identifying at risk populations and providing them with information and assistance when they most need it can make a significant difference, especially in the event of an evacuation or seeking shelter. One measure of the strength of a community's response and recovery system is its attentiveness to its most vulnerable citizens. It is a cruel fact: disasters discriminate.

Repetitive Loss Properties

Among the National Flood Insurance Policy (NFIP) policyholders are thousands whose properties have flooded multiple times. Called "repetitive loss properties," these are buildings and/or contents for which the NFIP has paid at least two claims of more than \$1,000 in any 10-year period since 1978. "Severe repetitive loss properties" are those for which the program has either made at least four payments for buildings and/or contents of more than \$5,000 or at least two building-only payments that exceeded the value of the property.

These two kinds of properties are the biggest draw on the NFIP Fund. They not only increase the NFIP's annual losses and the need for borrowing; but they drain funds needed to prepare for catastrophic events. Community leaders and residents should also be concerned with the Repetitive Loss problem because residents' lives are disrupted and may be threatened by the continual flooding.

The primary objective of identifying these properties is to eliminate or reduce the damage to property and the disruption to life caused by repeated flooding of the same properties.

The following table reflects the loss statistics for repetitive loss properties in participating jurisdictions.

Loss Statistics: from January 1, 1978 through report as of September 30, 2018					
Jurisdiction	Total Losses	Closed Losses	Open Losses	Closed Without Payment (CWOP) Losses	Total Payments
Caddo Mills	-	-	-	-	-
Commerce	3	2	0	1	\$9,277.77
Greenville	16	11	0	5	\$129,394.40
Lone Oak	Not a Participant				
Quinlan	-	-	-	-	-
Quinlan ISD	Not a Participant				
West Tawakoni	-	-	-	-	-
Wolfe City	Not a Participant				
Hunt County	37	31	0	6	\$1,144,032.66
Total losses: All losses submitted regardless of the status.					
Closed losses: Losses that have been paid.					
Open losses: Losses that have not been paid in full.					
CWOP losses: Losses that have been closed without payment.					
Total Payments: Total amount paid on losses.					

Source: Claim Information by State, <https://bsa.nfipstat.fema.gov/reports/1040.htm#48>.

The tables below provide information about the repetitive loss and severe repetitive loss properties within the participating jurisdictions as of March 2019, as provided by the Federal Emergency Management Agency. More details about the properties are not available to the public.

Property Details									
Community Number	Mitigated?	Insured?	City	Flood Zone	Occupancy	Total Building Payment	Total Contents Payment	Losses	Total Paid
480366	Yes	No	Commerce	A	Single Family	\$8,273.17	\$1,004.60	2	\$9,277.77
485473	No	Yes	Greenville	X	Single Family	\$17,734.62	\$266.41	2	\$18,001.03
480363	No	Yes	Wolfe City	A	Single Family	\$80,819.85	\$-	2	\$80,819.85
480363	No	Yes	Greenville	X	Single Family	\$199,233.68	\$43,132.79	4	\$24,2366.47

New Development

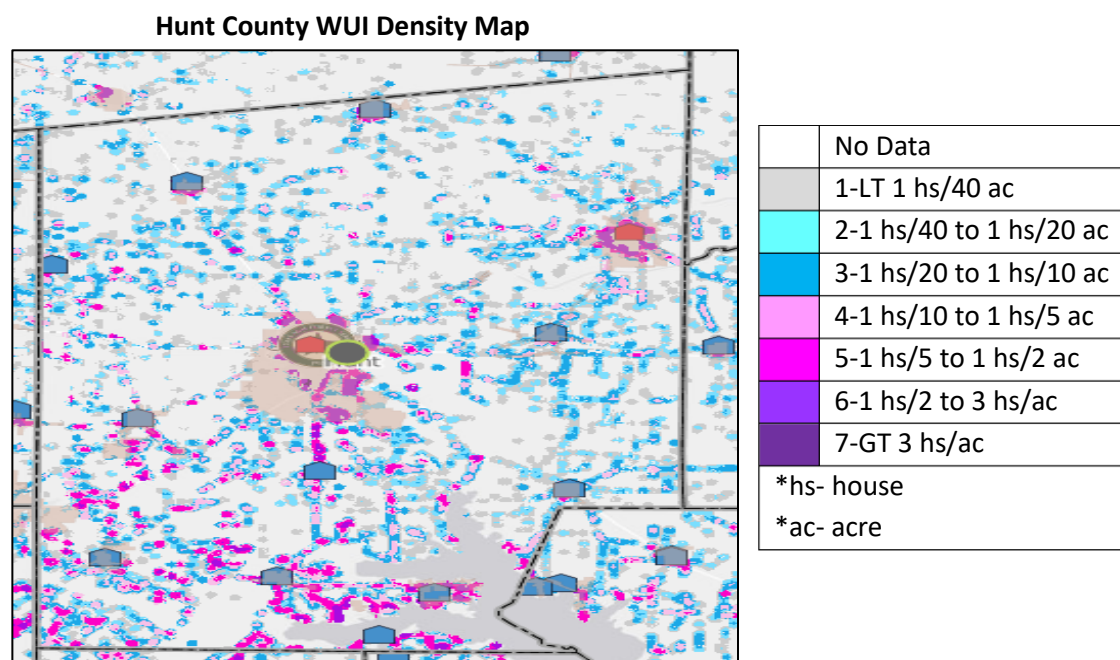
Unsustainable development is one of the major factors in the rising costs of natural disasters. Many mitigation design strategies and technologies serve double duty, by not only preventing or reducing disaster losses but serving the broader goal of long-term community sustainability. For example, land use regulations prohibiting development in flood-prone areas may also help preserve the natural and beneficial functions of floodplains. New development in hazard-prone areas increases the risk of damage and injury from that hazard. Only the City of Commerce identified new developments in potentially hazard-prone areas:

- **Commerce-** Building of new KLZ Stone (60,000 square foot facility) on Industrial Drive. Expansion of Hydro Aluminum plant completed in 2018 (\$10,000,000.00 expansion).

Wildland-Urban Interface

The Wildland-Urban Interface (WUI) layer of a map reflects housing density depicting where humans and their structures meet or intermix with wildland fuels. Wildfires can cause significant damage to property and threatens the lives of people who are unable to evacuate WUI areas. All improved property, critical facilities, and critical structures and infrastructure located in these wildfire-prone areas are considered vulnerable and can be exposed to this hazard.

The following map reflects the WUI areas in Hunt County, with the locations of fire stations. The paid fire departments are marked in red and volunteer fire departments are marked in blue.



Source: Texas Wildfire Risk Assessment Portal Professional Viewer.

Map for Reference



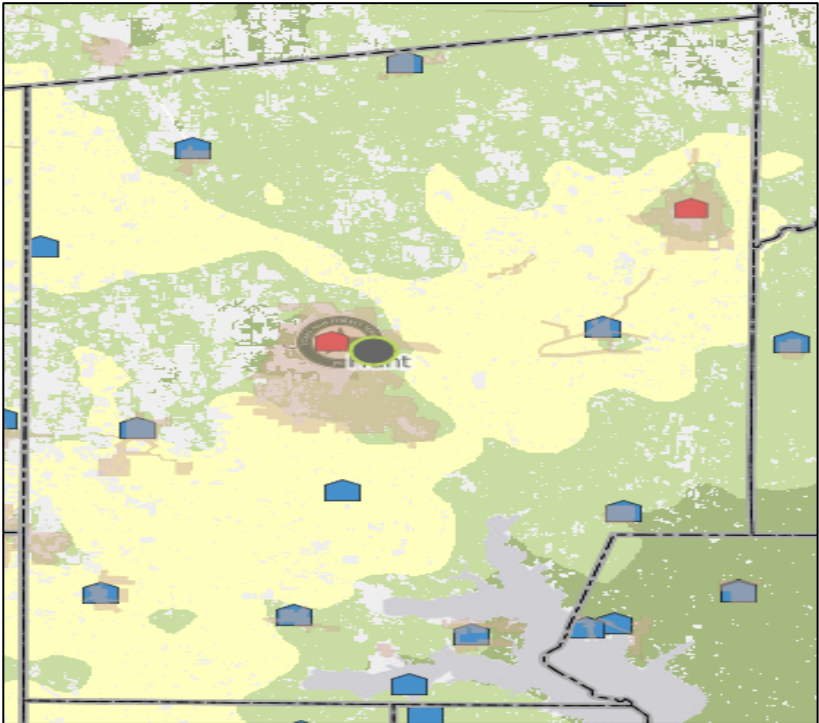
WUI housing density is categorized based on the standard Federal Register and United States Forest Service (USFS) Silvis data set categories. The number of housing density categories is extended to provide a better gradation of housing distribution to meet specific requirements of the states for their fire protection planning activities. While units of the data set are in houses per square kilometer, which is consistent with other data such as USFS SILVIS, the data is presented as the number of houses per acre to aid with interpretation and use in Texas.

Wildfire Threat is the likelihood of a wildfire occurring or burning into an area. Threat is derived by combining a number of landscape characteristics including surface and canopy fuels, resultant fire behavior, historical fire occurrence, percentile weather derived from historical weather observations, and terrain conditions. These inputs are combined using analysis techniques based on established fire science.

The measure of wildfire threat used in the Texas Wildfire Risk Assessment (TWRA) is based on the Wildland Fire Susceptibility Index (WFSI). WFSI combines the probability of an acre igniting (Wildfire Ignition Density), and the expected final fire size based on rate of spread in four percentile weather categories. WFSI is defined as the likelihood of an acre burning.

The following map shows the threat level of wildfires in Hunt County, with the locations of fire stations. The paid fire departments are marked in red and volunteer fire departments are marked in blue.

Hunt County Wildfire Threat Map



	No Data
	1-Low
	2
	3-Moderate
	4
	5-High
	6
	7-Very High

Source: Texas Wildfire Risk Assessment Portal Professional Viewer.

Map for Reference



Hunt County © Texas Almanac

3.4.6 Factors that Decrease Vulnerability

Factors that decrease vulnerability to hazards include the mitigation actions that have previously been implemented, the adoption of new codes and policies, and the participation in regional projects sponsored by the North Central Texas Council of Governments (NCTCOG) and other governing agencies.

Local Mitigation Activities

The participating jurisdictions have implemented a variety of mitigation actions to protect their communities from damaging disasters. These previous mitigation actions are described in detail in Chapter 4.

National Policy

On October 5, 2018, President Trump signed the [Disaster Recovery Reform Act of 2018](#) (DRRA) into law as part of the [Federal Aviation Administration Reauthorization Act of 2018](#). These reforms acknowledge the shared responsibility of disaster response and recovery, aim to reduce the complexity of FEMA and build the nation's capacity for the next catastrophic event. The law contains more than 50 provisions that require FEMA policy or regulation changes for full implementation, as they amend the [Robert T. Stafford Disaster Relief and Emergency Assistance Act](#). It has yet to be seen how the DRRA will be implemented and how it will impact state and local agencies, but highlights from the DRRA include:

Highlights from the DRRA include:

- **Greater investment in mitigation, before a disaster:** Authorizing the National Public Infrastructure Pre-Disaster Hazard Mitigation Grant Program, which will be funded through the Disaster Relief Fund as a six percent set aside from disaster expenses.
 - This program will focus on funding public infrastructure projects that increase community resilience before a disaster occurs.
 - Previously, funding for pre-disaster mitigation grants relied on congressional appropriations which varied from year to year. Now, with a reliable stream of sufficient funding, communities will be able to plan and execute mitigation programs to reduce disaster risk nationwide.
 - According to a 2017 National Institute of Building Sciences report, the nation saves six dollars in future disaster costs for every one dollar invested in mitigation activities.
- **Reducing risk from future disasters after fire:** Providing hazard mitigation grant funding in areas that received Fire Management Assistance Grants as a result of wildfire. Adding fourteen new mitigation project types associated with wildfires and windstorms.
- **Increasing state capacity to manage disaster recovery:** Allowing for higher rates of reimbursement to state, local and tribal partners for their administrative costs when implementing public assistance (12 percent) and hazard mitigation projects (15 percent).

Additionally, the legislation provides flexibility for states and tribes to administer their own post-disaster housing missions, while encouraging the development of disaster housing strategies.

- States, tribes, territories and local governments bear significant administrative costs implementing disaster recovery programs. Often these costs can be high and substantially burdensome for the impacted entity to meet. Increasing the funding for administrative costs will enable faster, more effective delivery of vital recovery programs to communities.
- State and tribal officials have the best understanding of the temporary housing needs for survivors in their communities. This provision incentivizes innovation, cost containment and prudent management by providing general eligibility requirements while allowing them the flexibility to design their own programs.
- **Providing greater flexibility to survivors with disabilities:** Increasing the amount of assistance available to individuals and households affected by disasters, including allowing accessibility repairs for people with disabilities, without counting those repairs against their maximum disaster assistance grant award.
- **Retaining skilled response and recovery personnel:** Authorizing FEMA to appoint certain types of temporary employees who have been with the agency for three continuous years to full time positions in the same manner as federal employees with competitive status. This allows the agency to retain and promote talented, experienced emergency managers.

National Flood Insurance Program



The National Flood Insurance Program (NFIP) aims to reduce the impact of flooding on private and public structures. It does so by providing affordable insurance to property owners, renters and businesses and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures. Overall, the program reduces the socio-economic impact of disasters by promoting the purchase and retention

of general risk insurance, but also of flood insurance, specifically. When a community participates in the NFIP, it participates in one of two phases: the Emergency Program or the Regular Program.

Emergency Program: Entry-level participation phase.

- Limited coverage
- Flat rates
- Basic Flood Hazard Boundary Map (FHBM)*

**Initial flood hazard identification*

Regular Program: Most participating communities are in this phase.

- Full participation
- Detailed Flood Insurance Rate Map (FIRM)
- NFIP's full limits of insurance

The City of Lone Oak, Quinlan ISD, and Wolfe City are not participants in the NFIP. An appropriate mitigation action for Lone Oak and Wolfe City to join NFIP is included in this plan. The following table includes the NFIP status of the participating jurisdictions.

Community Name	CID	County	Initial FHBM Identified	Initial FIRM Identified	Current Effective Map Date	Reg-Emer Date	Tribal
Caddo Mills	480364#	Hunt	06/28/74	09/04/91	01/06/12(M)	03/06/08	No
Commerce	480366#	Hunt	03/08/74	03/02/81	01/06/12	03/02/81	No
Greenville	485473#	Hunt		08/17/71	01/06/12	08/13/71	No
Quinlan	480370#	Hunt	04/16/76	09/04/91	01/06/12	05/10/10	No
West Tawakoni	480371#	Hunt	04/16/76	09/04/91	01/06/12(M)	03/03/14	No
Hunt County	480363#	Hunt	08/22/78	09/04/91	01/06/12	09/04/91	No
CID: A different community identification number is assigned for the incorporated city versus the unincorporated county.							
Community Name: The incorporated city or unincorporated county, parish, or borough.							
County: This column should match the relative incorporated city, township, village, or other entity.							
Init FHBM Identified: This date tells when the Flood Hazard Boundary Map was created. This map is only a factor in communities that do not have a Flood Insurance Rate Map.							
Init FIRM Identified: This date represents the community's first Flood Insurance Rate Map, and it is important because it represents the dividing line between two building categories called Pre-FIRM and Post-FIRM.							
Current Effective Map Date: This is the date of the map currently in effect.							
Reg-Emer Date: The date the community first joined the NFIP. An "E" next to the date indicates that the community is in the Emergency Program and subject to limited coverage. If there is no "E" next to the date, then the community participates in the Regular Program.							
Tribal: A "yes" in this column indicates that the participating community is a tribal nation.							
NSFHA: A 'Non-Special Flood Hazard Area' is an area that is in a moderate-to-low risk flood zone (Zones B, C, X Pre- and Post-FIRM)							

Source: FEMA Community Status Book Report, <http://www.fema.gov/cis/TX.html>.

Jurisdictions participating in NFIP will continue to comply with NFIP through the relevant mitigation actions listed in this plan. All participating jurisdictions have a necessary action. Jurisdictions participating in the NFIP are required to regulate any development in designated flood prone areas. In Hunt County, all work within a Federal Emergency Management Agency (FEMA) designated floodplain requires a floodplain permit.

A property owner is required to obtain a floodplain permit prior to performing any type of work in the floodplain, including the placement of fill. For example, the following documentation is necessary to apply for a Development Permit in the Hunt County Floodplain in the unincorporated portion of the county:

- Site Plan: Must be drawn to scale showing the existing and proposed structures, surface improvements, property lines, streets, slope of land, floodway and floodplain boundaries, and any watercourses.
- Elevation Data: May be in the form of topographic contour lines or spot elevations on the site plan or the base flood elevation and proposed lowest floor elevation on the building design plans.
- No-Rise Certificate: Is required for any development within a floodway. This document must be completed by a registered professional engineer and be based upon hydraulic and hydrologic studies.
- Flood-proofing Certificate: In the case of a non-residential structure that is to be flood-proofed; pre and post-construction certification from a registered professional engineer or architect that the flood-proofing method meets NFIP criteria.
- Complete the Development Permit Application.
- Pay the applicable fee.

A permit will only be issued after it is determined that the proposed work will not have an adverse impact on adjacent property owners, will not decrease the flood carrying capacity of the watercourse, and will not create a situation that is dangerous during flooding events.¹⁵

The NFIP offers three Standard Flood Insurance Policy forms: Dwelling, General Property, and Residential Condominium Building Association. These forms provide policyholders with a description of their coverage and other important coverage information. Below is a table of the local policy statistics.

Policy Statistics as of 09/30/2018			
Jurisdiction	Policies In-force	Insurance In-force (whole \$)	Written Premium In-force
Caddo Mills	6	\$1,512,000	\$1,931
Commerce	10	\$2,735,000	\$4,530
Greenville	83	\$28,310,300	\$75,560
Quinlan	2	\$350,000	\$2,058
West Tawakoni	2	\$280,000	\$786
Hunt County	148	\$36,829,300	\$95,161

Source: FEMA Policy Statistics Country-Wide, <https://bsa.nfipstat.fema.gov/reports/1011.htm>.

Community Rating System

The Community Rating System (CRS) is a voluntary program for communities that participate in the National Flood Insurance Program (NFIP). The goals of the CRS are to reduce flood damages to insurable property, strengthen and support the insurance aspects of the NFIP, and encourage a comprehensive approach to floodplain management. The CRS has been developed to provide incentives in the form of

¹⁵ Floodplain Development Requirements. Hunt County Texas.
< <https://parkercountytx.com/131/Floodplain-Development-Requirements>>

premium discounts for communities to go beyond the minimum floodplain management requirements to develop extra measures to provide protection from flooding. For a community to be eligible, it must be in full compliance with the NFIP.

All communities start out with a Class 10 rating, which provides no discount. There are 10 CRS classes: Class 1 requires the most credit points and gives the greatest premium discount; Class 10 identifies a community that does not apply for the CRS or does not obtain a minimum number of credit points and receives no discount. There are 18 activities recognized as measures for eliminating exposure to floods. Credit points are assigned to each activity. The activities are organized under 4 main categories:

- Public Information
- Mapping and Regulation
- Flood Damage Reduction
- Flood Preparedness

Premium discounts ranging from 5% to a maximum of 45% are applied to eligible policies written in a community as recognition of the floodplain management activities instituted.

All CRS communities must maintain completed FEMA elevation and floodproofing certificates for all new and substantially improved construction in the Special Flood Hazard Area (SFHA) after the date of application for CRS classification. These certificates must be available upon request. Therefore, in writing a policy, an agent/producer should be able to get these certificates from any CRS community. In addition, some CRS communities receive credit for having completed certificates for Post-Flood Insurance Rate Map (FIRM) buildings constructed prior to the CRS application date. If they do receive this credit, these certificates should also be available to agents/producers writing flood insurance.

According to the [April 2018 NFIP Flood Insurance Manual](#), there are no CRS communities amongst the participating jurisdictions in this hazard mitigation action plan.

The following table describes NFIP compliance within the participating jurisdictions.

NFIP Topic	Source of Information
How many structures are exposed to flood risk within the community?	Community Floodplain Administrator (FPA)
Caddo Mills- Approximately 5 structures	
Commerce- Unknown	
Greenville- 135 structures	
Quinlan- 11 structures	
West Tawakoni- Unknown	
Hunt County- Approximately 50-75 structures	
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA and FEMA Insurance Specialist
Caddo Mills- None	
Commerce- Unknown	

Greenville- None	
Quinlan- Unknown	
West Tawakoni- None	
Hunt County- None	
Is the Community FPA or NFIP Coordinator certified?	Community FPA
Caddo Mills- No	
Commerce- Unknown	
Greenville- No	
Quinlan- No	
West Tawakoni- No	
Hunt County- No	
Is floodplain management an auxiliary function?	Community FPA
Caddo Mills- Yes	
Commerce- Yes	
Greenville- Yes	
Quinlan- Yes	
West Tawakoni- Yes	
Hunt County- Yes	
Provide an explanation of NFIP administration services (e.g. permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA
Caddo Mills- Permits and zoning	
Commerce- Permits and zoning	
Greenville- Permit review	
Quinlan- Permit review, GIS, inspections, and engineering capability	
West Tawakoni- Permit review, education, and inspections	
Hunt County- Permit review, education, and inspections	
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA
Caddo Mills- None	
Commerce- None	
Greenville- None	
Quinlan- None	
West Tawakoni- Contact with County	
Hunt County- None	
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records
Caddo Mills- Yes	
Commerce- Yes	
Greenville- Yes	
Quinlan- Yes	
West Tawakoni- Yes	

Hunt County- Yes	
Are there any outstanding compliance issues (i.e. current violations)?	State NFIP Coordinator, FEMA NFIP Specialist, community records
Caddo Mills- No	
Commerce- No	
Greenville- No	
Quinlan- No	
West Tawakoni- No	
Hunt County- No	
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	State NFIP Coordinator, FEMA NFIP Specialist, community records
Caddo Mills- Unknown	
Commerce- Unknown	
Greenville- Unknown	
Quinlan- Unknown	
West Tawakoni- Unknown	
Hunt County- Unknown	
Is a CAV or CAC scheduled or needed?	State NFIP Coordinator, FEMA NFIP Specialist, community records
Caddo Mills- No	
Commerce- No	
Greenville- No	
Quinlan- No	
West Tawakoni- No	
Hunt County- No	
Are the FIRMs digital or paper?	Community FPA
Caddo Mills- Both	
Commerce- Both	
Greenville- Digital	
Quinlan- Both	
West Tawakoni- Both	
Hunt County- Both	
Do floodplain development regulations meet or exceed FEMA or state minimum requirements? If so, in what ways?	Community FPA
Caddo Mills- Yes; developers are not allowed to build in the floodplain	
Commerce- Yes	
Greenville- Yes. The city meets the FEMA regulations by having no new construction allowed in floodplain areas, but construction is allowed in those areas that can be reclaimed from the floodplain. The city uses a natural floodway in addition to the regulatory floodway established by FEMA in managing the floodplains of the city.	
Quinlan- Yes	

West Tawakoni- Yes; 2-foot minimum elevation above base flood elevation.	
Hunt County- Yes; 2-foot minimum elevation above base flood elevation.	
Provide an explanation of the permitting process.	Community FPA, State, FEMA NFIP
Caddo Mills- City code and ordinance forbid development in the 100-year floodplain	
Commerce- The city follows floodplain ordinance requirements.	
Greenville- Development requests come to the Community Development Department and is reviewed by the engineering division of Public Works and by the FPA. When development is proposed within Flood Zones A or AE, the developer is directed to hire an engineer to show how flood plain might be reclaimed. If deemed reasonable, the developer is directed to submit to FEMA for Letters of Map Amendment or Revision. If approved, then development may occur.	
Quinlan- The city follows floodplain ordinance requirements.	
West Tawakoni- Property is identified as either in or out of floodplain based on “development permit” submitted. If in floodplain, development of structures requires elevation certification (pre and post).	
Hunt County- Property is identified as either in or out of floodplain based on “development permit” submitted. If in floodplain, development of structures requires elevation certification (pre and post).	

3.4.7 Greatest Vulnerabilities

Below is a list of the participating jurisdictions greatest vulnerabilities in relation to natural hazards.

Caddo Mills	<ul style="list-style-type: none"> Any substantial event would be devastating to the financial capabilities of the city There is no building strong enough to withstand tornadoes or strong winds
Commerce	<ul style="list-style-type: none"> Any substantial event would overwhelm jurisdiction capabilities
Greenville	<ul style="list-style-type: none"> Any substantial event would overwhelm jurisdiction capabilities
Lone Oak	<ul style="list-style-type: none"> Any major hazard would affect the jurisdiction City has no backup capabilities City has no shelters at all for safety
Quinlan	<ul style="list-style-type: none"> Evacuation route is not efficient City would be quickly overwhelmed during a disaster There is no fire department Lack of tornado shelters No warning system Emergency communications are poor Residential homes are over 50+ yrs old There is no backup power There is no swift water rescue The city has weak response capabilities There is no hazmat response teams
Quinlan ISD	<ul style="list-style-type: none"> Limited tornado & evacuation capability Lack of available shelter There is no early warning system There is no backup power at facilities

West Tawakoni	<ul style="list-style-type: none"> • Lake Tawakoni is highly vulnerable to flooding and drought, impacting residents • Water Treatment facility is vulnerable to disasters
Wolfe City	<ul style="list-style-type: none"> • Any substantial event would overwhelm jurisdiction capabilities
Hunt County	<ul style="list-style-type: none"> • Any substantial event would overwhelm jurisdiction capabilities

3.5 Historical Events

This section shows historical events and damage for the following natural hazards in Hunt County since the 2015 HazMAP:

- Drought
- Earthquakes
- Expansive Soils
- Extreme Heat
- Flooding (including dam failure)
- Thunderstorms (including hail, wind, and lightning)
- Tornadoes
- Wildfires
- Winter Storms

Weather Events

The following tables identify the weather events (drought, extreme heat, flooding, thunderstorms, tornadoes, and winter storms), captured by the National Weather Service (NWS), that have occurred from 2012-2018 in the participating jurisdictions or the Hunt County Zone. Damages are recorded in \$US.

The National Centers for Environmental Information (NCEI) receives storm data from the NWS. The NWS receives their information from a variety of sources, which include but are not limited to: county, state and federal emergency management officials, local law enforcement officials, SkyWarn spotters, NWS damage surveys, newspaper clipping services, the insurance industry, and the general public, among others. NWS Storm Data are geographically categorized by county or by NWS Forecast Zone. Localized events such as a tornado, thunderstorm winds, flash floods, and hail are categorized using the *Hunt Co.* (County) designation. More widespread events that can impact the entire county equally, such as heat, cold, drought, floods, and winter weather, are categorized using the *Hunt (Zone)*.

There have been no NWS reports of extreme heat within the participating jurisdictions.

Due to the climate variability and increasing populations, it is expected that the same level of damage experienced in the past will occur in the future, if not more, for each event.

The following abbreviations from the column headings for all weather tables are explained below:

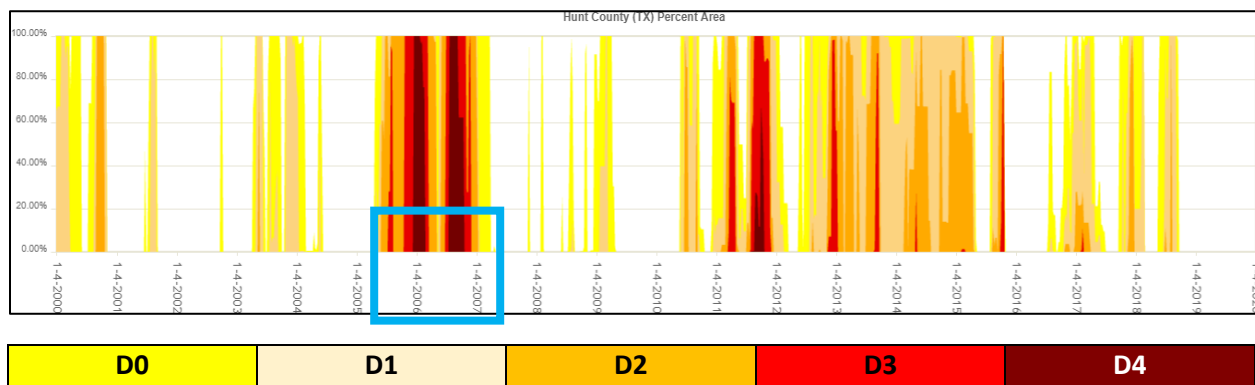
‘Mag’: Magnitude, **‘Dth’**: Deaths, **‘Inj’**: Injuries, **‘PrD’**: Property Damage (\$), **‘CrD’**: Crop Damage (\$)

The following weather events are listed in alphabetical order.

Drought									
Location	County/Zone	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
HUNT (ZONE)	HUNT (ZONE)	1/1/2013	00:00	Drought		0	0	0.00K	3.00K
HUNT (ZONE)	HUNT (ZONE)	2/1/2013	00:00	Drought		0	0	0.00K	2.00K
HUNT (ZONE)	HUNT (ZONE)	3/1/2013	00:00	Drought		0	0	2.00K	0.00K
HUNT (ZONE)	HUNT (ZONE)	4/1/2013	00:00	Drought		0	0	0.00K	2.00K
HUNT (ZONE)	HUNT (ZONE)	5/14/2013	00:00	Drought		0	0	0.00K	3.00K
HUNT (ZONE)	HUNT (ZONE)	7/9/2013	00:00	Drought		0	0	0.00K	1.00K
HUNT (ZONE)	HUNT (ZONE)	8/1/2013	00:00	Drought		0	0	0.00K	3.00K
HUNT (ZONE)	HUNT (ZONE)	9/1/2013	00:00	Drought		0	0	0.00K	3.00K
HUNT (ZONE)	HUNT (ZONE)	2/25/2014	00:00	Drought		0	0	0.00K	1.00K
HUNT (ZONE)	HUNT (ZONE)	3/1/2014	00:00	Drought		0	0	0.00K	4.00K
HUNT (ZONE)	HUNT (ZONE)	4/1/2014	00:00	Drought		0	0	0.00K	2.00K
HUNT (ZONE)	HUNT (ZONE)	5/1/2014	00:00	Drought		0	0	0.00K	1.00K
HUNT (ZONE)	HUNT (ZONE)	6/1/2014	00:00	Drought		0	0	0.00K	1.00K
HUNT (ZONE)	HUNT (ZONE)	7/1/2014	00:00	Drought		0	0	0.00K	5.00K
HUNT (ZONE)	HUNT (ZONE)	9/28/2014	00:00	Drought		0	0	0.00K	0.00K
HUNT (ZONE)	HUNT (ZONE)	10/1/2014	00:00	Drought		0	0	0.00K	0.50K
HUNT (ZONE)	HUNT (ZONE)	11/25/2014	00:00	Drought		0	0	0.00K	0.50K
HUNT (ZONE)	HUNT (ZONE)	12/1/2014	00:00	Drought		0	0	0.00K	5.00K
HUNT (ZONE)	HUNT (ZONE)	1/1/2015	00:00	Drought		0	0	0.00K	0.50K
HUNT (ZONE)	HUNT (ZONE)	2/1/2015	00:00	Drought		0	0	0.00K	2.00K
HUNT (ZONE)	HUNT (ZONE)	4/1/2015	00:00	Drought		0	0	0.00K	1.00K
HUNT (ZONE)	HUNT (ZONE)	9/1/2015	00:00	Drought		0	0	0.00K	0.50K
HUNT (ZONE)	HUNT (ZONE)	10/1/2015	00:00	Drought		0	0	2.00K	0.00K
HUNT (ZONE)	HUNT (ZONE)	1/1/2017	00:00	Drought		0	0	0.00K	0.00K
HUNT (ZONE)	HUNT (ZONE)	11/21/2017	00:00	Drought		0	0	0.00K	0.00K
HUNT (ZONE)	HUNT (ZONE)	12/1/2017	00:00	Drought		0	0	0.00K	1.00K
HUNT (ZONE)	HUNT (ZONE)	8/1/2018	00:00	Drought		0	0	0.00K	1.00K
Totals:						0	0	4.00K	43.00K

Source: [NOAA National Centers for Environmental Information](#)

During these times the value of cattle decreased dramatically due to low cattle weight caused by drought impact on feed lots. Cattle had to be shipped to Oklahoma and farmers had to buy hay to feed cattle instead of growing it themselves. Water levels are a critical concern during this time. The following chart reflects the annual changes in drought conditions.



Source: United States Drought Monitor.

As shown in the Percent Area graph above, the time period from 2006-2007 had the greatest severity and longest time period of D3-D4 drought conditions. Besides major crop damage, these extreme drought conditions have the potential to put Hunt County in extreme fire danger and could cause widespread water shortage and restrictions, creating a water emergency.

Flood										
Location	County/Zone	Date	Time	Type	Mag	Dth	Inj	PrD	CrD	
CADDO MILLS	HUNT CO.	06/21/2015	10:40	Flash Flood		0	0	8.00K	0.00K	
COMMERCE	HUNT CO.	10/23/2015	11:18	Flash Flood		0	0	10.00K	0.00K	
Totals:						0	0	18.00K	0.00K	

Source: [NOAA National Centers for Environmental Information](#)

Flooding led to major road closures. The flood reports at the National Weather Service involved roads and vehicles.

Thunderstorm										
Location	County/Zone	Date	Time	Type	Mag	Dth	Inj	PrD	CrD	
COMMERCE	HUNT CO.	04/03/2014	19:30	Hail	1.75 in.	0	0	90.00K	0.00K	
COMMERCE	HUNT CO.	10/06/2014	03:57	Hail	0.75 in.	0	0	0.00K	0.00K	
LONE OAK	HUNT CO.	04/18/2015	21:10	Hail	1.00 in.	0	0	0.00K	0.00K	
CADDO MILLS	HUNT CO.	03/23/2016	22:23	Hail	0.88 in.	0	0	0.00K	0.00K	
GREENVILLE	HUNT CO.	03/23/2016	22:30	Hail	0.88 in.	0	0	0.00K	0.00K	
GREENVILLE	HUNT CO.	05/29/2019	13:25	Hail	0.75 in.	0	0	0.00K	0.00K	
GREENVILLE	HUNT CO.	05/24/2020	14:49	Hail	1.00 in.	0	0	0.00K	0.00K	

Thunderstorm

Location	County/Zone	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
QUINLAN	HUNT CO.	04/11/2016	17:40	Hail	1.75 in.	0	0	300.00K	0.00K
QUINLAN	HUNT CO.	10/20/2019	21:59	Hail	0.88 in.	0	0	0.00K	0.00K
WOLFE CITY	HUNT CO.	03/26/2017	21:00	Hail	0.75 in.	0	0	0.00K	0.00K
CADDO MILLS	HUNT CO.	04/21/2017	20:44	Hail	1.75 in.	0	0	1.00K	0.00K
COMMERCE	HUNT CO.	04/26/2017	06:10	Hail	1.00 in.	0	0	0.00K	0.00K
COMMERCE	HUNT CO.	04/29/2017	16:17	Hail	1.00 in.	0	0	0.00K	0.00K
CADDO MILLS	HUNT CO.	04/29/2017	17:08	Hail	0.75 in.	0	0	0.00K	0.00K
QUINLAN	HUNT CO.	05/28/2017	14:30	Hail	1.00 in.	0	0	0.00K	0.00K
LONE OAK	HUNT CO.	11/30/2018	23:07	Hail	1.25 in.	0	0	0.00K	0.00K
GREENVILLE	HUNT CO.	05/29/2019	13:45	Thunderstorm Wind	48 kts. EG	0	0	5.00K	0.00K
QUINLAN	HUNT CO.	01/29/2013	17:20	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
CADDO MILLS	HUNT CO.	05/21/2013	14:45	Thunderstorm Wind	60 kts. EG	0	0	100.00K	0.00K
QUINLAN	HUNT CO.	10/02/2014	16:05	Thunderstorm Wind	50 kts. EG	0	0	1.00K	0.00K
COMMERCE	HUNT CO.	10/02/2014	16:10	Thunderstorm Wind	50 kts. EG	0	0	5.00K	0.00K
COMMERCE	HUNT CO.	11/17/2015	05:43	Thunderstorm Wind	55 kts. EG	0	0	10.00K	0.00K
COMMERCE	HUNT CO.	04/28/2020	22:33	Thunderstorm Wind	48 kts. EG	0	0	1.00K	0.00K
QUINLAN	HUNT CO.	11/30/2018	23:12	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
QUINLAN	HUNT CO.	11/30/2018	23:13	Thunderstorm Wind	52 kts. MG	0	0	0.00K	0.00K
Totals:						0	0	423.00K	0.00K
In.: Inch									
Kts.: knots									
EG: Estimated Gusts									

Source: [NOAA National Centers for Environmental Information](#)

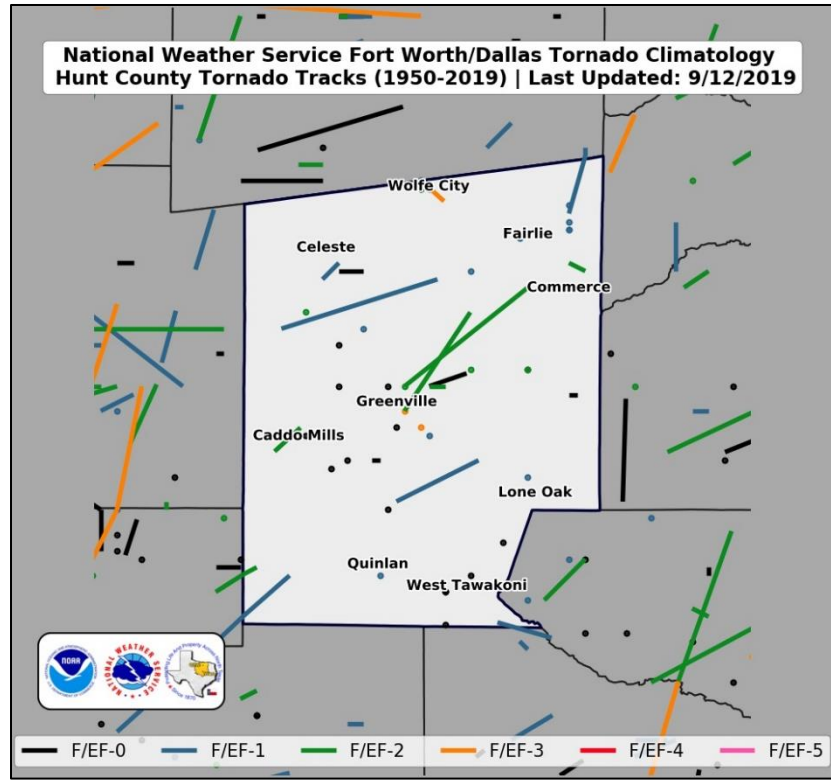
Property was damaged by wind and hail. No lightning events were reported.

Tornado

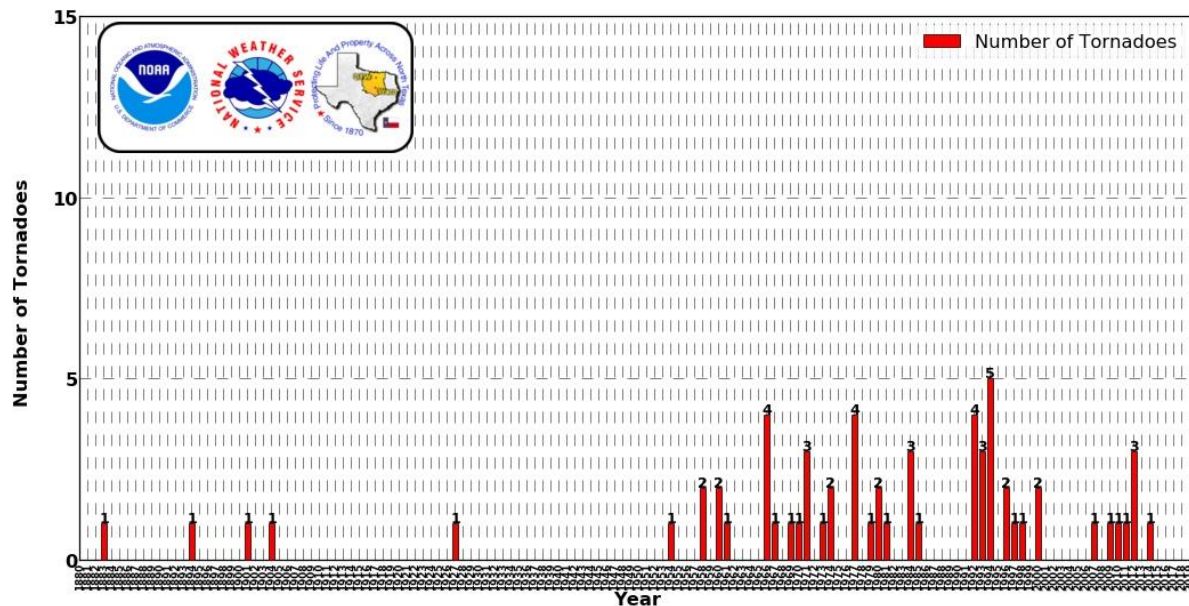
Location	County/Zone	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
Totals:						0	0	0.00K	0.00K

Source: [NOAA National Centers for Environmental Information](#)

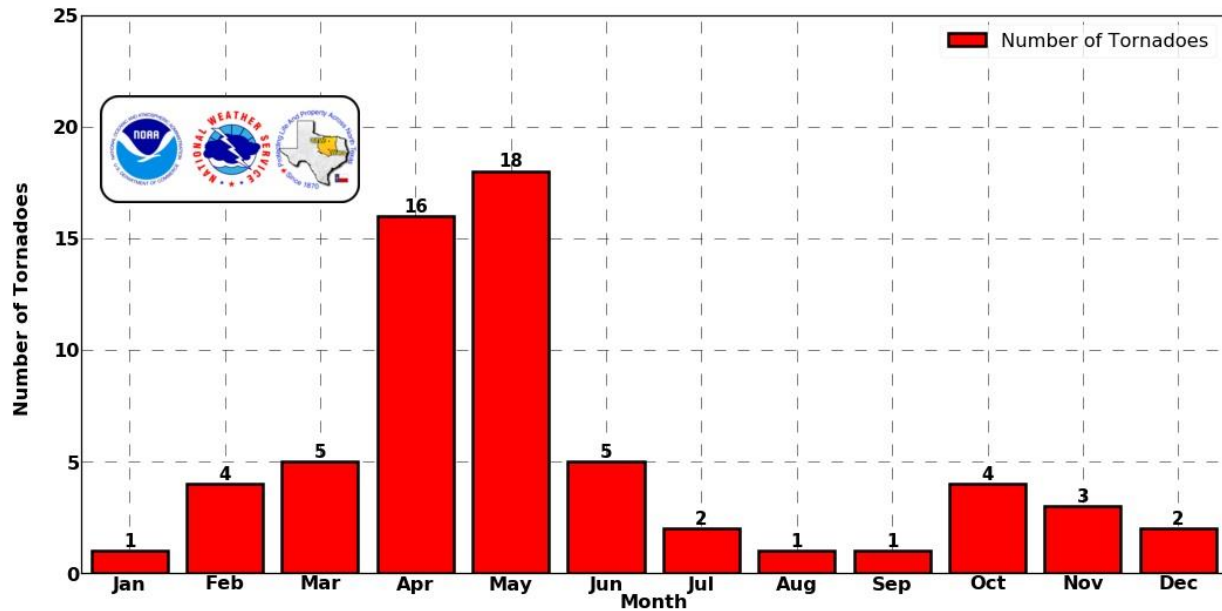
Despite not having any tornadoes occur in the participating jurisdictions during this time frame, tornadoes have occurred in the past. The following map and charts are from the National Weather Service (NWS) Fort Worth [Hunt County Climatology Page, 1950-2019](#). They reflect historical data related to tornadoes in Hunt County.



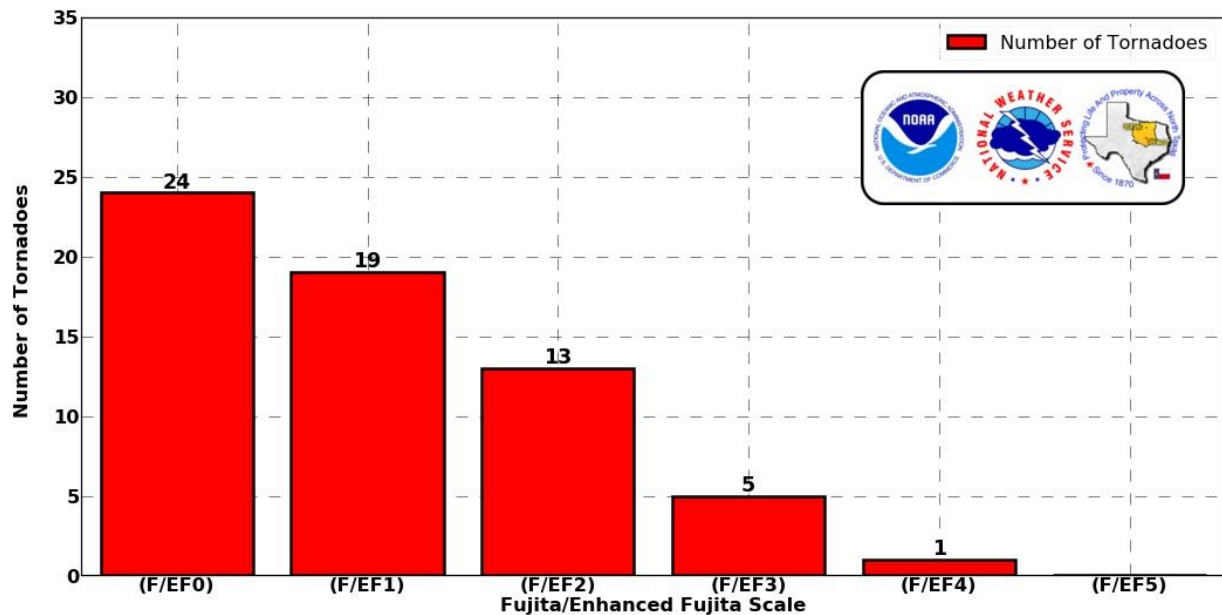
Number of Tornadoes by Year for Hunt County
Data: 1880-2019 || Tornado Total: 62
NWS Fort Worth, TX || Last Updated: 9/12/2019



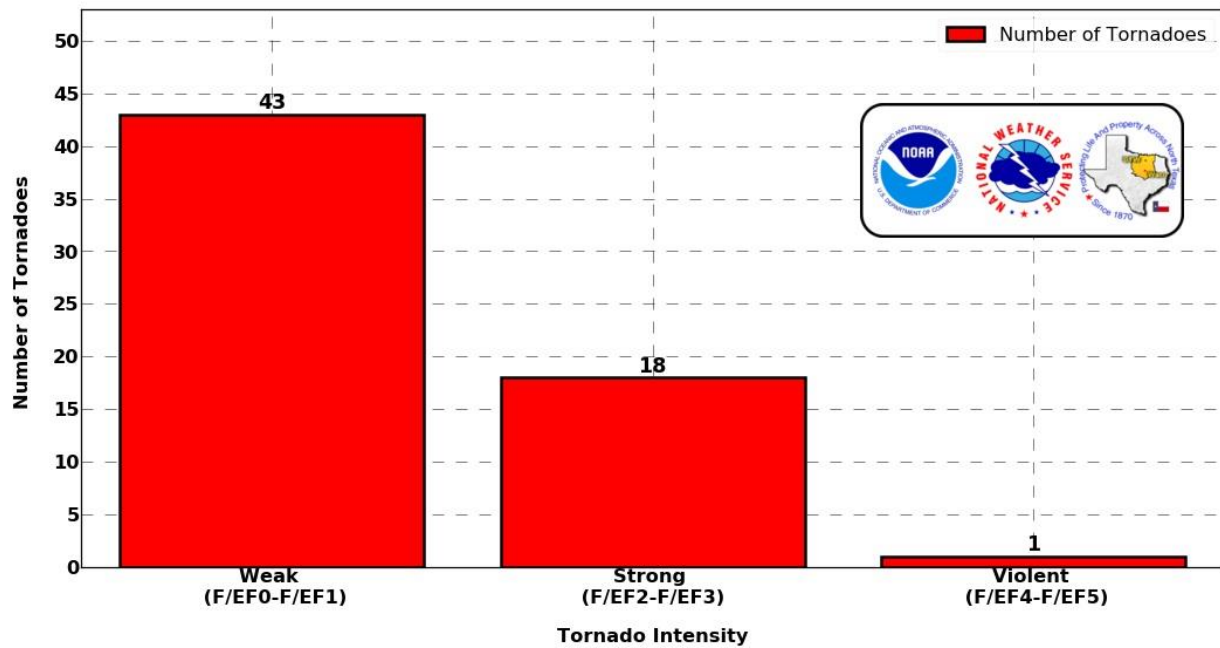
Number of Tornadoes by Month for Hunt County
 Data: 1880-2019 || Tornado Total: 62
 NWS Fort Worth, TX || Last Updated: 9/12/2019



Number of Tornadoes by Rating for Hunt County
 Data: 1880-2019 || Tornado Total: 62
 NWS Fort Worth, TX || Last Updated: 9/12/2019



Number of Tornadoes by Intensity for Hunt County
Data: 1880-2019 || Tornado Total: 62
NWS Fort Worth, TX || Last Updated: 9/12/2019



Winter Storm

Location	County/Zone	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
HUNT (ZONE)	HUNT (ZONE)	12/05/2013	21:00	Winter Storm		0	0	400.00K	0.00K
HUNT (ZONE)	HUNT (ZONE)	02/23/2015	06:10	Winter Storm		0	0	6.00K	0.00K
HUNT (ZONE)	HUNT (ZONE)	12/31/2017	11:00	Winter Weather		0	0	10.00K	0.00K
HUNT (ZONE)	HUNT (ZONE)	02/11/2018	23:30	Winter Weather		0	0	0.00K	0.00K
Totals:						0	0	416.00K	0.00K

Source: [NOAA National Centers for Environmental Information](#)

During the 2013 storm, up to 1-inch of ice and sleet accumulated in Hunt County. Several traffic accidents occurred on the icy streets and numerous tree branches broke due to the weight of the ice. Some of the falling branches damaged buildings and cars. Some power lines also snapped due to the weight of the ice. A 3-vehicle accident on the Two-Mile Bridge over Lake Tawakoni resulted in 3 hospital transports and closed the bridge for some time.

The following article highlights the severe impacts of winter weather in North Central Texas and Hunt County. Although this article describes a 2013 storm, it also describes what Hunt County could experience again.

National Weather Service: North Texas Snowfall Events

December 5-6, 2013

A winter storm affected much of North and Central Texas for an extended period from December 5th through the 10th. A combination of freezing rain, sleet, and a little snow began falling during the day on the 5th and continued through the morning hours of the 6th. As the ice and sleet settled on the 6th, a thick layer of ice paralyzed most of the area north of a line from Goldthwaite to Cleburne to Ennis to Sulphur Springs. In this area, accumulations of sleet and ice measured up to 5" with the highest amounts from Denton to Sherman to Bonham.

Temperatures remained below freezing until the 9th and 10th resulting in a prolonged winter event. Most residents were forced to remain at home for several days. A new term, coined "cobblestone ice," was used to describe the condition of the ice on the interstates and highways due to the compaction of ice and sleet.



NBC 5 News captured "cobblestone ice" on North Texas roads

South of this area, lighter amounts of icing occurred producing mainly icy bridges, overpasses, and elevated surfaces. As a result of the ice storm, significant tree damage occurred with thousands of tree branches falling under the weight of the ice. Power lines were also brought down, and at the peak of the storm, 275,000 customers were without power in the North Texas region. Most schools, especially in the hardest hit areas, were closed for several days. Some businesses were forced to close for a day or two also. Hundreds of injuries were reported due to falls on the ice but exact numbers were not available. Seven fatalities occurred during this event; 4 in vehicles, 2 from exposure, and 1 from a fall on the ice. Early estimates from the insurance council estimated \$30 million in residential insured losses. The estimate did not include damage to vehicles or roads. Many roads and bridges were damaged from the ice and/or from attempts by Texas Department of Transportation to remove the ice using plows and graders. Hundreds of people and semi-trucks were stranded for long periods on many of the main highways and interstates including I-35 from Fort Worth to the Oklahoma border and Interstate 20 from Fort Worth going west. The clean-up from this event took weeks and even a few months in some places.¹⁶

Though there has not been a major winter event recorded since this 2013 example, a severe winter storm happening in the next five years cannot be ruled out, as weather patterns have been evolving along with the change in climate, as mentioned earlier.

¹⁶ North Texas Snowfall Events 2013-1879, National Weather Service.
<<https://www.weather.gov/fwd/snowevents>>

Not all events have been reported to NWS, as some participants have experienced damage from various hazard events not listed above. Based on the information in the chart above, participating jurisdictions in Hunt County can expect a similar occurrence of events and level of damage over the next five years.

Geographic Events

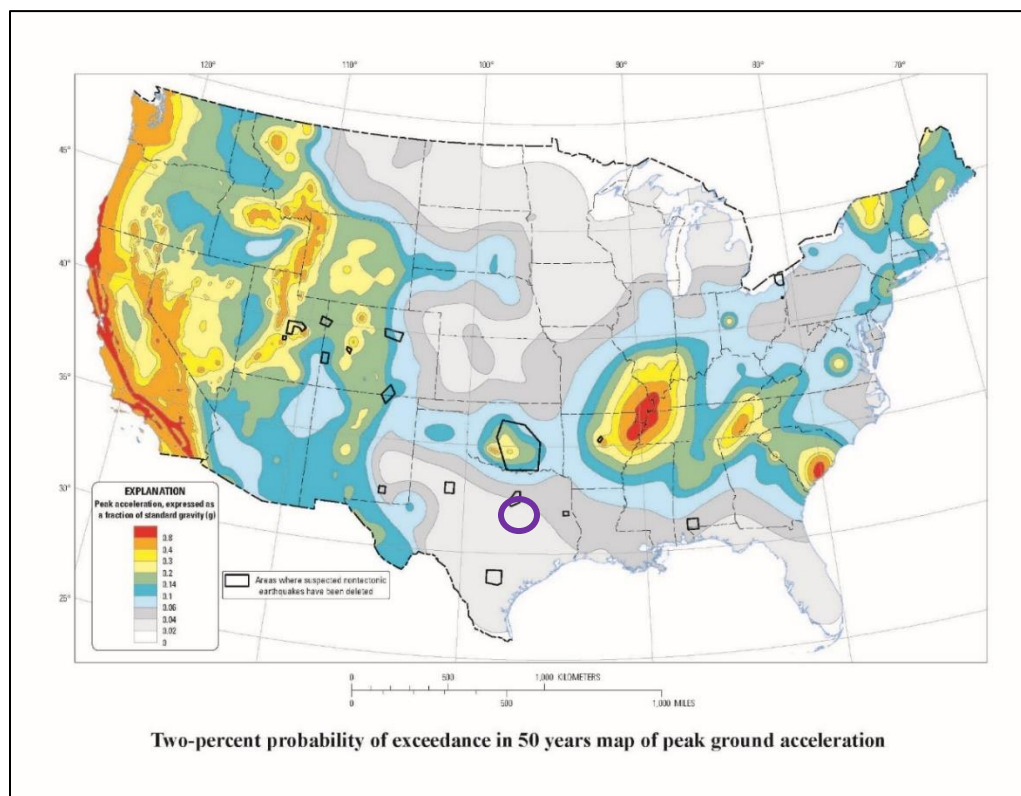
The following data reflects past geographic events that have occurred within the participating jurisdictions. **According to the best information available, there is no history of dam failure in Palo Pinto County and the participating jurisdictions. Expansive soils damage has not been formally documented, though damage has slowly occurred over time.**

Earthquakes

The number of earthquake events in Hunt County varies by source of information. The [TexNet Earthquake Catalog](#) website developed and run in 2017 by the University of Texas at Austin's Bureau of Economic Geology provides the most precise near real-time information available about earthquakes across Texas. According to their data, no earthquakes have been reported in Hunt County since 2017. Based on this information, the chances of a future earthquake are low.

Along with TexNet, the [United States Geological Survey \(USGS\)](#) confirmed that no earthquakes have occurred in Hunt County since 2012.

Hunt County has a very low risk to future earthquakes, as shown in the following map.



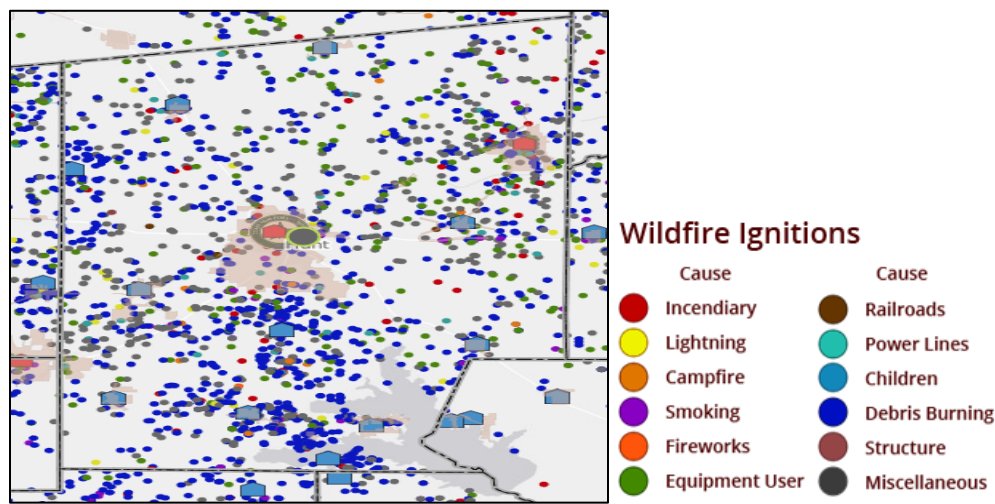
Source: [USGS](#)

Wildfires

Below is a list of wildfire damage across Hunt County, according to Texas A&M Forest Service records.

Year	County	Agency	Fires	Acres
2012	Hunt	TX A&M Forest Service	14	272
2012	Hunt	Fire Departments	376	1,435
2013	Hunt	TX A&M Forest Service	12	389
2013	Hunt	Fire Departments	244	415
2014	Hunt	TX A&M Forest Service	13	251
2014	Hunt	Fire Departments	100	299
2015	Hunt	TX A&M Forest Service	9	211
2015	Hunt	Fire Departments	77	745
2016	Hunt	TX A&M Forest Service	11	117
2016	Hunt	Fire Departments	235	690
2017	Hunt	TX A&M Forest Service	15	435
2017	Hunt	Fire Departments	170	936
2018	Hunt	TX A&M Forest Service	8	181
2018	Hunt	Fire Departments	97	228
2019	Hunt	Fire Departments	2	11

The following Wildfire Ignitions dataset from the Texas A&M Forest Service (TFS) shows the point location of all fires in Hunt County from 2005 – 2015. The date range is set by TFS. The fires are symbolized by the cause of the fire. The wildfire occurrence database was obtained from state and local fire department report data sources for the years 2005 to 2015. The local category includes fires reported via Texas A&M Forest Service online fire department reporting system. It is a voluntary reporting system that includes fires reported by both paid and volunteer fire departments since 2005. The compiled fire occurrence database was cleaned to remove duplicate records and to correct inaccurate locations. More detailed maps, per jurisdiction, are located in Appendix A.



Source: [Texas A&M Forest Service](#)

3.6 Hazard Summary

Each participating jurisdiction described the location, probability of a future event, and the maximum probable extent of each hazard. The following terms were used to describe the categories:

Location: Location is the geographic area within the planning area that is affected by the hazard, such as a floodplain. The entire planning area may be uniformly affected by some hazards, such as drought or winter storm, while only portions of the planning area may be affected by others, like wildfires. The planning area refers to individual jurisdictions. Planning area refers to the size of the participating jurisdiction providing the description.

- **Negligible-** Less than 10% of planning area would be impacted by a single event.
- **Limited-** 10 to 25% of planning area would be impacted by a single event.
- **Significant-** 26 to 99% of planning area would be impacted by a single event.
- **Extensive-** 100% of planning area would be impacted by a single event, or the event has no boundary and could occur anywhere within the planning area.

Probability of Future Events: This information was based on historic events and changing climate.

- **Unlikely-** Less than 1% annual probability.
- **Possible-** Between 1 and 10% annual probability.
- **Likely-** Between 10 and 100% annual probability.
- **Highly Likely-** 100% annual probability.

Level of Possible Damage: Based on historic events and future probability.

- **Minor-** Only minor property damage and minimal disruption of life. Temporary shutdown of critical facilities. Very few injuries, if any.
- **Limited-** More than 10% of property in affected area damaged/destroyed. Complete shutdown of critical facilities for more than one day. Minor injuries possible.
- **Critical-** More than 25% of property in affected area damaged/destroyed. Complete shutdown of critical facilities for more than one week. Multiple deaths/injuries.
- **Catastrophic-** More than 50% of property in affected area damaged/destroyed. Complete shutdown of critical facilities for 30 days or more. High number of deaths/injuries possible.

Maximum Probable Extent: Based on historic events and future probability.

- **Minor-** Minor classification on the scientific scale.
- **Medium-** Medium classification on the scientific scale.
- **Major-** Major classification on the scientific scale.

Extent Scale			
Hazard	Classification		
	Minor	Medium	Major
Drought	PDSI -1.99 to +1.99 D0	PDSI -2.00 to -2.99 D1	PDSI -3.00 to -5.00 D2-D4
Earthquake	Magnitude < 4.9	Magnitude 5.0-6.9	Magnitude > 7.0

Extent Scale			
Hazard	Classification		
	Minor	Medium	Major
Expansive Soils	EI Expansion Potential: 21-50 (Low) EI Expansion Potential: 0-21 (Very Low)	EI Expansion Potential: 51-90 (Medium)	EI Expansion Potential: 91-130 (High) EI Expansion Potential: >130 (Very High)
Extreme Heat	Heat Index 80F°-96F° with 40% humidity	Heat Index 97F°-104F° with 40% humidity	Heat Index >105F° with 40% humidity
Flooding	Within 100yr Flood Zone, Zone AE, A < 10 feet of water	Within 500yr Flood Zone, Zone X 10-25 feet of water	Extending Beyond 100yr and 500yr Flood Zones, Zone A, AE, X > 25 feet of water
Flooding from Dam Failure	< 20% of critical facilities in the inundation zone; Dam Storage capacity less than 10,000 acre-feet	20-50% of critical facilities in the inundation zone; Dam Storage capacity between 10,000 and 100,000 acre- feet	> 50% of critical facilities in the inundation zone; Dam Storage capacity 100,000 acre-feet or more
Thunderstorm	Hail 0"-1.6" Wind Knots <1-10 LAL: 1-2	Hail 1.6"-2.4" Wind Knots 11-27 LAL: 3-4	Hail 2.4"->4" Wind Knots 28-64+ LAL: 5-6
Tornado	EF0	EF1-EF2	EF3-EF5
Wildfire	KBDI 0-300	KBDI 300-500	KBDI 500-800
Winter Storms	Temperatures 40F° to 35F° Wind Speed <25 MPH Ice Accumulation <.50 inches	Temperatures 30F° to 20F° Wind Speed 25-35 MPH Ice Accumulation .10-1.00 inches	Temperatures 15F° to -45F° Wind Speed >35 MPH Ice Accumulation >.25 inches
Abbreviations:			
PDSI: Palmer Drought (Severity) Index			
EI: Expansion Index test			
LAL: Lightning Activity Level			
EF: Enhanced Fujita scale			
KBDI: Keetch-Byram Drought Index			

Below are the hazard summaries, in alphabetical order, for each participating jurisdiction.

Drought				
Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Caddo Mills	Extensive	Highly Likely	Limited	Major
Commerce	Extensive	Likely	Minor	Major
Greenville	Extensive	Likely	Limited	Medium
Lone Oak	Extensive	Likely	Minor	Medium
Quinlan	Extensive	Likely	Minor	Major
Quinlan ISD	Extensive	Likely	Minor	Major
West Tawakoni	Extensive	Highly Likely	Limited	Major
Wolfe City	Extensive	Highly Likely	Limited	Major
Hunt County	Extensive	Highly Likely	Limited	Major

Potential impacts from drought include:

- Property damage
- Loss of water supply
- Increases grassfire potential and intensity
- Negative impact on citizens, to include water restrictions and lack of drinkable water supply
- Impact on car washes, parks, and pools
- Impact on crops, livestock, and natural vegetation
- Increase in food prices
- Dust storms, leading to transportation accidents
- Natural environments damage, to include protected species and critical habitats
- Pipeline damage

Source of groundwater or surface-supply:
Caddo Mills- City of Greenville Commerce- City of West Tawakoni Greenville- Lake Tawakoni Lone Oak- Special Utility District Quinlan- North Texas Municipal Water District (NTMWD) and private wells Quinlan ISD- City of Quinlan and private wells West Tawakoni- Lake Tawakoni and private wells Wolfe City- Private wells Hunt County- Private wells
Describe the type of water restrictions the jurisdiction enforces, either year-round or during a drought:
Caddo Mills- Follow the City of Greenville restrictions. Commerce- The Drought Contingency Plan limits use of water by citizens during designated drought. Greenville- The city has water restrictions in place during times of drought. Lone Oak- Lawn watering is limited to night. Quinlan- Drought Contingency Plan modeled after NTMWD Quinlan ISD- Follow the City of Quinlan's Drought Contingency Plan

Source of groundwater or surface-supply:**West Tawakoni-** City follows Sabine River Authority standards.**Wolfe City-** None**Hunt County-** None**Earthquake**

Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Caddo Mills	Extensive	Unlikely	Minor	Minor
Commerce	Extensive	Unlikely	Minor	Minor
Greenville	Extensive	Unlikely	Minor	Minor
Lone Oak	Extensive	Unlikely	Minor	Minor
Quinlan	Extensive	Unlikely	Limited	Minor
Quinlan ISD	Extensive	Unlikely	Limited	Minor
West Tawakoni	Extensive	Unlikely	Limited	Minor
Wolfe City	Extensive	Unlikely	Limited	Minor
Hunt County	Extensive	Unlikely	Limited	Minor

Potential impacts from earthquakes include:

- Injury or death
- Property and infrastructure damage
- Water contamination or loss via broken pipes
- Transportation and communication disruption or damage
- Increase in traffic accidents
- Building collapse
- Natural gas leak
- Misplaced residents
- Power outages
- Natural environments damage, to include protected species and critical habitats

Does your jurisdiction require a permit for foundation repairs? Reviewing permits can help a jurisdiction determine the amount of damage in the community.

Caddo Mills- No**Commerce-** Yes**Greenville-** No**Lone Oak-** Yes**Quinlan-** Permits are only required for pier & beam structures.**Quinlan ISD-** Permits are only required for pier & beam structures.**West Tawakoni-** Yes**Wolfe City-** No**Hunt County-** No

Expansive Soils				
Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Caddo Mills	Extensive	Limited	Minor	Minor
Commerce	Extensive	Limited	Minor	Minor
Greenville	Extensive	Likely	Minor	Minor
Lone Oak	Extensive	Highly Likely	Critical	Medium
Quinlan	Extensive	Highly Likely	Minor	Medium
Quinlan ISD	Extensive	Highly Likely	Minor	Medium
West Tawakoni	Extensive	Limited	Minor	Minor
Wolfe City	Extensive	Limited	Minor	Minor
Hunt County	Extensive	Limited	Minor	Minor

Potential impacts from expansive soils include:

- Property damage due to foundation damage
- Water contamination or loss via broken pipes
- Building and infrastructure damage
- Road damage
- Transportation delays due to road condition
- Damage to utility lines
- Damage to crops and livestock

Extreme Heat				
Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Caddo Mills	Extensive	Highly Likely	Limited	Major
Commerce	Extensive	Likely	Minor	Medium
Greenville	Extensive	Likely	Minor	Minor
Lone Oak	Extensive	Highly Likely	Critical	Medium
Quinlan	Extensive	Highly Likely	Minor	Medium
Quinlan ISD	Extensive	Highly Likely	Minor	Medium
West Tawakoni	Extensive	Highly Likely	Limited	Major
Wolfe City	Extensive	Highly Likely	Limited	Major
Hunt County	Extensive	Highly Likely	Limited	Major

Potential impacts from extreme heat include:

- Heatstroke or death. Elderly people who cannot afford air conditioning are at greatest risk
- Property damage
- Loss of water supply
- Increases grassfire potential and intensity
- Impact on logistics
- Power outages
- Road and train track buckling

- Disruption in critical infrastructure operations
- Vehicle engine failure
- Damage to crops

What special events or sporting events are held outside during the summer?

Caddo Mills- None

Commerce- Parks & Recreation Department and University sporting events.

Greenville- Youth and Adult Sports, July 4th Festival, Labor Day Parade, Farmers Market, and Rally Around Greenville Event.

Lone Oak- Baseball, softball, and 4th of July activities.

Quinlan- Football games

Quinlan ISD- Football games

West Tawakoni- Hand-fishing events and football games

Wolfe City- None

Hunt County- None

How many extreme heat exposures have been reported since 2012 at these events?

Caddo Mills- None

Commerce- Multiple

Greenville- Unknown

Lone Oak- Unknown

Quinlan- Unknown

Quinlan ISD- Unknown

West Tawakoni- Unknown

Wolfe City- Unknown

Hunt County- 1

Flooding

Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Caddo Mills	Extensive	Highly Likely	Limited	Major
Commerce	Extensive	Likely	Critical	Minor
Greenville	Extensive	Possible	Limited	Medium
Lone Oak	Extensive	Likely	Limited	Minor
Quinlan	Extensive	Unlikely	Minor	Minor
Quinlan ISD	Extensive	Unlikely	Minor	Minor
West Tawakoni	Extensive	Highly Likely	Limited	Major
Wolfe City	Extensive	Highly Likely	Limited	Major
Hunt County	Extensive	Highly Likely	Limited	Major

Flooding can occur anywhere with low-lying areas, clogged drains, and/or intense rain. Potential impacts from flooding include:

- Loss of electricity

- Loss of, or contamination of, water supply
- Loss of property
- Structure and infrastructure damage – flooded structures and eroded roads
- Misplaced residents
- Snakes migrate and number of mosquitoes increase
- Fire – as a result of loss of water supply
- Debris in transportation paths
- Emergency response delays
- Disruption of traffic can lead to impacts to the economy
- Natural environment damage, to include protected species and critical habitats

Common flooding hazards within the planning area include flood hazards from flash flooding, dam failure, and new development. Flooding from dam failure have never occurred nor is it predicted to occur in the next 5 years. Floodwater can disguise many dangerous obstacles, like uncovered manholes or debris that can cause someone to fall over. Standing water, or water that isn't flowing, can also become a breeding ground for insects that can make people very ill. Another risk can be downed power lines which may still be live.

Considering population, economy, existing and future structures, improved property, critical facilities, critical infrastructure, and protected species, what is specifically vulnerable to flooding in your jurisdiction?

Caddo Mills- Homes near the floodplains.

Commerce- The animal shelter and multiple roads.

Greenville- There are a total of three critical structures within the 100-year floodplain.

Lone Oak- Residents living in the floodplain.

Quinlan Residents living in the floodplain.

Quinlan ISD- Bus routes are impacted by flash flooding.

West Tawakoni- Farmland in low areas and some FM roads are impacted by flooding.

Wolfe City- Farmland in low areas and some FM roads are impacted by flooding.

Hunt County- Farmland in low areas and some FM roads are impacted by flooding.

Describe future development that may be at risk to flooding based on current zoning maps.

Caddo Mills- N/A

Commerce- Mini-dorms on Pecan Street; potential development on Mangum Street/Harlow Road.

Greenville- None

Lone Oak- None

Quinlan- Possible residential neighborhood partially in floodplain.

Quinlan ISD- N/A

West Tawakoni- N/A

Wolfe City- Residential development

Hunt County- Residential development

What rivers, creeks, and/or lakes are in your jurisdiction?

Caddo Mills- Sabine River, Sulphur River

Commerce- Middle Sulphur River, South Sulphur River (Hwy 11, Hwy 24)

Greenville- Sabine River, City Reservoir

Lone Oak- Bull Creek, Lake Tawakoni, and Sabine River

Quinlan- Sabine and Caddo Creeks

Quinlan ISD- Caddo Creek, Sabine River, Lake Tawakoni, Young Creek, and Jones Creek

West Tawakoni- Sabine River, Sulphur River

Wolfe City- Sabine River, Sulphur River

Hunt County- Sabine River, Sulphur River

Which of these water sources have a history of flooding?

Caddo Mills- Sabine River

Commerce- Middle Sulphur River & South Sulphur River

Greenville- Sabine River

Lone Oak- Bull Creek and Sabine River

Quinlan- Sabine and Caddo Creeks

Quinlan ISD- Caddo Creek, Sabine River, and Jones Creek

West Tawakoni- Sabine River

Wolfe City- Sabine River

Hunt County- Sabine River

Name any streets or intersections that experience flooding or flash flooding:

Caddo Mills- Dixie Street, 1565, FM 36, FM 1903

Commerce- Maple Street and Park Street intersection

Greenville- Oneal Street, Jones Street, Hemphill Street, Bois D Arc Street, Wesley Street, Dalton Street, Gillespie Street, Walnut Street

Lone Oak- Numerous streets in the city.

Quinlan- None

Quinlan ISD- FM 751, Crazy Horse Addition, and FM 1565

West Tawakoni- None

Wolfe City- FM 1565, FM 36, and FM 118

Hunt County- FM 1565, FM 36, and FM 118

Identify low water crossings and whether they are bridges or vented/unvented fords:

Caddo Mills- Various unvented fords.

Commerce- Park Street, FM 3218, Hwy 11, and Charity Road Hwy 50 (at Business 24)

Greenville

Lone Oak- N/A

Quinlan- N/A

Quinlan ISD- N/A

West Tawakoni- N/A

Wolfe City- Various unvented fords.

Hunt County- Various unvented fords.

What critical facilities or infrastructure (airports, dams, water treatment facilities, wastewater treatment facilities, schools, hospitals, fire stations, and police stations) are located in the 100-year floodplain?

Caddo Mills- N/A

Commerce- Commerce Wastewater Treatment Plant

Greenville- Wastewater Treatment Plant, Library, and Water Treatment Plant

Lone Oak- Wastewater Treatment Facility

Quinlan- Wastewater Treatment Plant and Young lift station

Quinlan ISD- N/A

West Tawakoni- N/A

Wolfe City- Unknown

Hunt County- Unknown

In the event of a wildfire, will flooding and erosion be an issue in restoring destroyed forested slopes?

Caddo Mills- No

Commerce- No

Greenville- No

Lone Oak- No

Quinlan- No

Quinlan ISD- No

West Tawakoni- No

Wolfe City- No

Hunt County- No

Only the City of Greenville had existing data for the following table:

Jurisdiction	Source	Residential Parcels Located in 100-year Floodplain	Percentage of Total Residential Parcels Located in 100-year Floodplain	Commercial and Industrial Parcels in 100- year Floodplain	Percentage of Commercial and Industrial Parcels in 100- year Floodplain
Greenville	Floodplain Manager	726	>1%	87	2%

Flooding from Dam Failure

Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Caddo Mills	N/A	N/A	N/A	N/A
Commerce	N/A	N/A	N/A	N/A
Greenville	Negligible	Unlikely	Minor	Minor
Lone Oak	N/A	N/A	N/A	N/A
Quinlan	N/A	N/A	N/A	N/A

<i>Flooding from Dam Failure</i>				
Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Quinlan ISD	N/A	N/A	N/A	N/A
West Tawakoni	N/A	N/A	N/A	N/A
Wolfe City	N/A	N/A	N/A	N/A
Hunt County	N/A	N/A	N/A	N/A

Potential impacts from dam failure include:

- Property and crop damage
- Transportation delays
- Injury or death
- Train derailment

The hazard extent rating scale for dam failure is based on the amount of potential damage that can be caused by a failure. For the purposes of this hazard analysis, damage from dam failure only takes into account areas where developed property is affected.

Although dam failures have the potential to cause extensive damage, there has been no recorded failures in Hunt County, as a wide array of measures, including maintenance, are taken to ensure structural integrity. The United States Corps of Engineers (USACE) and the Texas Commission on Environmental Quality (TCEQ) have conducted extensive dam failure training for jurisdictional staff, reducing the impact of flooding from a dam failure to the jurisdictions. Jurisdictions have also worked with the private owners to ensure maintenance is enforced and regulated.

What dams in your jurisdiction would negatively affect the area if they failed (both within and outside your jurisdiction)?
Caddo Mills- None Commerce- None Greenville- Greenville Reservoir No. 1,2,3,4,5, & 6 Dams would impact the city Lone Oak- None Quinlan- None Quinlan ISD- None West Tawakoni- None Wolfe City- None Hunt County- None

The hazard classification of dams is not available to the public, per Homeland Security regulations. If specific information is needed, please contact the dam owner or the Dam Safety Section of the TCEQ.

According to USACE, there are 40 total dams within Hunt County: 75% of the dams are regulated by a state agency and 0% are regulated by a federal agency. The average age of the dams is 59 years old.

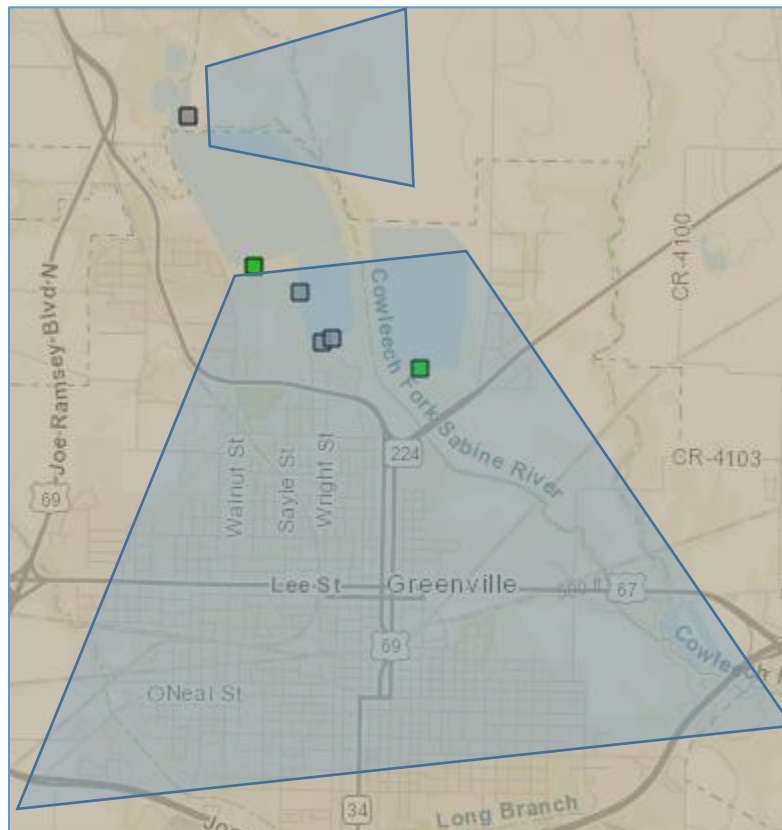
The following chart identifies the recorded discharge of the dams that were identified by the participants as a potential threat to their communities. Despite other dams being in the area, their failures would have no severe impact on people or property.

DAM_NAME	DAM_LENGTH	DAM_HEIGHT	MAX_DISCHARGE	MAX_STORAGE	DRAINAGE_AREA
GREENVILLE RESERVOIR NO 1 DAM	2200	13		116	
GREENVILLE RESERVOIR NO 2 DAM	3700	13		208	
GREENVILLE RESERVOIR NO 3 DAM	6400	20		880	
GREENVILLE RESERVOIR NO 4 DAM	13100	30	3591	4804	0.4
GREENVILLE RESERVOIR NO 5 DAM	11300	30	3591	4091	0.3
GREENVILLE RESERVOIR NO 6 DAM	1500	20	11300	702	

For dams with a maximum storage capacity of 100,000 acre-feet or more, all census blocks within five miles were considered to be at risk to potential dam failure hazards. For dams with a maximum storage capacity between 10,000 and 100,000 acre-feet, all census blocks within three miles were considered at risk to potential dam failure hazards. For dams with a maximum storage capacity of less than 10,000 acre-feet, all census blocks within one mile were considered to be at risk to potential dam failure hazards. Exact dam inundation maps are not available to the public- thus the following information is merely as estimation. For specific information, please contact the dam owners.

The following map shows the **estimated** inundation zones for the six (6) dams the jurisdictions identified as the most impactful to their communities.

Greenville Reservoir Dams



It is each dam owner's responsibility to ensure that their dam is in compliance with the Texas Commission on Environmental Quality's ¹⁷(TCEQ) regulations regarding emergency action plans. Additionally, each dam owner required to have an emergency action plan must know and be prepared to take the actions outlined in their emergency action plan, should their dam begin to fail.

Local emergency management is only responsible for the impact of flooding from dam failure on surrounding areas. The responsibility for maintaining a safe dam rests with its owner. Dam owners are also responsible for maintaining safety *at* and *around* their dam. Dam owners are the only ones who can directly maintain the dams and implement mitigation and safety measures on the structures.¹⁸

Responsible Parties	Dam Related Safety Activities
Dam Owners/Operators	<ul style="list-style-type: none"> • Identification of emergency at dam • Initial notifications • Implementation of repairs • Security and technical assistance on site
Local Emergency Management and Local Responders	<ul style="list-style-type: none"> • Public warning • Possible evacuation

¹⁷ <https://www.tceq.texas.gov/compliance/investigation/damsafetyprog.html> For the most up-to-date information, contact TCEQ directly.

¹⁸ <https://damsafety-prod.s3.amazonaws.com/s3fs-public/files/All%20-%20Dam%20Owner%20Fact%20Sheets%202019.pdf> Dam Ownership Fact Sheet. 2018.

Responsible Parties	Dam Related Safety Activities
	<ul style="list-style-type: none"> • Shelter plan activated • Rescue and recovery • State of Emergency declaration • Termination of emergency status
State Emergency Management	<ul style="list-style-type: none"> • Aid affected area when requested • Coordinate specialized assistance • Notify appropriate state agencies • Determine who does what in an emergency

Thunderstorm				
Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Caddo Mills	Extensive	Highly Likely	Limited	Major
Commerce	Extensive	Highly Likely	Critical	Major
Greenville	Extensive	Highly Likely	Limited	Major
Lone Oak	Extensive	Highly Likely	Critical	Major
Quinlan	Extensive	Highly Likely	Minor	Medium
Quinlan ISD	Extensive	Highly Likely	Minor	Medium
West Tawakoni	Extensive	Highly Likely	Limited	Major
Wolfe City	Extensive	Highly Likely	Limited	Major
Hunt County	Extensive	Highly Likely	Limited	Major

Potential impacts from thunderstorms include:

- Property damage to fences, vehicles, equipment, and roofs
- Transportation delays
- Injury or death
- Electrical grid problems
- Power outage
- Communication problems – phone and internet lines down
- Natural environment damage, to include protected species and critical habitats
- Property damage
- Crop damage
- Fire- caused by lightning
- Blocked roadways from trees and damaged property

Although most new homes and buildings in the participating jurisdictions are built to resist the effects of all but the strongest thunderstorms, several mobile and manufactured home parks and vehicles remain vulnerable. Thousands of homes and vehicles can be damaged by high winds, hail, and lightning in a single storm, causing millions of dollars in damages.¹⁹

¹⁹ State of Texas Mitigation Plan. 2013, page 72.

Tornado				
Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Caddo Mills	Extensive	Likely	Limited	Medium
Commerce	Extensive	Possible	Critical	Major
Greenville	Extensive	Possible	Critical	Major
Lone Oak	Extensive	Highly Likely	Catastrophic	Major
Quinlan	Extensive	Possible	Catastrophic	Minor
Quinlan ISD	Extensive	Possible	Catastrophic	Minor
West Tawakoni	Extensive	Likely	Limited	Medium
Wolfe City	Extensive	Likely	Limited	Medium
Hunt County	Extensive	Likely	Limited	Medium

Potential impacts from tornadoes include:

- Injury or death
- Power outage
- Blocked roadways from trees and damaged property
- Natural gas pipeline breaks – fire injuries, possible deaths
- Transportation disruption
- Rerouting traffic
- Loss of property
- Structure and infrastructure damage
- Misplaced residents
- Natural environment damage, to include protected species and critical habitats

Are there any community safe rooms in your jurisdiction?				
Caddo Mills - No				
Commerce - No				
Greenville - No				
Lone Oak - No				
Quinlan - No				
Quinlan ISD - No				
West Tawakoni - No				
Wolfe City - No				
Hunt County - No				

Wildfire				
Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Caddo Mills	Extensive	Highly Likely	Limited	Medium
Commerce	Extensive	Unlikely	Minor	Minor

Wildfire				
Jurisdiction	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Greenville	Limited	Highly Likely	Limited	Major
Lone Oak	Limited	Likely	Minor	Minor
Quinlan	Limited	Possible	Limited	Minor
Quinlan ISD	Limited	Possible	Limited	Minor
West Tawakoni	Extensive	Highly Likely	Limited	Medium
Wolfe City	Extensive	Highly Likely	Limited	Medium
Hunt County	Extensive	Highly Likely	Limited	Medium

Potential impacts from wildfires include:

- Injury or death
- Property and fence damage
- Road closure
- Loss of power – burning utility poles
- Loss of property
- Loss of crops and livestock
- Structure and infrastructure damage
- Misplaced residents
- Loss of resources
- Natural environments damage, to include protected species and critical habitats

Considering population, economy, existing and future structures, improved property, critical facilities, critical infrastructure, and protected species, what is specifically vulnerable to wildfires in your jurisdiction?

Caddo Mills- N/A

Commerce- The city is surrounded by large, open farmland susceptible to wildfires.

Greenville- Residential areas located adjacent to undeveloped land are vulnerable to wildfires. The entire perimeter of the City is vulnerable to grass fires except for the north where several reservoirs are located.

Lone Oak- Residential areas located adjacent to undeveloped land are vulnerable to wildfires.

Quinlan- The city is surrounded by large, open farmland susceptible to wildfires.

Quinlan ISD- Every school in the district is susceptible to wildfires from surrounding open space.

West Tawakoni- The city is surrounded by large, open farmland susceptible to wildfires.

Wolfe City- The city is surrounded by large, open farmland susceptible to wildfires.

Hunt County- Residential areas located adjacent to undeveloped land are vulnerable to wildfires.

Please view WUI maps provided in this plan for details.

Where are sources of open space, greater than 25 acres, in your jurisdiction?

Caddo Mills- N/A

Commerce- N/A

Greenville- Agricultural and undeveloped land located within the city.

Lone Oak- City is surrounded by open space.

Quinlan- City is surrounded by open space.

Quinlan ISD- Open space surrounds the district.

West Tawakoni- South side of city on Rabbit Cove Road and Mays Lane; north side of city off 276.

Wolfe City- City is surrounded by open space.

Hunt County- Agricultural and undeveloped land located within the county.

Does your jurisdiction participate in prescribed burns? *A controlled or prescribed burn, also known as hazard reduction burning, backfire, swailing, or a burn-off, is a wildfire set intentionally for purposes of forest management, farming, prairie restoration or greenhouse gas abatement.*

Caddo Mills- No

Commerce- No

Greenville- No

Lone Oak- No

Quinlan- No

Quinlan ISD- No

West Tawakoni- No

Wolfe City- No

Hunt County- No

Winter Storm

	Location	Probability of Future Events	Level of Possible Damage	Maximum Probable Extent/Strength
Caddo Mills	Extensive	Highly Likely	Limited	Major
Commerce	Extensive	Likely	Critical	Major
Greenville	Extensive	Possible	Limited	Major
Lone Oak	Extensive	Likely	Limited	Medium
Quinlan	Extensive	Possible	Limited	Medium
Quinlan ISD	Extensive	Possible	Limited	Medium
West Tawakoni	Extensive	Likely	Limited	Medium
Wolfe City	Extensive	Highly Likely	Limited	Major
Hunt County	Extensive	Highly Likely	Limited	Major

Potential impacts from winter storms include:

- Structure and infrastructure damage
- Injury or death
- Power outages
- Loss of ability to use roads for driving
- Increased traffic accidents
- Loss of heat
- Stranded travelers / motels at full capacity

- Tree debris create fuel load for fire hazard
- Delayed emergency response time
- Frozen/ busted pipes leading to loss of water
- Disruption of traffic
- Impacts to the economy
- Communication capabilities decrease

List bridges and overpasses within the jurisdiction that could be impacted by a winter storm:

Caddo Mills- Caddo Creek Bridge – West of town on Hwy 66

Commerce- Bridge on Hwy 24 (heading north), Hwy 178, FM 3218, bridge on Hwy 11, and bridge on Charity Road.

Greenville- Business Hwy 69 @ I-30, Hwy 69 @ I-30, Wesley Street @ I-30, Wesley Street @ Hwy 69, and Stonewall Street and Johnson Street @ Crockett Street.

Lone Oak- None

Quinlan- None

Quinlan ISD- FM 751, SH 34, and FM 36

West Tawakoni- None

Wolfe City- 2-mile Bridge, causeway, I-30, and HWY 24

Hunt County- 2-mile Bridge, causeway, I-30, and HWY 24

3.7 Hazard Ranking

Due to the frequency of occurrence and high impact of hazards during this planning period, the ranking order of these hazards has changed since the 2015 plan. After assessing the vulnerabilities, capabilities, and risks, the participating jurisdictions considered the possible effects on population, economy, existing and future structures, improved property, critical facilities and infrastructure, and the natural environment when ranking each hazard.

The following table reflects the rankings of each hazard, per jurisdiction.

Jurisdiction	Drought	Earthquake	Expansive Soils	Extreme Heat	Flooding	Dam Failure Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms
Caddo Mills	2	9	8	6	7	N/A	1	5	3	4
Commerce	6	9	5	8	4	N/A	1	3	8	2
Greenville	3	9	4	2	8	9	1	7	6	5
Lone Oak	4	9	5	3	7	N/A	1	2	8	6
Quinlan	4	9	8	7	6	N/A	2	1	5	3
Quinlan ISD	4	9	8	7	6	N/A	2	1	5	3
West Tawakoni	2	8	9	6	7	N/A	1	5	3	4

Jurisdiction	Drought	Earthquake	Expansive Soils	Extreme Heat	Flooding	Dam Failure Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms
Wolfe City	2	8	9	6	7	N/A	1	5	3	4
Hunt County Unincorporated	2	8	9	6	7	N/A	1	5	3	4

Only the City of Greenville would be negatively impacted by flooding from dam failure due to the nature of the dams in their area.

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Chapter 4: Mitigation Strategy

Requirement	
§201.6(c)(3)	[The plan shall include the following:] A mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs, and resources, and its ability to expand on and improve these existing tools.
§201.6(c)(3)(i)	[The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.
§201.6(c)(3)(iii)	[The hazard mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure. All plans approved by FEMA [Federal Emergency Management Agency] after October 1, 2008, must also address the jurisdiction's participation in the NFIP [National Flood Insurance Program], and continued compliance with NFIP requirements, as appropriate.
§201.6(c)(3)(iv)	[The hazard mitigation strategy shall include an] action plan, describing how the action identified in paragraph (c)(3)(ii) of this section will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.
§201.6(c)(4)(ii)	For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan. [The plan shall include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvements, when appropriate.

4.1 Mitigation Goals

The Hunt County Hazard Mitigation Planning Team reviewed the previous Hunt County mitigation goals and unanimously agreed to forego these goals and adopt the following hazard mitigation goals:

“Our goals are to protect life and reduce bodily harm from natural hazards, and to lessen the impacts of natural hazards on property and the community through hazard mitigation.”

4.2 Mitigation Strategy

The mitigation strategy serves as the long-term blueprint for reducing the potential losses identified in the risk assessment. The Stafford Act directs hazard mitigation plans to describe hazard mitigation actions and establish a strategy to implement those actions. Therefore, all other requirements for a hazard mitigation plan lead to and support the mitigation strategy.

Each participating jurisdiction recommended strategies and actions that would support the mitigation goals, then went through a ranking process to determine which actions they would prioritize for completion. The jurisdictions conducted a cost benefit analysis to determine which strategies would most benefit their community. All project cost estimations are based on agency expertise by those submitting mitigation actions as well as previous project costs; however, many projects provided have not yet undergone the official benefit-cost analysis provided by FEMA. In these cases, jurisdictions derived the benefit cost per project based on a study conducted by the National Institute of Building Science. This study estimates that past 23 years of federally funded natural hazard mitigation has prevented approximately one million nonfatal injuries, 600 deaths, and 4,000 cases of post-traumatic stress disorder (PTSD), a total cost savings of \$68 billion. The key findings of the report included that \$1 spent on mitigation saves society an average of \$6, with positive benefit-cost ratios for all hazard types studied.²⁰ Therefore, to reflect the benefits of future projects, each estimated project was multiplied by 6 to represent the benefit of each mitigation strategy. Utilizing this information, in addition to their jurisdiction's priorities, jurisdictions ranked their mitigation strategies and submitted them to the HMPT.

4.3 Funding Priorities

As necessary, Hunt County and participating jurisdictions will seek outside funding sources to implement mitigation projects in both the pre-disaster and post-disaster environments. When applicable, potential funding sources have been identified for proposed actions listed in the mitigation strategies.

Priority will go towards projects will the highest positive impact on community resilience.

4.4 Status of Previous Mitigation Action Items

The action items in the 2015 Hunt County HazMAP were determined by the 2015 Local Planning Team (LPT) in each jurisdiction. Below are the action items from each participating jurisdiction from the 2015 plan and the status of each action. Actions deleted are no longer a priority and actions deferred are deferred to this HazMAP. The City of Caddo Mills and Quinlan ISD are new participants; thus, they do not have previous action to identify.

City of Commerce	
Status	2015 Mitigation Actions
Deferred	Adopt and promote public education program.
In-progress	Participate in the Texas Tornado Shelter Rebate Program.

²⁰ Multihazard Mitigation Council (2017) Natural Hazard Mitigation Saves 2017 Interim Report: An Independent Study. Principal Investigator Porter, K.; Co-Principal Investigators Scawthorn, C.; Dash, N.; Santos, J.; Investigators: Eguchi, M., Ghosh, S., Huyck, C., Isteita, M., Mickey, K., Rashed, T.; P. Schneider, Director, MMC. National Institute of Building Sciences, Washington.

City of Commerce	
Status	2015 Mitigation Actions
Deferred	Increase the ability of residents and businesses of Commerce to receive early warning from the National Weather Service. This would be accomplished by using grant funding to help purchase and distribute NOAA weather radios to vulnerable populations and businesses.
Deferred	Utilize facilities that are large enough to host citizens in cooling centers during extreme heat events, and then distribute that list of locations to those who might be in need of such facilities.
Deferred	Utilize facilities that are large enough to host citizens in warming centers during winter storm events, and then distribute that list of locations to those who might be in need of such facilities. Work with Red Cross, Salvation Army, Churches and civic groups in having overnight facilities available as needed.
In-progress	Adopt and Promote the program of "Turn Around Don't Drown Campaign." This is a campaign that would install signs at low water crossings to prevent travel in flooded conditions.
Deferred	Require drought resistance vegetation in landscaping and limited watering for residents and businesses.
Deferred	Adopt and promote the Firewise Program.
Deleted	Hire a consultant to complete a dam inundation study, safety study, and inventory of mitigation activities to implement for the county dams.
Deleted	Conduct a seismology study to determine scope, impact, and extent of potential earthquakes.

City of Greenville	
Status	2015 Mitigation Actions
Completed	Public education- winter weather.
Deleted	Construct safe room.
Deferred	Salt on roadways.
Completed	Rescue training.
Completed	Generators.
Completed	Electrical Cooperative Plans.
In-Progress	Continued tree trimming near power lines.
Completed	Public education- water conservation.
Completed	Annual water audit.
Deferred	Public education- heat.
Deferred	Establish "cooling zones".
In-Progress	Construct tornado shelter(s).
Completed	Public education- tornado.
Completed	Encourage saferooms.
Completed	Enforce floodplains.
Completed	Roadway mitigations.
Deleted	Floodproofing structures.
Completed	Increase NFIP participation.
Completed	BCEGS.
Deferred	Elevation/barriers of flood prone structures.

City of Greenville	
Status	2015 Mitigation Actions
Completed	Inundation map.
Deferred	Emergency Action Plan (EAP) for dams.
Deferred	Public education- dams.
Deferred	Dam inspections.
Completed	Public HAZMAT regulations/plans.
Completed	HAZMAT training/study.
Completed	HAZMAT lists to City.
Completed	Airport preparedness.
Completed	Airport accident training.
Deferred	Educate the public and businesses at risk of potential for earthquakes.
In-Progress	Citywide brush and debris disposal to encourage proper trimming and disposal of vegetation to reduce property loss.
In-Progress	Yearly updating of building codes and continual education of the public, realtors, and home inspectors.
Completed	Educate the community regarding fire prevention and fire bans.
Deferred	Keep grass near roadsides in interface areas mowed providing less fuel for wildfires.
Deferred	Replace the old Central Fire Station, locating it closer to the southeast interface area so the response time to housing development and the business corridor is reduced.
In-Progress	Keep trees along major corridors trimmed away from power lines reducing power outages due to high winds snapping power lines.
Completed	Educate the community via the website and flyers or billing notice of ways to reduce damage from windstorms.
Completed	Ensure new buildings are built to the current building codes to ensure proper materials are utilized to prevent premature failure due to moderate to high localized wind gusts.
Completed	Educate the community regarding information on how the individual person can be prepared for cold weather, as well as how to prevent and treat possible cold weather injuries.
Completed	Continually update CodeRED system.

City of Lone Oak	
Status	2015 Mitigation Actions
Deferred	Adopt and promote public education program.
In-progress	Participate in the Texas Tornado Shelter Rebate Program.
Deferred	Increase the ability of residents and businesses of Commerce to receive early warning from the National Weather Service. This would be accomplished by using grant funding to help purchase and distribute NOAA weather radios to vulnerable populations and businesses.

City of Lone Oak	
Status	2015 Mitigation Actions
Deferred	Utilize facilities that are large enough to host citizens in cooling centers during extreme heat events, and then distribute that list of locations to those who might be in need of such facilities.
Deleted	Utilize facilities that are large enough to host citizens in warming centers during winter storm events, and then distribute that list of locations to those who might be in need of such facilities. Work with Red Cross, Salvation Army, Churches and civic groups in having overnight facilities available as needed.
Completed	Adopt and Promote the program of "Turn Around Don't Drown Campaign." This is a campaign that would install signs at low water crossings to prevent travel in flooded conditions.
Deleted	Require drought resistance vegetation in landscaping and limited watering for residents and businesses.
Deleted	Hire a consultant to complete a dam inundation study, safety study, and inventory of mitigation activities to implement for the county dams.
Deleted	Conduct a seismology study to determine scope, impact, and extent of potential earthquakes.

City of Quinlan	
Status	2015 Mitigation Actions
In-Progress	Revise development regulations to require underground utilities for new developments.
In-Progress	Create and Implement a Public Education Program for Residents.
In-Progress	Implement early warning programs for Quinlan residents.
Completed	Adopt and enforce ordinances for high grass, weeds, brush, debris and dilapidated structures.
Completed	Create a buffer zone around critical facilities by clearing underbrush, debris and keeping are mowed and free of wildfire fuel.
In-Progress	Improve Water Delivery/Storage Monitoring Systems to more quickly identify leaks, breaks and other forms of water loss.
Completed	Adopt and enforce water conservation measures during periods of drought.
Deleted	Utilize facilities that are large enough to host citizens in cooling centers during extreme heat events, and then distribute that list of locations to those who might be in need of such facilities.
Deleted	Hire a consultant to complete a dam inundation study, safety study, and inventory of mitigation activities to implement for the county dams.
Deleted	Conduct a seismology study to determine scope, impact, and extent of potential earthquakes.

City of West Tawakoni	
Status	2015 Mitigation Actions
In-progress	Hire a consultant to complete a dam inundation study, safety study, and inventory of mitigation activities to implement for the county dams
In-progress	Conduct a seismology study to determine scope, impact, and extent of potential earthquakes
Deferred	Adopt and promote public education program
In-progress	Participate in the Texas Tornado Shelter Rebate Program
Deferred	Increase the ability of residents and businesses of West Tawakoni to receive early warning from the National Weather Service. This would be accomplished by using grant funding to help purchase and distribute NOAA weather radios to vulnerable populations and businesses
Deferred	Adopt and implement the Firewise program
In-progress	Utilize facilities that are large enough to host citizens in cooling centers during extreme heat events, and then distribute that list of locations to those who might be in need of such facilities
Deleted	Utilize facilities that are large enough to host citizens in warming centers during winter storm events, and then distribute that list of locations to those who might be in need of such facilities. Work with Red Cross, Salvation Army, Churches and civic groups in having overnight facilities available as needed
In-progress	Adopt and implement the “Turn Around, Don’t Drown” program. This is a campaign that would install signs at low water crossings to prevent travel in flooded conditions
Deferred	Require drought resistance vegetation in landscaping and limited watering for residents during times of drought

City of Wolfe City	
Status	2015 Mitigation Actions
In-progress	Adopt and promote public education program.
In-progress	Participate in the Texas Tornado Shelter Rebate Program.
Deferred	Increase the ability of residents and businesses of Commerce to receive early warning from the National Weather Service. This would be accomplished by using grant funding to help purchase and distribute NOAA weather radios to vulnerable populations and businesses.
In-progress	Adopt and promote the Firewise Program.
Deferred	Utilize facilities that are large enough to host citizens in cooling centers during extreme heat events, and then distribute that list of locations to those who might be in need of such facilities.
Deferred	Utilize facilities that are large enough to host citizens in warming centers during winter storm events, and then distribute that list of locations to those who might be in need of such facilities. Work with Red Cross, Salvation Army, Churches and civic groups in having overnight facilities available as needed.

City of Wolfe City	
Status	2015 Mitigation Actions
In-progress	Adopt and Promote the program of “Turn Around Don’t Drown Campaign.” This is a campaign that would install signs at low water crossings to prevent travel in flooded conditions.
Deleted	Require drought resistance vegetation in landscaping and limited watering for residents and businesses.
In-progress	Hire a consultant to complete a dam inundation study, safety study, and inventory of mitigation activities to implement for the county dams.
Deferred	Conduct a seismology study to determine scope, impact, and extent of potential earthquakes.

Hunt County Unincorporated	
Status	2015 Mitigation Actions
In-progress	Adopt and promote public education program.
In-progress	Participate in the Texas Tornado Shelter Rebate Program.
In-progress	Increase the ability of residents and businesses of Commerce to receive early warning from the National Weather Service. This would be accomplished by using grant funding to help purchase and distribute NOAA weather radios to vulnerable populations and businesses.
In-progress	Adopt and promote the Firewise Program.
In-progress	Utilize facilities that are large enough to host citizens in cooling centers during extreme heat events, and then distribute that list of locations to those who might be in need of such facilities.
In-progress	Utilize facilities that are large enough to host citizens in warming centers during winter storm events, and then distribute that list of locations to those who might be in need of such facilities. Work with Red Cross, Salvation Army, Churches and civic groups in having overnight facilities available as needed.
Deferred	Adopt and Promote the program of “Turn Around Don’t Drown Campaign.” This is a campaign that would install signs at low water crossings to prevent travel in flooded conditions.
Deferred	Require drought resistance vegetation in landscaping and limited watering for residents and businesses.
In-progress	Hire a consultant to complete a dam inundation study, safety study, and inventory of mitigation activities to implement for the county dams.
Deleted	Conduct a seismology study to determine scope, impact, and extent of potential earthquakes.

4.5 New Mitigation Action Items

New action items were determined by each participating jurisdiction's Local Planning Team for the 2020 Hazard Mitigation Action Plan (HazMAP). These actions include mitigation actions that qualify for mitigation funding as well as enforcement, maintenance, and response actions that the jurisdictions have identified as opportunities to increase their resiliency to hazards.

During the capabilities assessment and hazard analysis, previously impacted assets and populations were analyzed to determine the highest probability of damage and potential of loss of life per hazard. To determine the estimated benefit of each action item, data from the 2017 Interim Report was used to develop a cost-benefit analysis [*Estimated Cost* x 6 = *Estimated Benefit*], as it reports that \$1 spent in mitigation saves a community an average of \$6 in recovery²¹.

Remaining consistent with previous plans, **priority** will go towards projects with the highest positive impact on community resilience, including life safety and property protection. Below are the action items for this HazMAP.

City of Caddo Mills Mitigation Action Items

Hazard(s) Addressed	Drought, Extreme Heat, Earthquakes, Expansive Soils, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Enhance the public education program to include mitigation strategies for the identified natural hazards.	
Participating Jurisdiction	City of Caddo Mills
Priority:	1
Estimated Cost:	\$4,000
Estimated Benefit:	\$24,000
Potential Funding Source(s):	Grants, general fund
Lead Agency/Department Responsible:	Police Department, Fire Department
Implementation Schedule:	24 months
Hazard(s) Addressed	Thunderstorms, Tornadoes, Wildfires
Action: Upgrade and add outdoor warning siren to south end of city.	
Participating Jurisdiction	City of Caddo Mills
Priority:	2
Estimated Cost:	\$30,000
Estimated Benefit:	\$180,000
Potential Funding Source(s):	Grants, general fund
Lead Agency/Department Responsible:	Fire Department
Implementation Schedule:	24 months

²¹ Natural Hazard Mitigation Saves: 2017 Interim Report. National Institute of Building Science.
< <https://www.nibs.org/page/mitigationsaves> >

Hazard(s) Addressed	Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Trim trees down corridors/streets on a regular basis.	
Participating Jurisdiction	City of Caddo Mills
Priority:	3
Estimated Cost:	\$15,000
Estimated Benefit:	\$90,000
Potential Funding Source(s):	Grants, general fund
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 months
Hazard(s) Addressed	Tornadoes
Action: Build tornado shelter on city property off Gilmer Street.	
Participating Jurisdiction	City of Caddo Mills
Priority:	4
Estimated Cost:	\$400,000
Estimated Benefit:	\$2,400,000
Potential Funding Source(s):	Grants, general fund
Lead Agency/Department Responsible:	Public Works Department, City Engineer
Implementation Schedule:	24 months
Hazard(s) Addressed	Flooding
Action: Become an NFIP Community Rating System Community.	
Participating Jurisdiction	City of Caddo Mills
Priority:	5
Estimated Cost:	\$100,000
Estimated Benefit:	\$600,000
Potential Funding Source(s):	Grants, general fund
Lead Agency/Department Responsible:	City Administration
Implementation Schedule:	24 months

Hazard(s) Addressed	Drought, Expansive Soils
Action: Incorporate drought tolerant or xeriscape practices into city landscape to reduce dependence on irrigation.	
Participating Jurisdiction	City of Caddo Mills
Priority:	6
Estimated Cost:	\$50,000
Estimated Benefit:	\$300,000
Potential Funding Source(s):	Grants, general fund
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 months
Hazard(s) Addressed	Extreme Heat, Winter Storms
Action: Organize outreach to vulnerable populations, including establishing and promoting accessible heating or cooling centers in the community.	
Participating Jurisdiction	City of Caddo Mills
Priority:	7
Estimated Cost:	\$10,000
Estimated Benefit:	\$60,000
Potential Funding Source(s):	Grants, general fund
Lead Agency/Department Responsible:	Fire Department
Implementation Schedule:	24 months
Hazard(s) Addressed	Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Update and/or adopt the most current building code, residential code, mechanical code, plumbing code, and electrical code. Adopting the International Building Code (IBC) and International Residential Code (IRC).	
Participating Jurisdiction	City of Caddo Mills
Priority:	8
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	City budget, grants, local funding
Lead Agency/Department Responsible:	Building Official
Implementation Schedule:	24 months

City of Commerce Mitigation Action Items

Hazard(s) Addressed:	Flooding
Action: Become an NFIP CRS (Community Rating System) Community.	
Participating Jurisdiction	Commerce
Priority:	1
Estimated Cost:	\$2,000
Estimated Benefit:	\$12,000
Potential Funding Source(s):	Grant, General Fund
Lead Agency, Department Responsible:	Office of Emergency Management
Implementation Schedule:	12 months
Hazard(s) Addressed:	Flooding
Action: Update the city-wide drainage study from 2011.	
Participating Jurisdiction	Commerce
Priority:	2
Estimated Cost:	\$60,000
Estimated Benefit:	\$360,000
Potential Funding Source(s):	Grants, General Fund
Lead Agency, Department Responsible:	Community Development, Public Works Department
Implementation Schedule:	12 months
Hazard(s) Addressed:	Extreme Heat, Winter Storms
Action: Designate the city gym as warming, cooling center by installing adequate HVAC system and supplying water and blankets.	
Participating Jurisdiction	Commerce
Priority:	3
Estimated Cost:	\$50,000
Estimated Benefit:	\$300,000
Potential Funding Source(s):	Grant, General Fund
Lead Agency, Department Responsible:	Parks & Recreation Department
Implementation Schedule:	12 months

Hazard(s) Addressed:	Drought, Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Install infrastructure for the city to tap into alternative water sources (i.e. Texas A&M University-Commerce).	
Participating Jurisdiction	Commerce
Priority:	4
Estimated Cost:	\$15,000
Estimated Benefit:	\$90,000
Potential Funding Source(s):	Grants, Capital Improvement Fund, General Fund
Lead Agency, Department Responsible:	Public Works Department
Implementation Schedule:	12 months
Hazard(s) Addressed:	Flooding
Action: Increase the retaining wall and install sump pumps at the wastewater treatment plant.	
Participating Jurisdiction	Commerce
Priority:	5
Estimated Cost:	\$1,000,000
Estimated Benefit:	\$6,000,000
Potential Funding Source(s):	Grants, City's General Fund
Lead Agency, Department Responsible:	Public Utilities
Implementation Schedule:	24 months
Hazard(s) Addressed:	Drought, Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Actions: Purchase backup generators for all critical facilities to include the wastewater treatment plant and water treatment plant.	
Participating Jurisdiction	Commerce
Priority:	6
Estimated Cost:	\$200,000
Estimated Benefit:	\$1,200,000
Potential Funding Source(s):	Grants, City's General Fund
Lead Agency, Department Responsible:	Fire Department
Implementation Schedule:	6 months

Hazard(s) Addressed:	Drought, Expansive Soils, Extreme Heat, Flooding, Winter Storms
Action: Replace several streets with porous pavement options.	
Participating Jurisdiction	Commerce
Priority:	7
Estimated Cost:	\$5,000,000
Estimated Benefit:	\$30,000,000
Potential Funding Source(s):	Grants, City's General Fund
Lead Agency, Department Responsible:	Public Works Department
Implementation Schedule:	12 months
Hazard(s) Addressed:	Flooding
Action: Activate Sulphur River clean-up efforts in order to prevent flooding from buildup of debris.	
Participating Jurisdiction	Commerce
Priority:	8
Estimated Cost:	\$1,000,000
Estimated Benefit:	\$6,000,000
Potential Funding Source(s):	Grants, Capital Improvement Program
Lead Agency, Department Responsible:	Public Works
Implementation Schedule:	Approximately 12 months
Hazard(s) Addressed:	Drought, Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Harden the City of Commerce Animal Shelter to withstand all natural hazards.	
Participating Jurisdiction	Commerce
Priority:	9
Estimated Cost:	\$200,000
Estimated Benefit:	\$1,200,000
Potential Funding Source(s):	Grants, Capital Improvement Fund, General Fund
Lead Agency, Department Responsible:	Community Development
Implementation Schedule:	24 months

Hazard(s) Addressed:	Drought, Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Install solar panels to future city-owned facilities.	
Participating Jurisdiction	Commerce
Priority:	10
Estimated Cost:	\$100,000
Estimated Benefit:	\$600,000
Potential Funding Source(s):	Grants, City's General Fund
Lead Agency, Department Responsible:	Community Development, City Administration
Implementation Schedule:	6 months
Hazard(s) Addressed:	Flooding, Thunderstorms, Tornadoes, Winter Storms
Action: Install CASA Radar.	
Participating Jurisdiction	Commerce
Priority:	11
Estimated Cost:	\$750,000
Estimated Benefit:	\$4,500,000
Potential Funding Source(s):	Grants, City's General Fund
Lead Agency, Department Responsible:	Police Department
Implementation Schedule:	6 months
Hazard(s) Addressed:	Drought, Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Adopt city ordinance mandating green infrastructure in designated areas.	
Participating Jurisdiction	Commerce
Priority:	12
Estimated Cost:	\$2,000
Estimated Benefit:	\$12,000
Potential Funding Source(s):	Grants, City's General Fund
Lead Agency, Department Responsible:	City Administration, City Secretary
Implementation Schedule:	6 months

Hazard(s) Addressed:	Extreme Heat, Thunderstorms, Winter Storms
Action: Build a covered parking for city equipment.	
Participating Jurisdiction	Commerce
Priority:	13
Estimated Cost:	\$2,000,000
Estimated Benefit:	\$12,000,000
Potential Funding Source(s):	Grants, Capital Improvement Fund, General Fund
Lead Agency, Department Responsible:	Police Department
Implementation Schedule:	24 months

City of Greenville Mitigation Action Items

Hazard(s) Addressed	Thunderstorms
Action: Increase hail risk awareness and individual mitigation actions through public education.	
Participating Jurisdiction	City of Greenville
Priority:	1
Estimated Cost:	\$3,000
Estimated Benefit:	\$18,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	24 Months
Hazard(s) Addressed	Drought, Earthquakes, Extreme Heat, Flooding, Dam Failure Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Update the Incident Action Plan (IAP) for massive power outages due to natural hazards.	
Participating Jurisdiction	City of Greenville
Priority:	2
Estimated Cost:	\$8,000
Estimated Benefit:	\$48,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Greenville Electric Utility
Implementation Schedule:	24 Months

Hazard(s) Addressed	Extreme Heat
Action: Assist vulnerable populations in times of extreme heat by opening cooling centers and providing portable air conditioners.	
Participating Jurisdiction	City of Greenville
Priority:	3
Estimated Cost:	\$18,000
Estimated Benefit:	\$108,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	24 months
Hazard(s) Addressed	Extreme Heat
Action: Increase awareness of extreme heat risk and individual mitigation actions through public education.	
Participating Jurisdiction	City of Greenville
Priority:	4
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	24 Months
Hazard(s) Addressed	Drought
Action: Replace aging water supply system.	
Participating Jurisdiction	City of Greenville
Priority:	6
Estimated Cost:	\$12 Million
Estimated Benefit:	\$72 Million
Potential Funding Source(s):	Bonds, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 Months
Hazard(s) Addressed	Drought
Action: Educate residents on water saving techniques.	
Participating Jurisdiction	City of Greenville
Priority:	7
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	12 Months

Hazard(s) Addressed	Expansive Soils
Action: Implement a public education program that addresses preventative measures related to expansive soils.	
Participating Jurisdiction	City of Greenville
Priority:	8
Estimated Cost:	\$7,000
Estimated Benefit:	\$42,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Community Development
Implementation Schedule:	24 Months
Hazard(s) Addressed	Expansive Soils
Action: Ensure that the locally adopted building codes address the issue of expansive soils.	
Participating Jurisdiction	City of Greenville
Priority:	9
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Community Development
Implementation Schedule:	24 Months
Hazard(s) Addressed	Winter Storms
Action: Develop a plan to protect critical infrastructure during ice events.	
Participating Jurisdiction	City of Greenville
Priority:	10
Estimated Cost:	\$2,000
Estimated Benefit:	\$12,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Greenville Electric Utility
Implementation Schedule:	12 months
Hazard(s) Addressed	Winter Storms
Action: Educate citizens and business on safety precautions to take during winter storm events.	
Participating Jurisdiction	City of Greenville
Priority:	11
Estimated Cost:	\$2,500
Estimated Benefit:	\$15,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	24 months

Hazard(s) Addressed	Winter Storms
Action: Inform property owners on the risks associated with extremely cold temperatures and individual mitigation actions through public education.	
Participating Jurisdiction	City of Greenville
Priority:	12
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	12 months
Hazard(s) Addressed	Wildfires
Action: Educate citizens on the hazards of the Wildland Urban Interface.	
Participating Jurisdiction	City of Greenville
Priority:	13
Estimated Cost:	\$4,500
Estimated Benefit:	\$27,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Fire Department
Implementation Schedule:	24 months
Hazard(s) Addressed	Wildfires
Action: Implement a control burning program to mitigate urban wildfire hazards.	
Participating Jurisdiction	City of Greenville
Priority:	14
Estimated Cost:	\$1,000
Estimated Benefit:	\$6,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Fire Department
Implementation Schedule:	24 months
Hazard(s) Addressed	Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Expand weather warning system to include electronic warning.	
Participating Jurisdiction	City of Greenville
Priority:	15
Estimated Cost:	\$10,000
Estimated Benefit:	\$60,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	12 months

Hazard(s) Addressed	Tornadoes
Action: Increase tornado awareness and individual mitigation actions through public education.	
Participating Jurisdiction	City of Greenville
Priority:	16
Estimated Cost:	\$2,500
Estimated Benefit:	\$15,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	12 Months
Hazard(s) Addressed	Flooding, Dam Failure Flooding
Action: Create a maintenance schedule for drainage systems and flood control structures.	
Participating Jurisdiction	City of Greenville
Priority:	17
Estimated Cost:	\$25,000
Estimated Benefit:	\$150,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	5 Years
Hazard(s) Addressed	Flooding
Action: Adopt new policies to reduce stormwater runoff.	
Participating Jurisdiction	City of Greenville
Priority:	18
Estimated Cost:	\$2,000
Estimated Benefit:	\$12,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Community Development
Implementation Schedule:	2 Years
Hazard(s) Addressed	Flooding
Action: Become an NFIP Community Rating System (CRS) community.	
Participating Jurisdiction	City of Greenville
Priority:	19
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	12 Months

Hazard(s) Addressed	Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Update and/or adopt the most current building code, residential code, mechanical code, plumbing code, and electrical code. Adopting the International Building Code (IBC) and International Residential Code (IRC).	
Participating Jurisdiction	City of Greenville
Priority:	20
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	City budget, grants, local funding
Lead Agency/Department Responsible:	Community Development
Implementation Schedule:	24 months
Hazard(s) Addressed	Earthquakes
Action: Educate the public on how to mitigate their homes/properties for earthquakes (i.e. furniture anchoring)	
Participating Jurisdiction	City of Greenville
Priority:	21
Estimated Cost:	\$2,500
Estimated Benefit:	\$15,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	12 Months
Hazard(s) Addressed	Earthquakes, Expansive Soils, Flooding, Dam Failure Flooding
Action: Establish a regular schedule to monitor dams on a quarterly basis.	
Participating Jurisdiction	City of Greenville
Priority:	22
Estimated Cost:	\$1,000
Estimated Benefit:	\$6,000
Potential Funding Source(s):	General Fund, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 months

Hazard(s) Addressed	Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Wildfires, Winter Storms
Action: Utilize Smartscape landscaping across all new and existing landscapes, to include native plants and shade trees.	
Participating Jurisdiction	City of Greenville
Priority:	23
Estimated Cost:	\$3,000,000
Estimated Benefit:	\$18,000,000
Potential Funding Source(s):	Local budget, grants
Lead Agency/Department Responsible:	Department of Public Works
Implementation Schedule:	24 months
Hazard(s) Addressed	Drought, Expansive Soils, Flooding, Dam Failure Flooding
Action: Inspect dams for repair, maintenance, animal damage and provide guidance to dam owners on how best to maintain the dam.	
Participating Jurisdiction	City of Greenville
Priority:	6
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	Local budget, grants
Lead Agency/Department Responsible:	Department of Public Works/ Owners
Implementation Schedule:	24 months
Hazard(s) Addressed	Flooding, Dam Failure Flooding
Action: Ensure there are Emergency Action Plans in force for high hazard dams.	
Participating Jurisdiction	City of Greenville
Priority:	5
Estimated Cost:	\$2,000
Estimated Benefit:	\$12,000
Potential Funding Source(s):	Local budget, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	24 months

City of Lone Oak Mitigation Action Items

Hazard(s) Addressed	Thunderstorms, Tornadoes, Wildfires
Action: Purchase and install Outdoor Warning Sirens.	
Participating Jurisdiction	City of Lone Oak
Priority:	1
Estimated Cost:	\$25,000 each
Estimated Benefit:	\$150,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Police Department
Implementation Schedule:	6 months
Hazard(s) Addressed	Drought, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Install a mass notification system via text or email, such as CodeRed.	
Participating Jurisdiction	City of Lone Oak
Priority:	2
Estimated Cost:	\$1,000
Estimated Benefit:	\$6,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Police and Fire Departments
Implementation Schedule:	12 Months
Hazard(s) Addressed	Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Public education system to include mitigation actions citizens can implement on their property/homes	
Participating Jurisdiction	City of Lone Oak
Priority:	3
Estimated Cost:	\$200
Estimated Benefit:	\$1,200
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 Months

Hazard(s) Addressed	Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Harden all existing critical and vulnerable facilities.	
Participating Jurisdiction	City of Lone Oak
Priority:	4
Estimated Cost:	\$2,000,000
Estimated Benefit:	\$12,000,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 Months
Hazard(s) Addressed	Flooding
Action: Improve drainage with culverts and drainage easements.	
Participating Jurisdiction	City of Lone Oak
Priority:	5
Estimated Cost:	\$50,000
Estimated Benefit:	\$300,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 Months
Hazard(s) Addressed	Thunderstorms, Tornadoes
Action: Purchase and install storm shelter near critical facilities.	
Participating Jurisdiction	City of Lone Oak
Priority:	6
Estimated Cost:	\$50,000
Estimated Benefit:	\$300,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Police and Fire Departments
Implementation Schedule:	12 Months
Hazard(s) Addressed	Extreme Heat, Thunderstorms, Winter Storms
Action: Create covered parking to protect critical equipment and vehicles.	
Participating Jurisdiction	City of Lone Oak
Priority:	7
Estimated Cost:	\$200,000
Estimated Benefit:	\$1,200,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 Months

Hazard(s) Addressed	Drought
Action: Create drought contingency plan.	
Participating Jurisdiction	City of Lone Oak
Priority:	8
Estimated Cost:	\$1,000
Estimated Benefit:	\$6,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 Months
Hazard(s) Addressed	Wildfires
Action: Create WUI buffers around vulnerable facilities.	
Participating Jurisdiction	City of Lone Oak
Priority:	9
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 Months
Hazard(s) Addressed	Winter Storms
Action: Purchase a sand truck to prevent ice accumulation on roads.	
Participating Jurisdiction	City of Lone Oak
Priority:	10
Estimated Cost:	\$60,000
Estimated Benefit:	\$3,600,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	6 Months
Hazard(s) Addressed	Flooding
Action: Become an NFIP participant.	
Participating Jurisdiction	City of Lone Oak
Priority:	11
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 Months

Hazard(s) Addressed	Drought, Earthquake, Extreme Heat, Flooding, Thunderstorms, Wildfires, Winter Storms
Action: Utilize Smartscape landscaping across all new and existing landscapes, to include native plants and shade trees.	
Participating Jurisdiction	City of Lone Oak
Priority:	12
Estimated Cost:	\$3,000,000
Estimated Benefit:	\$18,000,000
Potential Funding Source(s):	Local budget, grants
Lead Agency/Department Responsible:	Department of Public Works
Implementation Schedule:	24 months

City of Quinlan Mitigation Action Items

Hazard(s) Addressed	Earthquakes, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Purchase mobile generators to be used as backup power to water/sewer components.	
Participating Jurisdiction	City of Quinlan
Priority:	1
Estimated Cost:	\$75,000
Estimated Benefit:	\$450,000
Potential Funding Source(s):	Grant, local funds
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	12 Months
Hazard(s) Addressed	Flooding
Action: Implement design standards for future residential and commercial development related to stormwater runoff and detention requirements.	
Participating Jurisdiction	City of Quinlan
Priority:	2
Estimated Cost:	\$30,000
Estimated Benefit:	\$180,000
Potential Funding Source(s):	Local funds, grants
Lead Agency/Department Responsible:	Public Works Department, City Administration
Implementation Schedule:	12 Months

Hazard(s) Addressed	Drought, Expansive Soils
Action: Work with county extension agent and local nurseries to educate the public on using drought resistance vegetation in landscaping.	
Participating Jurisdiction	City of Quinlan
Priority:	3
Estimated Cost:	\$10,000
Estimated Benefit:	\$60,000
Potential Funding Source(s):	Local funds, in-kind match
Lead Agency/Department Responsible:	City Council, City Administration
Implementation Schedule:	24 Months
Hazard(s) Addressed	Drought, Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Promote the KnowWhat2Do program- the NCTCOG official public education program for the region.	
Participating Jurisdiction	City of Quinlan
Priority:	4
Estimated Cost:	\$10,000
Estimated Benefit:	\$60,000
Potential Funding Source(s):	General funds, state funds, grants
Lead Agency/Department Responsible:	City Administration, City Council
Implementation Schedule:	24 Months
Hazard(s) Addressed	Flooding
Action: Become an NFIP Community Rating System Community.	
Participating Jurisdiction	City of Quinlan
Priority:	5
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	Grants, general fund
Lead Agency/Department Responsible:	City Administration
Implementation Schedule:	24 months

Hazard(s) Addressed	Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Harden all existing critical and vulnerable facilities.	
Participating Jurisdiction	City of Quinlan
Priority:	6
Estimated Cost:	\$2,000,000
Estimated Benefit:	\$12,000,000
Potential Funding Source(s):	City budget, grants
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 Months
Hazard(s) Addressed	Drought, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Wildfires, Winter Storms
Action: Utilize Smartscape landscaping across all new and existing landscapes, to include native plants and shade trees.	
Participating Jurisdiction	City of Quinlan
Priority:	7
Estimated Cost:	\$3,000,000
Estimated Benefit:	\$18,000,000
Potential Funding Source(s):	Local budget, grants
Lead Agency/Department Responsible:	Department of Public Works
Implementation Schedule:	24 months

Quinlan Independent School District Mitigation Action Items

Hazard(s) Addressed	Tornadoes
Action: Build a community saferoom near campuses.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	1
Estimated Cost:	\$4,000,000
Estimated Benefit:	\$24,000,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	24 months

Hazard(s) Addressed	Drought, Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Install generators at every Quinlan ISD facility.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	2
Estimated Cost:	\$550,000
Estimated Benefit:	\$3,300,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	18 months
Hazard(s) Addressed	Thunderstorms, Tornadoes
Action: Retrofit existing facility (TMS) with hail & wind-resistant roofing.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	3
Estimated Cost:	\$800,000
Estimated Benefit:	\$4,800,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	24 months
Hazard(s) Addressed	Extreme Heat, Thunderstorms, Winter Storms
Action: Install covered parking for Quinlan ISD vehicles at Transportation Facility.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	4
Estimated Cost:	\$600,000
Estimated Benefit:	\$3,600,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	24 months
Hazard(s) Addressed	Expansive Soils
Action: Add piers under the Ford High School Agriculture and #1400 hallways to protect against further slab and building damage.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	5
Estimated Cost:	\$500,000
Estimated Benefit:	\$3,000,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	24 months

Hazard(s) Addressed	Flooding
Action: Install larger culverts underneath bus lane road between Cannon and Butler campuses.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	6
Estimated Cost:	\$25,000
Estimated Benefit:	\$150,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	12 months
Hazard(s) Addressed	Flooding
Action: Increase the capacity of drainage ditch behind D.C. Cannon Elementary to move rainwater faster off school property.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	7
Estimated Cost:	\$20,000
Estimated Benefit:	\$120,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	12 months
Hazard(s) Addressed	Flooding
Action: Build retention pond to reduce flooding on school park property.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	8
Estimated Cost:	\$15,000
Estimated Benefit:	\$90,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	15 months
Hazard(s) Addressed	Extreme Heat, Thunderstorms, Winter Storms
Action: Install covered awning at the drop-off and pick-up zones of all QISD campus buildings for protection against severe weather for students and parents.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	9
Estimated Cost:	\$200,000
Estimated Benefit:	\$1,200,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	24 months

Hazard(s) Addressed	Thunderstorms, Tornadoes
Action: Install impact-resistant doors and windows in current and future buildings.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	10
Estimated Cost:	\$200,000
Estimated Benefit:	\$1,200,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	18 months
Hazard(s) Addressed	Extreme Heat
Action: Install shade awnings at Ford High School softball, baseball, and tennis facilities.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	11
Estimated Cost:	\$250,000
Estimated Benefit:	\$1,500,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	18 months
Hazard(s) Addressed	Extreme Heat
Action: Install shade gazebos on playground facilities at Cannon Elementary and Butler Intermediate.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	12
Estimated Cost:	\$200,000
Estimated Benefit:	\$1,200,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	18 months
Hazard(s) Addressed	Drought, Expansive Soils
Action: Install irrigation systems with Smartscape for all QISD campus buildings.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	13
Estimated Cost:	\$600,000
Estimated Benefit:	\$3,600,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	24 months

Hazard(s) Addressed	Drought, Expansive Soils
Action: Install drought resistant plants and mulch at the entrances of all existing and future QISD facilities.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	14
Estimated Cost:	\$10,000
Estimated Benefit:	\$60,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	6 months
Hazard(s) Addressed	Wildfires
Action: Purchase a zero-turn mower to keep grass mowed to a short height on all school property.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	15
Estimated Cost:	\$15,000
Estimated Benefit:	\$90,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	6 months
Hazard(s) Addressed	Drought, Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Create a public education program to address the risks and mitigation actions for the identified hazards using social media, city website, local newspaper, and public outreach.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	16
Estimated Cost:	\$2,000
Estimated Benefit:	\$12,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	4 months

Hazard(s) Addressed	Wildfires
Action: Create firebreaks at Ford High School between campus buildings and adjoining properties with a gravel road.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	17
Estimated Cost:	\$30,000
Estimated Benefit:	\$180,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	12 months
Hazard(s) Addressed	Earthquakes, Expansive Soils
Action: Install flexible water and gas pipes at all existing and future QISD campuses.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	18
Estimated Cost:	\$60,000
Estimated Benefit:	\$3,600,000
Potential Funding Source(s):	Grants, local funds
Lead Agency/Department Responsible:	Facilities Management
Implementation Schedule:	18 months
Hazard(s) Addressed	Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Wildfires, Winter Storms
Action: Utilize Smartscape landscaping across all new and existing landscapes, to include native plants and shade trees.	
Participating Jurisdiction	Quinlan Independent School District
Priority:	19
Estimated Cost:	\$3,000,000
Estimated Benefit:	\$18,000,000
Potential Funding Source(s):	Local budget, grants
Lead Agency/Department Responsible:	Department of Public Works
Implementation Schedule:	24 months

City of West Tawakoni Mitigation Action Items

Hazard(s) Addressed	Flooding
Action: Provide NFIP education to residents through various means, including public outreach booths and social media.	
Participating Jurisdiction	City of West Tawakoni
Priority:	1
Estimated Cost:	\$1,000
Estimated Benefit:	\$6,000
Potential Funding Source(s):	Grants, Staff Time
Lead Agency/Department Responsible:	Administration
Implementation Schedule:	12 months
Hazard(s) Addressed	Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Retrofit existing city facilities to withstand natural hazards.	
Participating Jurisdiction	City of West Tawakoni
Priority:	2
Estimated Cost:	\$4,000,000
Estimated Benefit:	\$24,000,000
Potential Funding Source(s):	Grants, General Fund, Water Sewer Fund
Lead Agency/Department Responsible:	Administration
Implementation Schedule:	24 months
Hazard(s) Addressed	Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Future facilities will meet or exceed current building codes.	
Participating Jurisdiction	City of West Tawakoni
Priority:	3
Estimated Cost:	\$15,000,000
Estimated Benefit:	\$90,000,000
Potential Funding Source(s):	Grants, Water Sewer Fund, Staff Time, General Fund
Lead Agency/Department Responsible:	Administration, Public Works Department
Implementation Schedule:	24 months

Hazard(s) Addressed	Extreme Heat, Thunderstorms, Tornadoes, Winter Storms
Action: Create two community safe rooms (north end and south end) that can also act as cooling/heating stations.	
Participating Jurisdiction	City of West Tawakoni
Priority:	4
Estimated Cost:	\$50,000
Estimated Benefit:	\$300,000
Potential Funding Source(s):	Grants, General fund, Economic Development Corporation
Lead Agency/Department Responsible:	Administration
Implementation Schedule:	24 months
Hazard(s) Addressed	Thunderstorms, Tornadoes
Action: Create a locally sponsored safe room rebate program.	
Participating Jurisdiction	City of West Tawakoni
Priority:	5
Estimated Cost:	\$50,000
Estimated Benefit:	\$300,000
Potential Funding Source(s):	Grant, General fund
Lead Agency/Department Responsible:	Administration
Implementation Schedule:	24 months
Hazard(s) Addressed	Flooding
Action: Update and enhance drainage ditches in order to increase water capacity.	
Participating Jurisdiction	City of West Tawakoni
Priority:	6
Estimated Cost:	\$1,000,000
Estimated Benefit:	\$6,000,000
Potential Funding Source(s):	Grants, Staff Time
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 months
Hazard(s) Addressed	Earthquakes, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Purchase and install back-up generators for existing and future city infrastructure.	
Participating Jurisdiction	City of West Tawakoni
Priority:	7
Estimated Cost:	\$50,000
Estimated Benefit:	\$300,000
Potential Funding Source(s):	Grants, Water Sewer Fund, Depreciation Fund
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 months

Hazard(s) Addressed	Flooding
Action: Create a stormwater management system.	
Participating Jurisdiction	City of West Tawakoni
Priority:	8
Estimated Cost:	\$10,000,000
Estimated Benefit:	\$60,000,000
Potential Funding Source(s):	Grants, Staff Time, Water Sewer Fund
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 months
Hazard(s) Addressed	Drought, Expansive Soils, Earthquakes, Flooding
Action: Replace existing pipelines with flexible pipelines to prevent leaks and breaks if the ground shifts. Use flexible pipelines in future developments.	
Participating Jurisdiction	City of West Tawakoni
Priority:	9
Estimated Cost:	\$2,000,000
Estimated Benefit:	\$12,000,000
Potential Funding Source(s):	Grants, Staff Time
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	24 months
Hazard(s) Addressed	Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Wildfires, Winter Storms
Action: Utilize Smartscape landscaping across all new and existing landscapes, to include native plants and shade trees.	
Participating Jurisdiction	City of West Tawakoni
Priority:	10
Estimated Cost:	\$3,000,000
Estimated Benefit:	\$18,000,000
Potential Funding Source(s):	Local budget, grants
Lead Agency/Department Responsible:	Department of Public Works
Implementation Schedule:	24 months

City of Wolfe City Mitigation Action Items

Hazard(s) Addressed	Drought, Earthquakes, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Purchase and install emergency generators to critical facilities including, but not limited to, City Hall, Water Well, Wastewater Treatment Plant, and wastewater lift stations.	
Participating Jurisdiction	Wolfe City
Priority:	1
Estimated Cost:	\$80,000
Estimated Benefit:	\$480,000
Potential Funding Source(s):	General Fund, grants, local funding
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	24 months
Hazard(s) Addressed	Flooding
Action: Increase the capacity of the storm drainage system by installing larger culverts, cleaning waterways, and adding drainage points along vulnerable or critical roads.	
Participating Jurisdiction	Wolfe City
Priority:	2
Estimated Cost:	\$500,000
Estimated Benefit:	\$3,000,000
Potential Funding Source(s):	General Fund, grants, local funding, potential developer
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	24 months
Hazard(s) Addressed	Flooding
Action: Encourage homeowners to install backflow valves to prevent reverse-flow flood damages.	
Participating Jurisdiction	Wolfe City
Priority:	3
Estimated Cost:	\$ 500
Estimated Benefit:	\$ 3,000
Potential Funding Source(s):	Citizen funded, grants, city budget
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	24 months

Hazard(s) Addressed	Flooding
Action: Advise the public about the local flooding threat, the National Flood Insurance Program, and flood protection measures. Regular maintenance will help drainage systems and flood control structures continue to function properly.	
Participating Jurisdiction	Wolfe City
Priority:	4
Estimated Cost:	\$50,000
Estimated Benefit:	\$300,000
Potential Funding Source(s):	City budget
Lead Agency/Department Responsible:	Building Official
Implementation Schedule:	24 months
Hazard(s) Addressed	Extreme Heat, Thunderstorm, Tornadoes, Winter Storms
Action: Install energy-efficient, impact-resistant windows on existing and future municipal buildings.	
Participating Jurisdiction	Wolfe City
Priority:	5
Estimated Cost:	\$150,000
Estimated Benefit:	\$900,000
Potential Funding Source(s):	General Fund, grants, local funding
Lead Agency/Department Responsible:	City Hall Administration
Implementation Schedule:	24 months
Hazard(s) Addressed	Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Enhance the current public education program to address the risks and mitigation actions for the identified hazards using social media, city website, and public outreach.	
Participating Jurisdiction	Wolfe City
Priority:	6
Estimated Cost:	\$100
Estimated Benefit:	\$600
Potential Funding Source(s):	City budget, grants, local funding
Lead Agency/Department Responsible:	Fire Department
Implementation Schedule:	24 months

Hazard(s) Addressed	Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms
Action: Update and/or adopt the most current building code, residential code, mechanical code, plumbing code, and electrical code. Adopting the International Building Code (IBC) and International Residential Code (IRC).	
Participating Jurisdiction	Wolfe City
Priority:	7
Estimated Cost:	\$5,000
Estimated Benefit:	\$30,000
Potential Funding Source(s):	City budget, grants, local funding
Lead Agency/Department Responsible:	Building Official
Implementation Schedule:	24 months
Hazard(s) Addressed	Flooding
Action: Participate in the National Flood Insurance Program (NFIP).	
Participating Jurisdiction	Wolfe City
Priority:	8
Estimated Cost:	\$50,000
Estimated Benefit:	\$300,000
Potential Funding Source(s):	City budget
Lead Agency/Department Responsible:	Building Official
Implementation Schedule:	24 months
Hazard(s) Addressed	Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Wildfires, Winter Storms
Action: Utilize Smartscape landscaping across all new and existing landscapes, to include native plants and shade trees.	
Participating Jurisdiction	Wolfe City
Priority:	9
Estimated Cost:	\$3,000,000
Estimated Benefit:	\$18,000,000
Potential Funding Source(s):	Local budget, grants
Lead Agency/Department Responsible:	Department of Public Works
Implementation Schedule:	24 months

Hunt County Unincorporated Mitigation Action Items

Hazard(s) Addressed	
Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms	
Action: Purchase a back-up generator for County IT system.	
Participating Jurisdiction	Hunt County Unincorporated
Priority:	1
Estimated Cost:	\$24,000
Estimated Benefit:	\$144,000
Potential Funding Source(s):	County budget, grants
Lead Agency/Department Responsible:	Hunt County IT Department
Implementation Schedule:	12 months
Hazard(s) Addressed	
Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Wildfires, Winter Storms	
Action: Enhance the current public education program to address the risks and mitigation actions for the identified hazards using social media, city website, local newspaper, and public outreach.	
Participating Jurisdiction	Hunt County Unincorporated
Priority:	2
Estimated Cost:	\$1,000
Estimated Benefit:	\$6,000
Potential Funding Source(s):	County budget, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	24 months
Hazard(s) Addressed	
Flooding	
Action: Require and maintain FEMA elevation certificates for all new and improved buildings located in floodplains to comply with NFIP standards.	
Participating Jurisdiction	Hunt County Unincorporated
Priority:	3
Estimated Cost:	\$600
Estimated Benefit:	\$3,600
Potential Funding Source(s):	County budget, grants
Lead Agency/Department Responsible:	Hunt County Health (floodplain management)
Implementation Schedule:	24 months

Hazard(s) Addressed	Earthquakes, Thunderstorms, Tornadoes
Action: Encourage the construction and use of safe rooms in homes, mobile home parks, campgrounds, shopping centers, or other vulnerable public structures/areas.	
Participating Jurisdiction	Hunt County Unincorporated
Priority:	4
Estimated Cost:	\$200
Estimated Benefit:	\$1,200
Potential Funding Source(s):	County budget, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	24 months
Hazard(s) Addressed	Wildfire
Action: Develop a Community Safety Committee Report that addresses how best to address the annual threat of wildfires.	
Participating Jurisdiction	Hunt County Unincorporated
Priority:	5
Estimated Cost:	\$2,000
Estimated Benefit:	\$12,000
Potential Funding Source(s):	County budget, grants
Lead Agency/Department Responsible:	Hunt County Fire Marshal
Implementation Schedule:	24 months
Hazard(s) Addressed	Flooding, Wildfires
Action: Purchase and use drone or UAS technology for reconnaissance to detect hot spots and identify floodplains, the stability of dams, and potential threats to critical facilities and personnel. The technology could also assist in conducting damage assessments.	
Participating Jurisdiction	Hunt County Unincorporated
Priority:	6
Estimated Cost:	\$100,000
Estimated Benefit:	\$600,000
Potential Funding Source(s):	County budget, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	24 months

Hazard(s) Addressed	Drought, Expansive Soils
Action: Establish a regular schedule to monitor and report drought conditions on a monthly basis.	
Participating Jurisdiction	Hunt County Unincorporated
Priority:	7
Estimated Cost:	\$600
Estimated Benefit:	\$3,600
Potential Funding Source(s):	County budget, grants
Lead Agency/Department Responsible:	Office of Emergency Management
Implementation Schedule:	24 months
Hazard(s) Addressed	Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Thunderstorms, Wildfires, Winter Storms
Action: Utilize Smartscape landscaping across all new and existing landscapes, to include native plants and shade trees.	
Participating Jurisdiction	Hunt County Unincorporated
Priority:	8
Estimated Cost:	\$3,000,000
Estimated Benefit:	\$18,000,000
Potential Funding Source(s):	County budget, grants
Lead Agency/Department Responsible:	County Commissioners
Implementation Schedule:	24 months

4.6 Incorporation into Existing Planning Mechanisms

Based on Requirement 201.6(c)(4)(ii) and the State of Texas Mitigation Plan, the vulnerability and capabilities assessment for the town were carefully reviewed and considered when developing the mitigation actions for this plan. The Local Planning Team (LPT) will establish a process in which the mitigation strategy, goals, objectives, and actions outlined in this plan will be incorporated into the existing local planning strategies. At this time, the HazMAP has not been formally integrated into existing planning mechanisms.

Once the plan is adopted, the LPT will coordinate implementation with the responsible parties in the town, as well as external stakeholders as needed.

The following steps will be taken in implementing this HazMAP into local plans:

1. Change is proposed by an elected official or other interested party.
2. Proposal is placed on the local agenda of the governing body.
3. Agenda is published at least 10 days in advance of the meeting at which it will be discussed, so members of the public have an opportunity to attend the discussion meeting. Publication may be made by posting the agenda on the city's website, in the city newsletter, or on a public bulletin board.

4. Proposal is discussed at the planning meeting, including any comments by members of the public attendance.
5. Proposal is voted on by the governing body.
6. If the proposal is passed, the change is implemented by the appropriate party.

Planning mechanisms in which the HazMAP will be integrated are listed below.

Jurisdiction	Type of Plan or Activity	Department Responsible	Update Schedule	Actions to be Integrated
Caddo Mills	Emergency Operations Plan	Office of Emergency Management	Annually	Reference this HazMAP when developing the plan.
Commerce	Drought Contingency Plan	Public Utilities Department/City Administration	Every 5 years	Reference this HazMAP when developing the plan.
Greenville	Emergency Operations Plan	Emergency Management	Annually	Reference this HazMAP when developing the plan.
Greenville	Comprehensive Plan	Planning, Zoning, and Public Works Departments	Annually	Reference this HazMAP when developing the plans for critical infrastructure and resources.
Greenville	Stormwater Management Plan	Public Works Department	Annually	Reference the HazMAP when developing plans for managing stormwater
Lone Oak	Capital Improvement Plan	City Council	Every 10 years	Reference this HazMAP when developing the plan.
Lone Oak	Comprehensive Plan	City Council	Annually	Reference this HazMAP when developing the plan.
Quinlan	Capital Improvement Plan	City Administration	Every 10 years	Reference this HazMAP when developing the plan.
Quinlan	Comprehensive Plan	Planning, Zoning, and Public Works Departments	Annually	Reference this HazMAP when developing the plans for critical infrastructure and resources.
Quinlan	Development Standards	City Administration, Public Works Department, and Building Services	Every 10 years	Reference This HazMAP when developing the plan.

Jurisdiction	Type of Plan or Activity	Department Responsible	Update Schedule	Actions to be Integrated
Quinlan ISD	Emergency Operations Plan	Quinlan ISD Police Department	Annually	Reference this HazMAP when developing the plan.
West Tawakoni	Drought Contingency Plan	City Administration	Every 5years	Reference this HazMAP when developing the plan.
Wolfe City	Capital Improvement Plan	City Administration	Every 10 years	Reference this HazMAP when developing the plan.
Wolfe City	Comprehensive Plan	Planning, Zoning, and Public Works Departments	Annually	Reference this HazMAP when developing the plans for critical infrastructure and resources.
Wolfe City	Water System Improvements Plan	Public Works Department	Annually	Reference this HazMAP when developing the plan.
Hunt County Unincorporated	Hunt County Subdivision Plan	Commissioner Court	Every 5years	Reference this HazMAP when developing the plan.
Hunt County Unincorporated	Hunt County Emergency Operation Plan	Office of Emergency Management	Annually	Reference this HazMAP when developing the plan.

Although it is recognized that there are many possible benefits to integrating components of this Hazard Mitigation Action Plan (HazMAP) into other planning mechanisms, the participating jurisdictions consider this HazMAP, including development and maintenance, to be the primary vehicle to ensure implementation of local hazard mitigation actions.

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Chapter 5: Conclusion

Through the development of this plan, Hunt County has developed a thorough hazard history, an inventory of critical facilities, and an assessment of their current capabilities. This data, when used in conjunction with the updated information about hazard threats and vulnerabilities, will prove to be invaluable to Hunt County and its participating jurisdictions.

Natural hazards have been identified county-wide and technological hazards have been listed for selected jurisdictions that opted to include these hazards. Mitigation projects that could reduce the risk of lives and property due to the identified threats have been compiled and prioritized.

The creation of the Hunt County Hazard Mitigation Planning Team (HMPT) brought together stakeholders from communities and organizations onto one planning team. This group has been able to work together effectively and efficiently to produce this document and establish a greater awareness of risks and mitigation strategies.

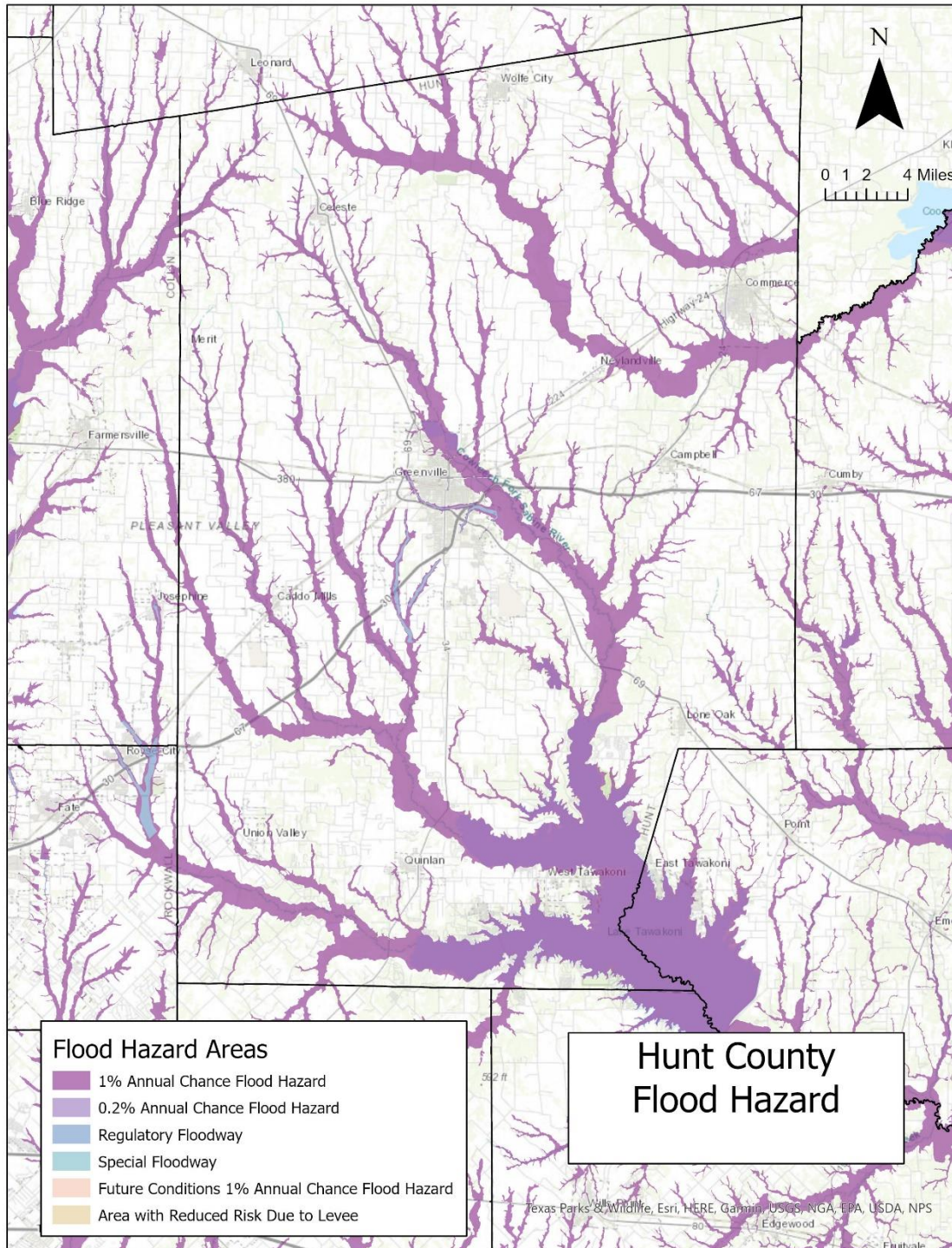
In addition to the HMPT, the creation of the Local Planning Team (LPT) in each jurisdiction brought together stakeholders and departments within the jurisdiction onto one planning team. This group was able to work together effectively and efficiently to produce jurisdictional data for this document and establish a greater awareness of risks and mitigation strategies.

This plan will continue to evolve as necessary to properly represent the threats and vulnerabilities affecting Hunt County. Continued public participation is encouraged and will continue through the ongoing multijurisdictional hazard mitigation process. The plan, in its entirety (not limited to but including development, public participation, hazard identification, and mitigation actions), will continue to be monitored and evaluated.

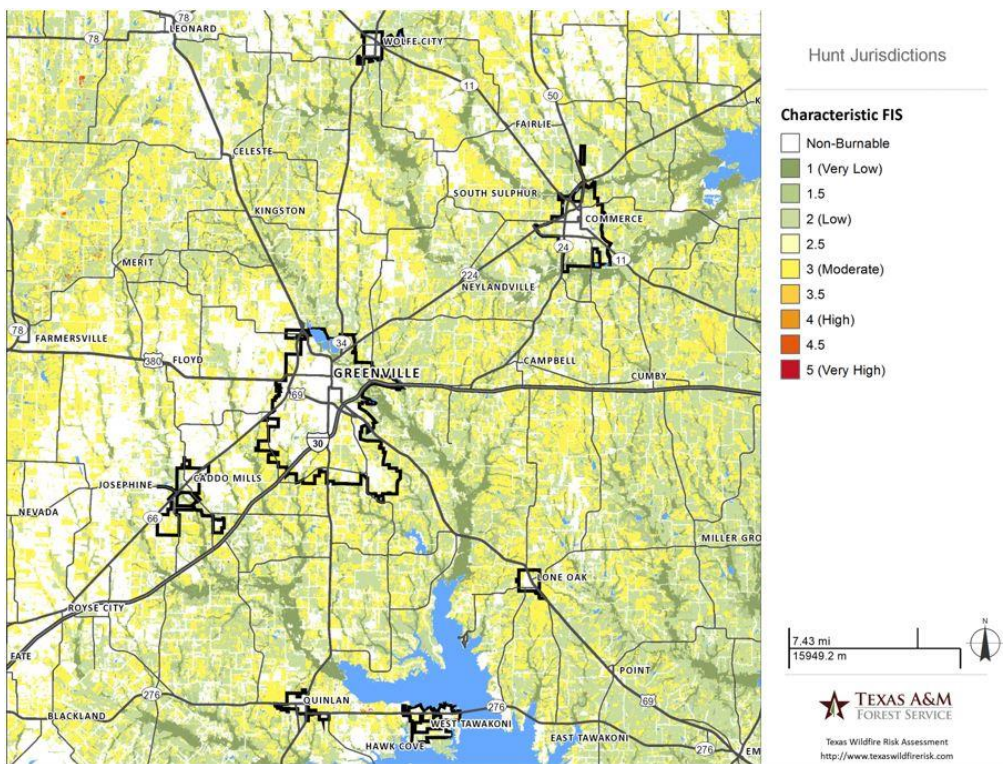
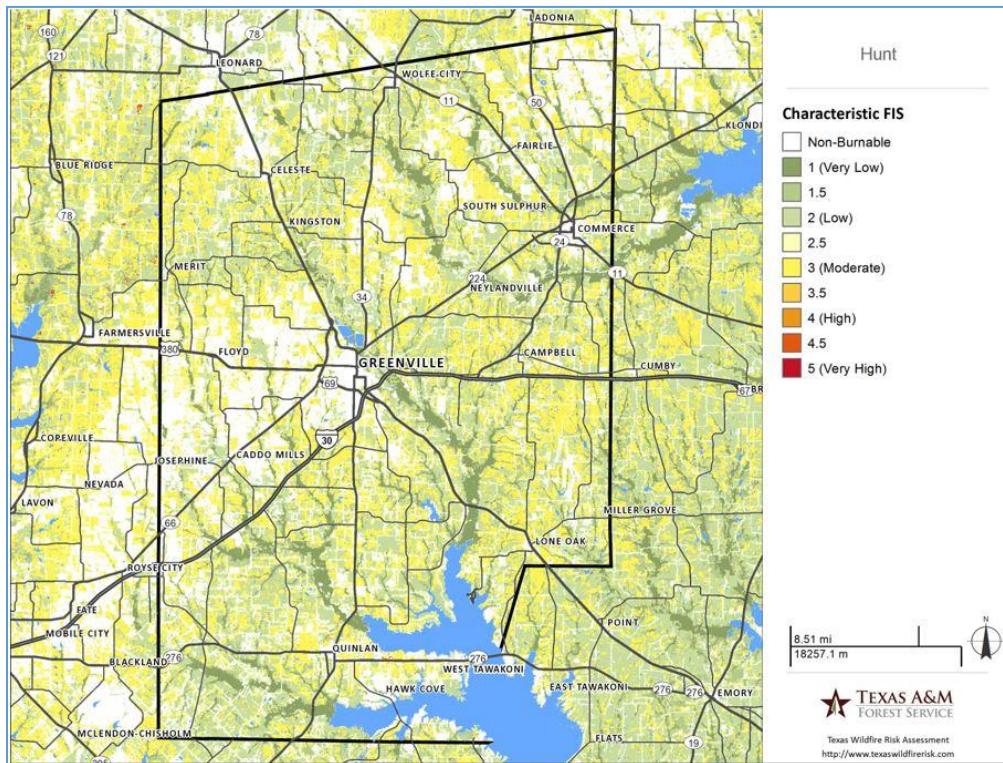
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Appendix A: Maps & Tables

Hunt County Flood Hazard Map

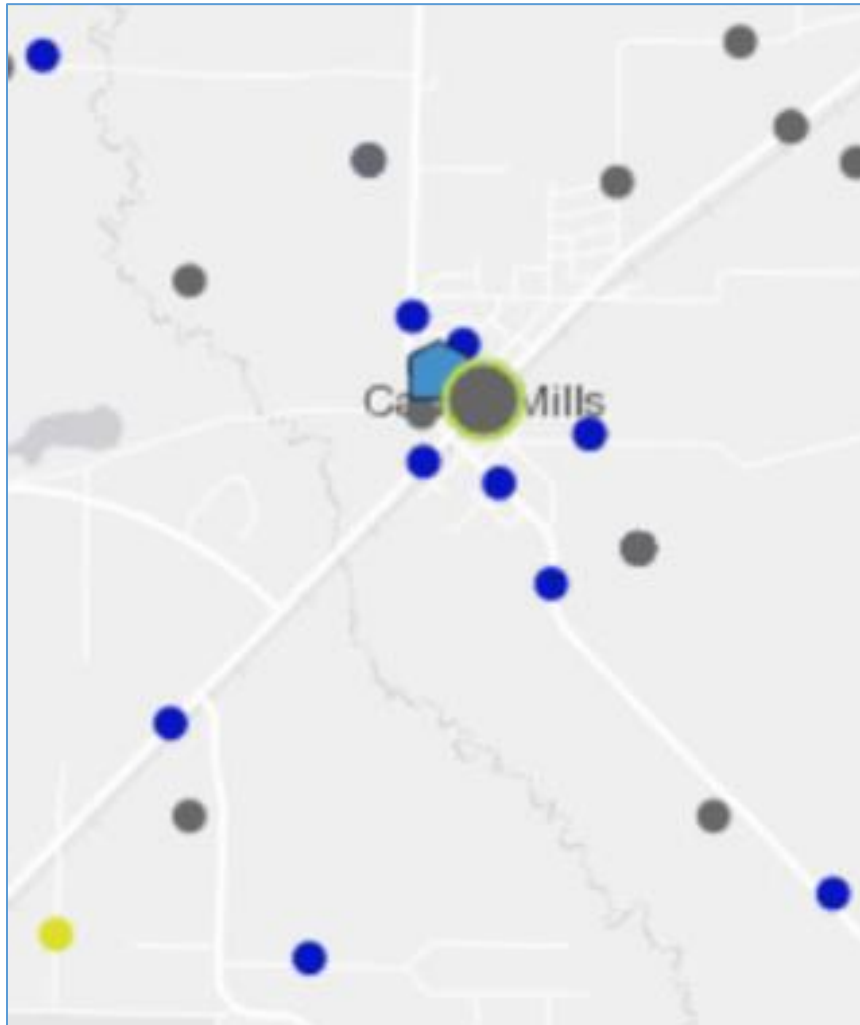


Hunt County Fire Intensity Scale Map



City of Caddo Mills

Wildfire Ignitions, 2005-2015



Wildfire Ignitions

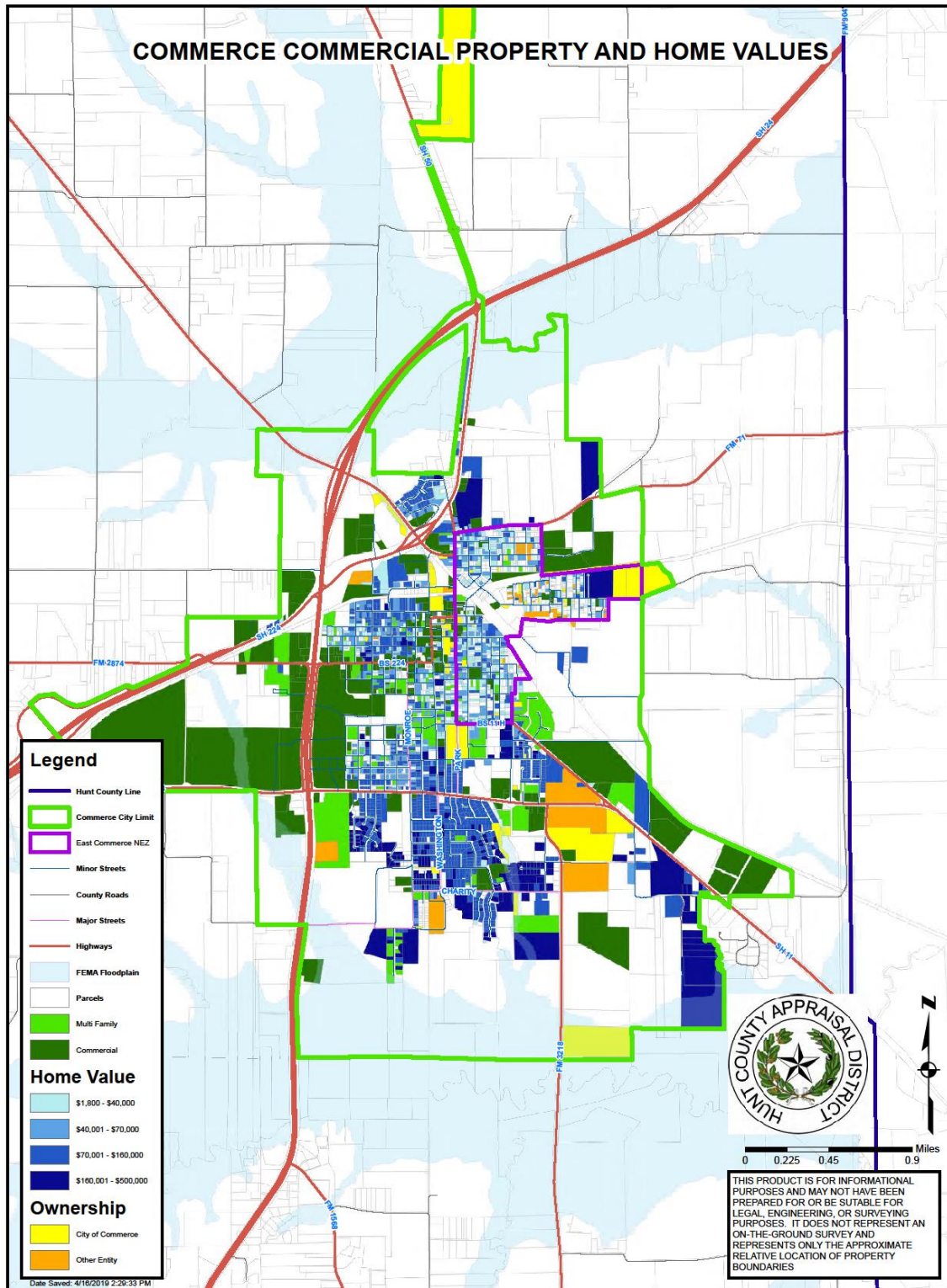
Cause	Cause
Incendiary	Railroads
Lightning	Power Lines
Campfire	Children
Smoking	Debris Burning
Fireworks	Structure
Equipment User	Miscellaneous

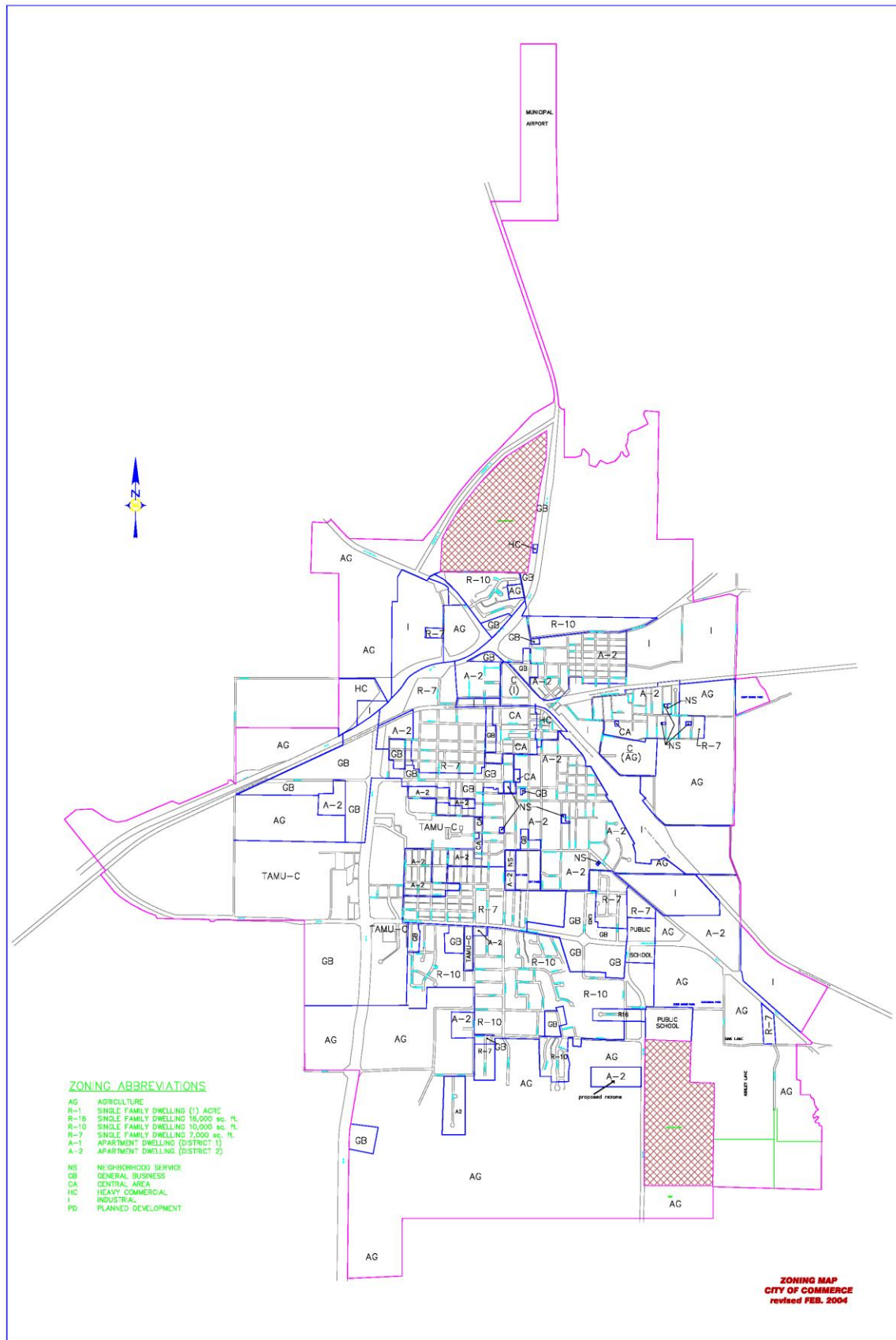
Source: [Texas A&M Forest Service](#)

Caddo Mills Critical and Vulnerable Facility & Infrastructure Table

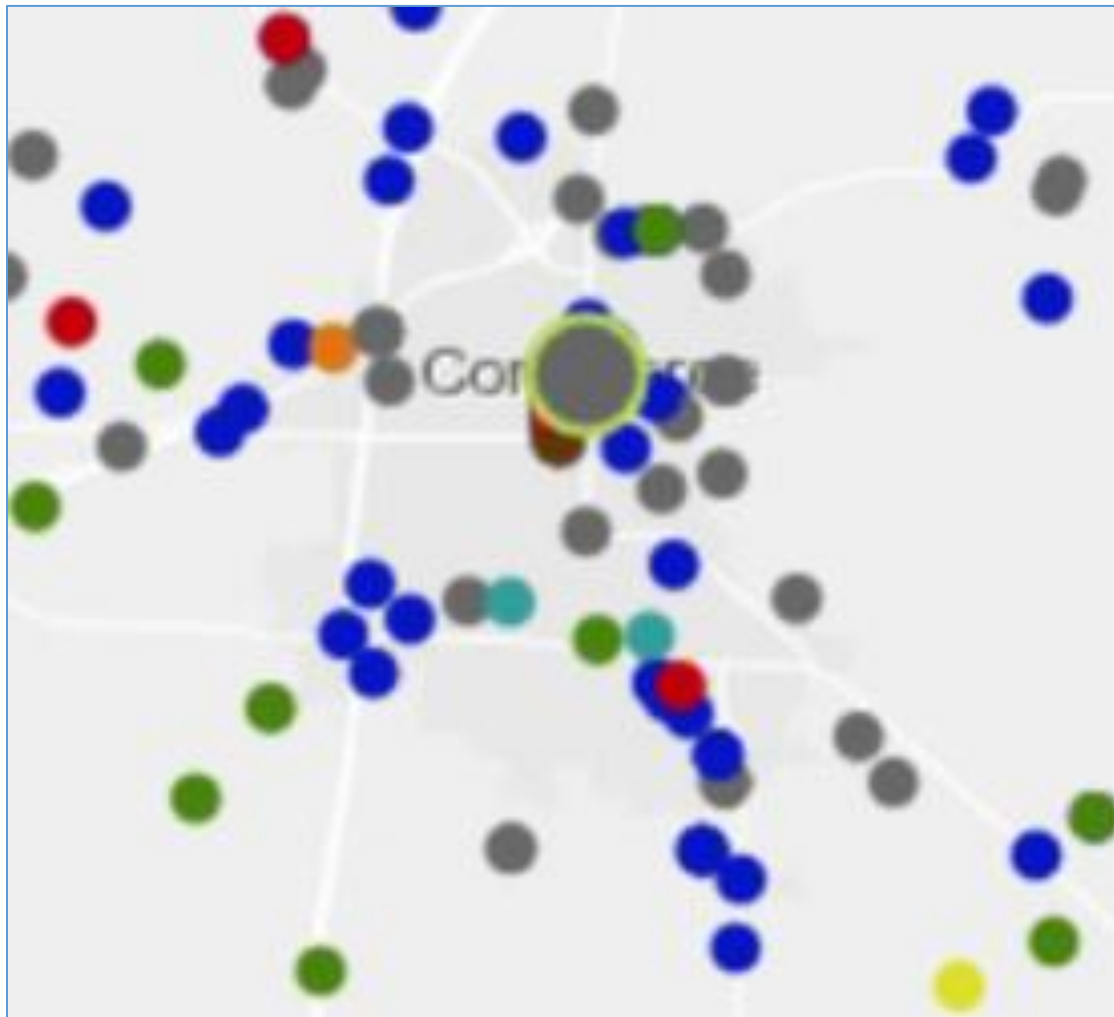
At Risk To: (Yes (Y) or No (N))								Caddo Mills Critical and Vulnerable Facility and Infrastructure Inventory	
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address
Y	N	Y	Y	Y	Y	Y	Y	Caddo Mills Independent School District	100 Fox Lane
Y	N	Y	Y	Y	Y	Y	Y	Explored pipeline	N/A
Y	N	Y	Y	Y	Y	Y	Y	Interstate 30	N/A
Y	N	Y	Y	Y	Y	Y	Y	Switch station ONCOR	
Y	N	Y	Y	Y	Y	Y	Y	Switch station ATMOS	
Y	N	Y	Y	Y	Y	Y	Y	Sewer Plant	3636 FM 36
Y	N	Y	N	Y	Y	Y	Y	City Hall/Municipal Court	2313 Main Street
Y	N	Y	N	Y	Y	Y	Y	Police Station	2309 Main Street

City of Commerce





Wildfire Ignitions, 2005-2015



Wildfire Ignitions

Cause	Cause
Incendiary	Railroads
Lightning	Power Lines
Campfire	Children
Smoking	Debris Burning
Fireworks	Structure
Equipment User	Miscellaneous

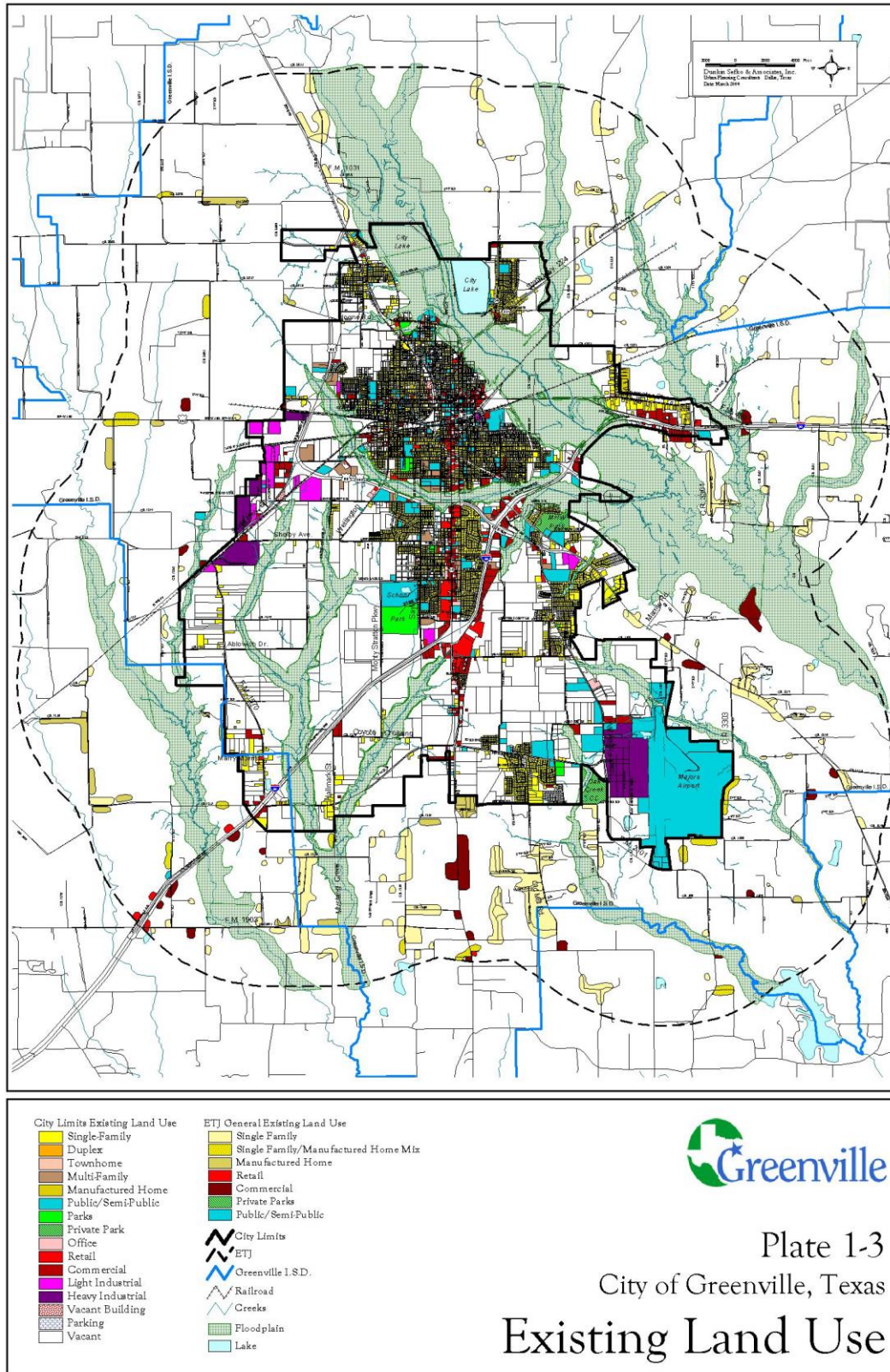
Source: [Texas A&M Forest Service](#)

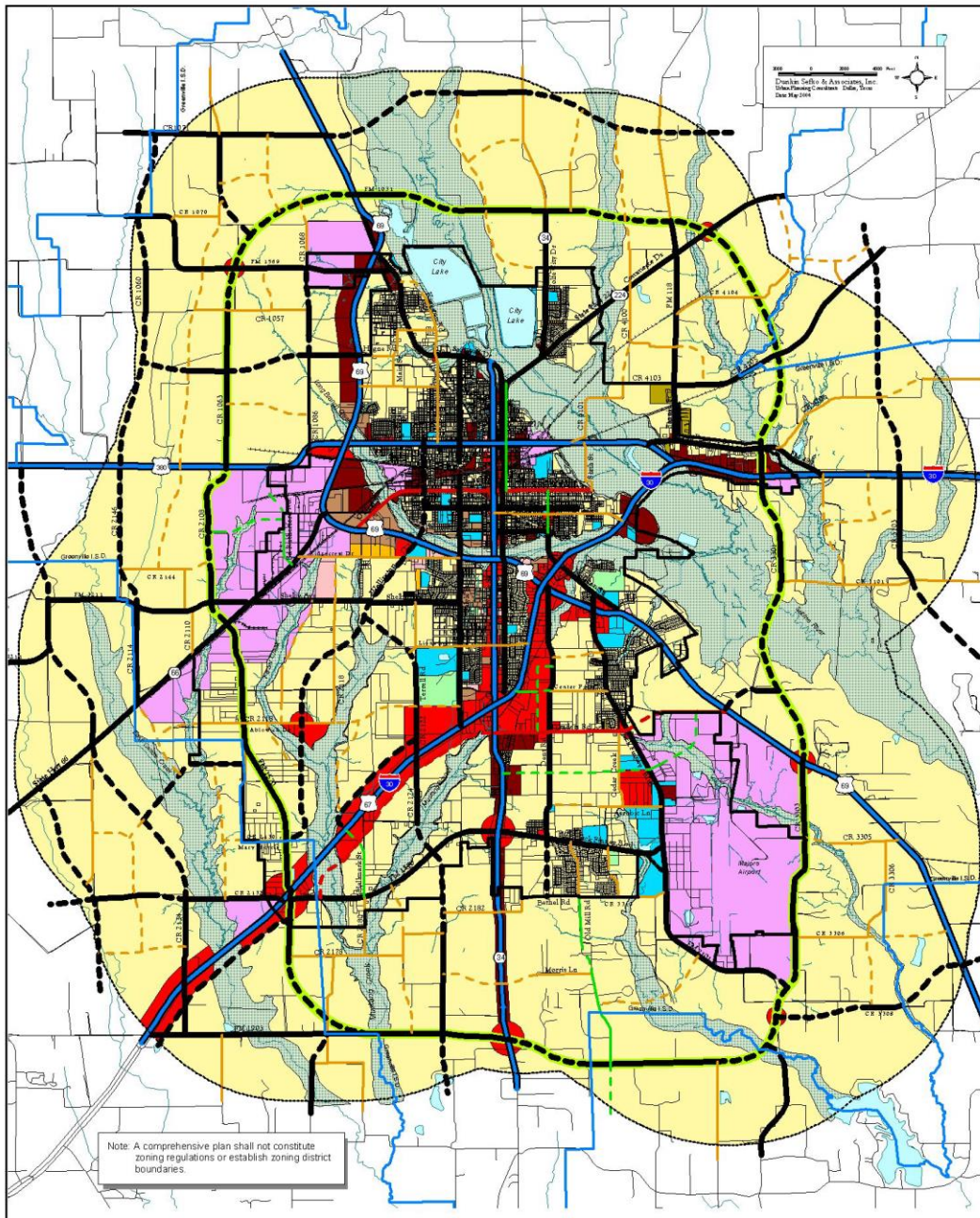
Commerce Critical and Vulnerable Facility & Infrastructure Table

At Risk To: (Yes (Y) or No (N))								Commerce Critical and Vulnerable Facility and Infrastructure Inventory			
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address	Square Feet	Structure Value
Y	Y	Y	Y	Y	Y	Y	Y	City Hall	1119 Alamo Street	16,194	\$3,257,290
Y	Y	Y	N	Y	Y	Y	Y	Police & Fire Station	1103 Sycamore Street	35,125	\$3,565.730
Y	Y	Y	N	Y	Y	Y	Y	Former Fire Station	1100 Block of College Street	3,968	\$193,940
Y	Y	Y	N	Y	Y	Y	Y	Animal Shelter	1203 O'Neal Street	3,744	\$268,910
Y	Y	Y	N	Y	Y	Y	Y	Service Center	700 Washington Street	4,500	\$100,690
Y	Y	Y	Y	Y	Y	Y	Y	City Park	1907 Park Street	6.8871 acres	\$66,000.00
Y	Y	Y	N	Y	Y	Y	Y	Commerce High School	3800 Sregit Drive	6,361,502.40 /146 acres	\$21,000,000
Y	Y	Y	N	Y	Y	Y	Y	Commerce Middle School	606 Culver Street	76,899	\$2,518.820
Y	Y	Y	N	Y	Y	Y	Y	Commerce Elementary School	2900 FM3218	50,084	\$3,839,780
Y	Y	Y	N	Y	Y	Y	Y	A.C. Williams Elementary School	615 Culver Street	17,880	\$11,270,890
Y	Y	Y	Y	Y	Y	Y	Y	Texas A&M University-Commerce	2200 Campbell	Unknown	Unknown
Y	Y	Y	N	Y	Y	Y	Y	Oak Manor Nursing Home	2901 Sterling Hart	34,645	\$1,000,000
Y	Y	Y	N	Y	Y	Y	Y	Commerce ISD Administration	3315 Washington Street	Unknown	Unknown

At Risk To: (Yes (Y) or No (N))								Commerce Critical and Vulnerable Facility and Infrastructure Inventory			
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address	Square Feet	Structure Value
Y	Y	Y	N	Y	Y	Y	Y	Former Covidien Building	400 Maple Street	10,592	\$930,880.00
Y	Y	Y	N	Y	Y	Y	Y	Commerce Emergency Room	2800 State Hwy 24	Unknown	\$12,000,000
Y	Y	Y	N	Y	Y	Y	Y	Walmart	2701 State Hwy 50	109,538	\$6,384,280
Y	Y	Y	N	Y	Y	Y	Y	Brookshires	1603 Culver Street	Unknown	\$1,000,320
Y	Y	Y	N	Y	Y	Y	Y	Fix & Feed	2550 Mangum Street	Unknown	\$870,150
Y	Y	Y	N	Y	Y	Y	Y	Country Home Estates	2927 Monroe Street	16,072	\$1,315,280
Y	Y	Y	N	Y	Y	Y	Y	First United Methodist Church	1709 Sate Hwy 50	Around 40,000	\$2,187.250
Y	Y	Y	N	Y	Y	Y	Y	First Baptist Church	1401 Washington Street	Unknown (not on Hunt CAD)	Unknown
Y	Y	Y	N	Y	Y	Y	Y	Presbyterian Church	1216 Monroe Street	6,750	\$930,880

City of Greenville





Future Land Use Legend

- Low Density Residential
- High Density Residential
- Manufactured Homes
- Public/Semi-Public
- Parks & Open Space
- Office
- Central Business District
- Retail
- Commercial
- Industrial
- Floodplain
- Lake
- City Limits
- ETJ
- Greenville I.S.D.

Thoroughfare Legend

- Highway
- Type A: Major Arterial
- Type A: Proposed Loop
- Type A: Proposed Major Arterial
- Type B: Minor Arterial
- Type B: Proposed Minor Arterial
- Type C: Commercial Collector
- Type C: Commercial Proposed Collector
- Type D: Residential Collector
- Type D: Residential Proposed Collector

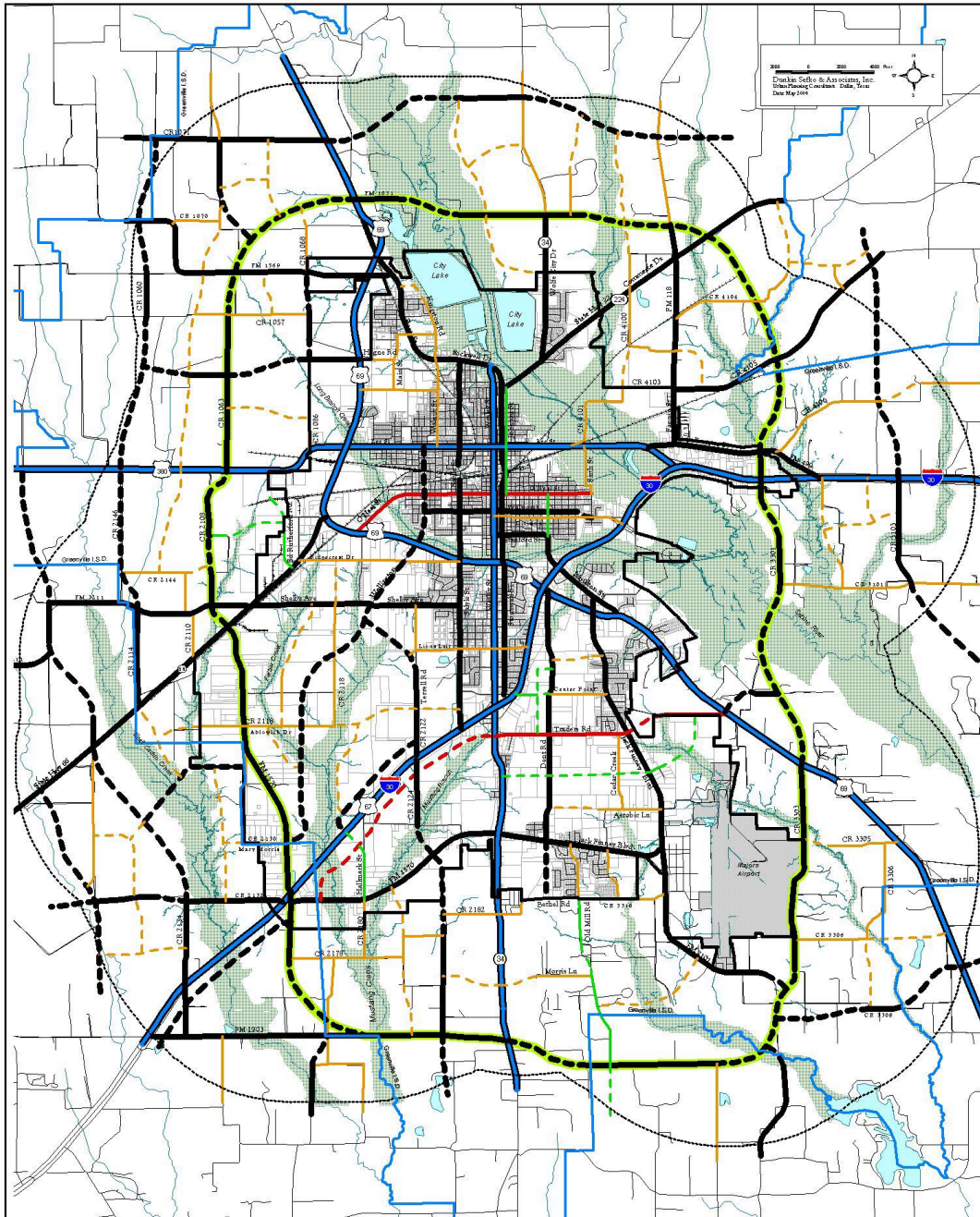
- Railroad
- Creeks



Plate 3-1

City of Greenville, Texas

Future Land Use Plan



Thoroughfare Legend

- Highway
- Type A: Major Arterial
- Type A: Proposed Loop
- Type A: Proposed Major Arterial
- Type B: Minor Arterial
- Type B: Proposed Minor Arterial
- Type C: Commercial Collector
- Type C: Commercial Proposed Collector
- Type D: Residential Collector
- Type D: Residential Proposed Collector

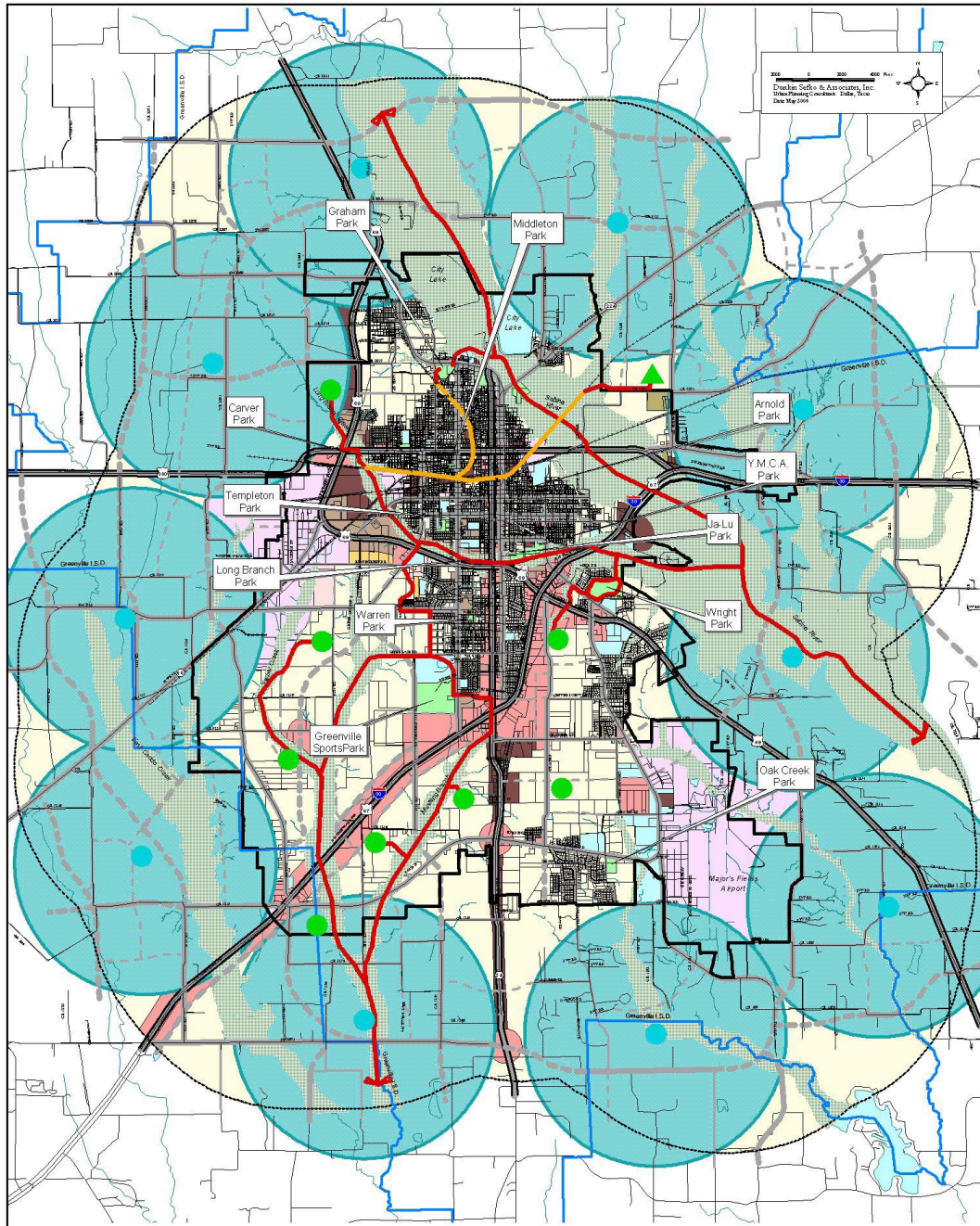
- City Limits
- ETJ
- Greenville I.S.D.
- Railroad
- Creeks
- Floodplain
- Lake



Plate 4-3

City of Greenville, Texas

Thoroughfare Plan



Future Parks Legend

- Neighborhood Park
- ▲ Community Park
- Neighborhood Park (ETJ)
- Neighborhood Park Area (1 1/2 mile)
- Trail System
- "Rail with Trail"

Future Land Use Legend

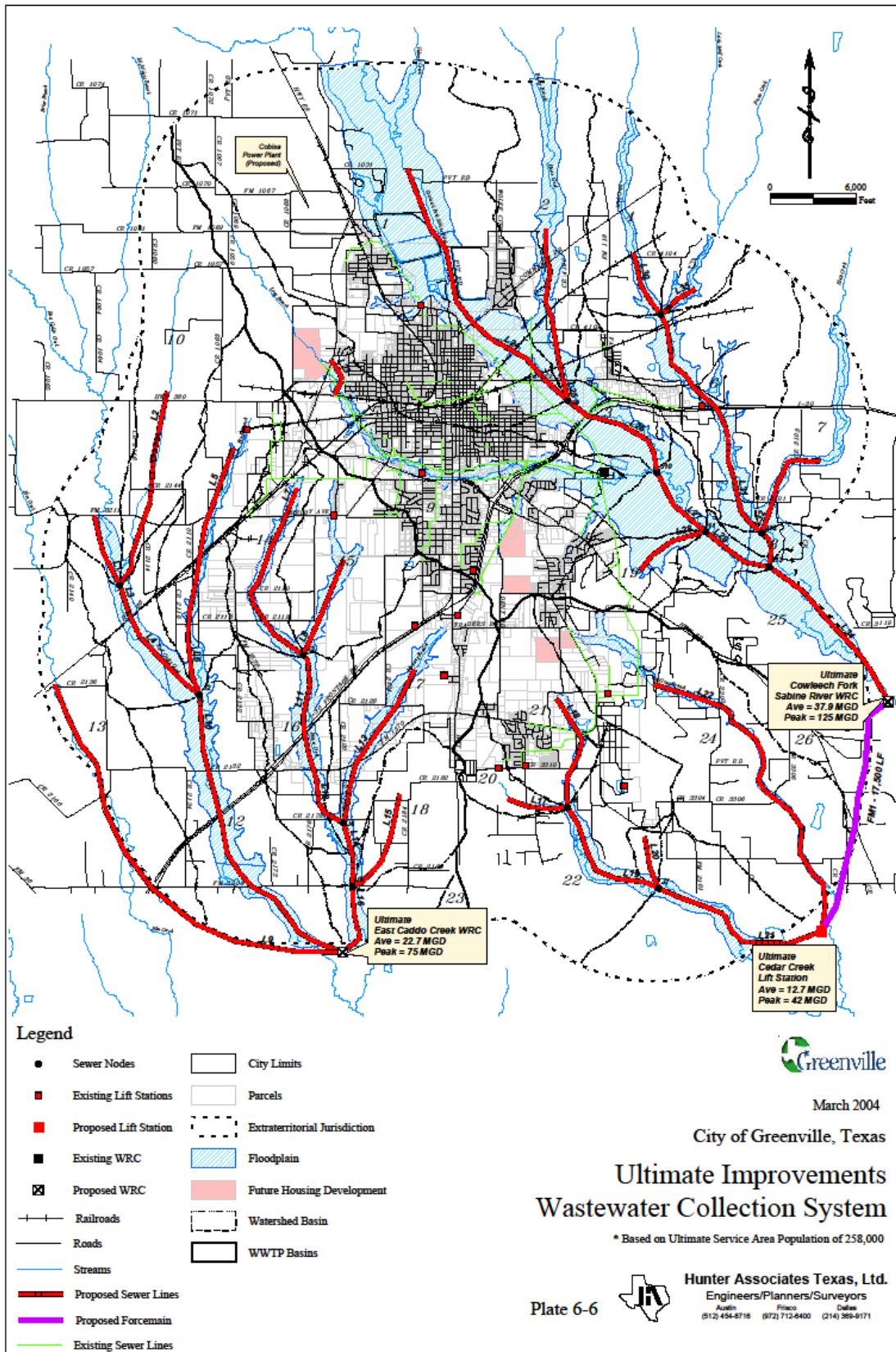
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Manufactured Homes
- Public/Semi-Public
- Parks & Open Space
- Office
- Central Business District
- Retail
- Commercial
- Industrial
- Floodplain
- Lake

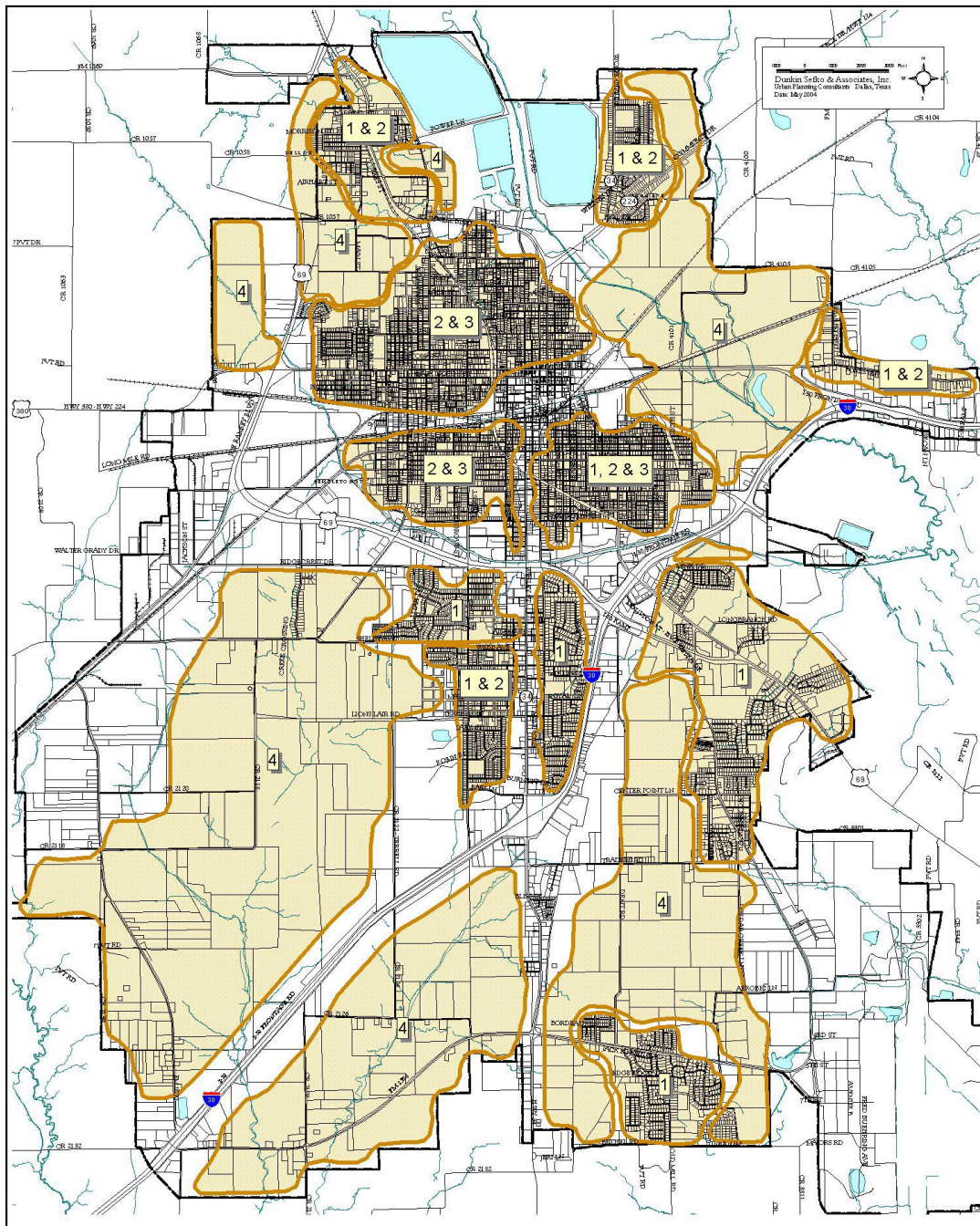
Thoroughfare Legend

- Highway
- Major Arterial
- Major Arterial (proposed)
- Collector
- Collector (proposed)
- City Limits
- ETJ
- Greenville I.S.D.
- Railroad
- Creeks



Plate 5-2 City of Greenville, Texas Future Parks Plan






Legend

- 1 - Neighborhood Preservation
- 2 - Housing Rehabilitation & Maintenance
- 3 - Clearance and/or Redevelopment
- 4 - Development Guidance

 Greenville City Limits

 Railroad

 Creeks

 Lake

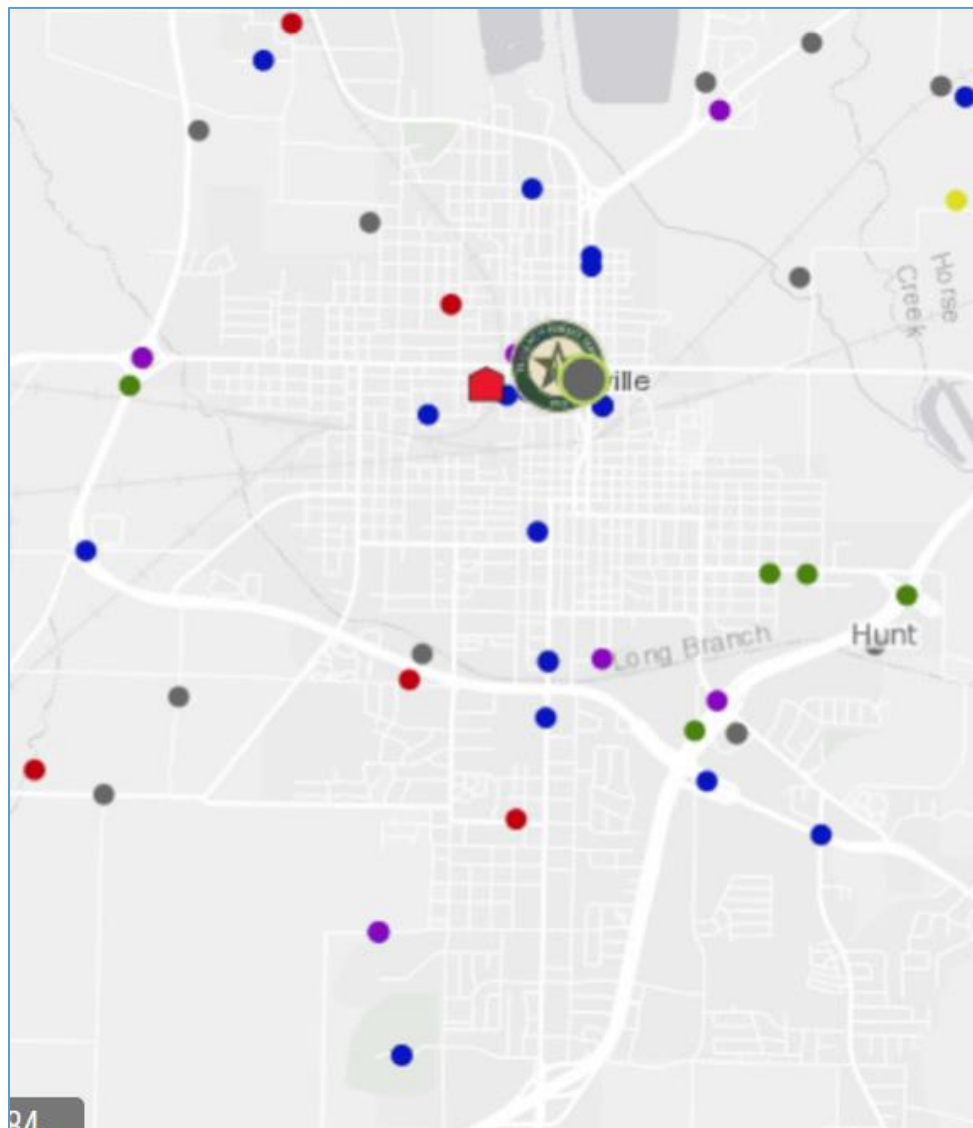


Plate 9-1

City of Greenville, Texas

Housing Strategies

Wildfire Ignitions, 2005-2015



Wildfire Ignitions

Cause	Cause
Incendiary	Railroads
Lightning	Power Lines
Campfire	Children
Smoking	Debris Burning
Fireworks	Structure
Equipment User	Miscellaneous

Source: [Texas A&M Forest Service](#)

Greenville Critical and Vulnerable Facility & Infrastructure Table

At Risk To: (Yes (Y) or No (N))								Greenville Critical and Vulnerable Facility and Infrastructure Inventory				
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address	Capacity	Square Feet	Structure Value
Y	Y	Y	Y	Y	Y	Y	Y	Animal Shelter	5800 Joe Ramsey Boulevard	25	6,706	428,200
Y	Y	Y	N	Y	Y	Y	Y	Annex Building	2315 Johnson Street	75	41,688	1,440,750
Y	Y	Y	N	Y	Y	Y	Y	City Hall	2821 Washington Street	18,000	53,000	8,167,830
Y	Y	Y	N	Y	Y	Y	Y	Civic Center	5403 Business Hwy 69 South	200	15,000	3,000,000
Y	Y	Y	N	Y	Y	Y	Y	County Courthouse	2507 Washington Street	400	81,021	12,039,680
Y	Y	Y	Y	Y	Y	Y	Y	County Jail	2801 Stuart Street	200	144,437	22,428,840
Y	Y	Y	N	Y	Y	Y	Y	Exchange Building	2500 Stonewall Street	300	48,816	4,811,640
Y	Y	Y	N	Y	Y	Y	Y	Fire Administration	2603 Templeton Street	20	4,062	47,950
Y	Y	Y	N	Y	Y	Y	Y	Fire Station #1	2300 Jordan Street	20	5,700	1,068,830
Y	Y	Y	N	Y	Y	Y	Y	Fire Station #2	4908 Lee Street	20	6,630	553,290
Y	Y	Y	Y	Y	Y	Y	Y	Fire Station #3	3401 Leo Hackney Boulevard	20	5,806	750,000
Y	Y	Y	N	Y	Y	Y	Y	Fire Station #4	7501 Jack Finney	20	4,800	328,150
Y	Y	Y	Y	Y	Y	Y	Y	Forest Park Cemetery	5401 Business Hwy 69 S	N/A		
Y	Y	Y	Y	Y	Y	Y	Y	Greenville Sports Park	3601 Leo Hackney Boulevard	10	2,200	275,000
Y	Y	Y	N	Y	Y	Y	Y	Library	1 Lou Finney Boulevard	100	21,289	1,362,450
Y	Y	Y	N	Y	Y	Y	Y	Majors Field	101 Majors Road	20	2,800	800,000

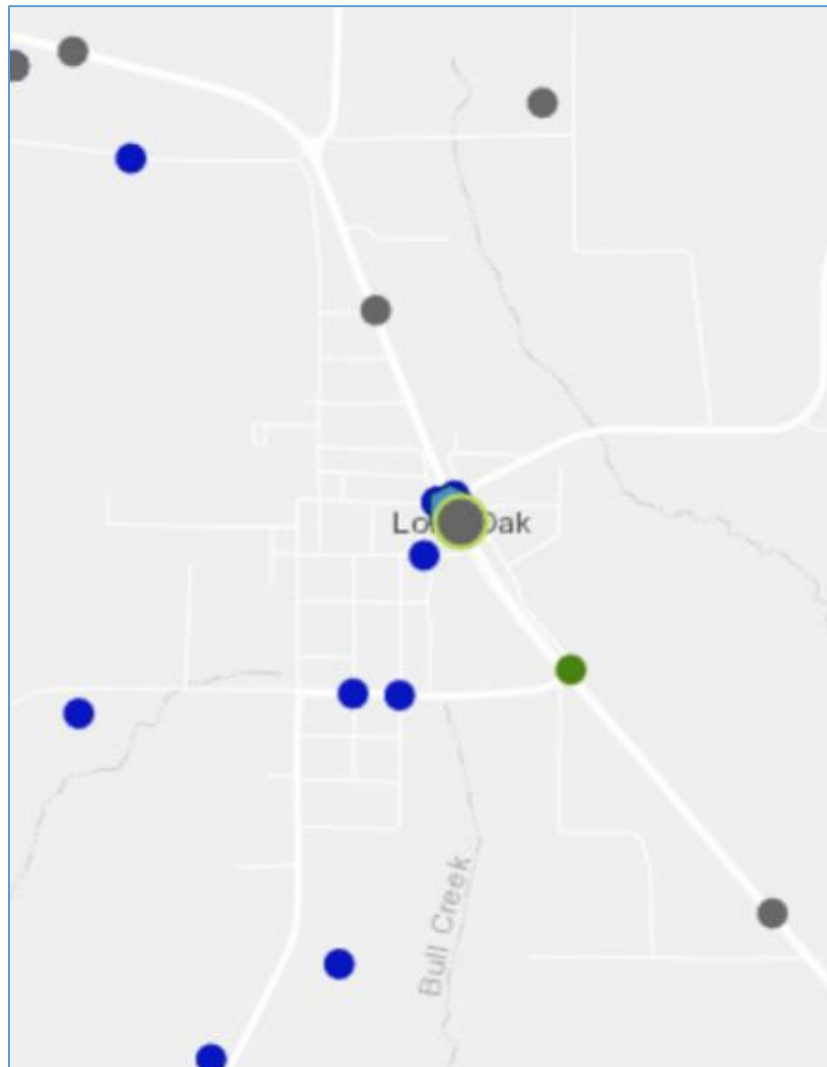
At Risk To: (Yes (Y) or No (N))								Greenville Critical and Vulnerable Facility and Infrastructure Inventory				
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address	Capacity	Square Feet	Structure Value
Y	Y	Y	N	Y	Y	Y	Y	National Guard Armory	9314 Jack Finney Boulevard	500	25,235	1,400,000
Y	Y	Y	N	Y	Y	Y	Y	Police Station	3000 Lee Street	100	33,668	3,594,910
Y	Y	Y	N	Y	Y	Y	Y	Post Office 1	6305 Wesley Street	50	2,400	85,000
Y	Y	Y	N	Y	Y	Y	Y	Post Office 2	2810 Wesley Street	20	11,608	204,580
Y	Y	Y	N	Y	Y	Y	Y	Recreation Center	4320 Lee Street	100	18,332	2,056,400
Y	Y	Y	N	Y	Y	Y	Y	Service Center	710 Clark Street	20	3,120	180,000
Y	Y	Y	Y	Y	Y	Y	Y	East Mount Cemetery	1615 Marshall Street	N/A	N/A	N/A
Y	Y	Y	Y	Y	Y	Y	Y	Bowie Elementary School	6005 Stonewall	500	58,000	4,968,000
Y	Y	Y	Y	Y	Y	Y	Y	Carver Elementary School	2504 Carver Street	500	47,875	5,600,000
Y	Y	Y	Y	Y	Y	Y	Y	Crockett Elementary School	1316 Wolfe City Drive	350	54,040	2,039,000
Y	Y	Y	Y	Y	Y	Y	Y	Greenville Christian School	8240 FM 1570	350	28,000	3,208,650
Y	Y	Y	Y	Y	Y	Y	Y	Greenville High School	3515 Lions Lair Road	1100	300,000	27,054,950
Y	Y	Y	Y	Y	Y	Y	Y	Greenville Middle School	3500 Travis Street	700	118,000	10,216,000
Y	Y	Y	Y	Y	Y	Y	Y	Greenville Intermediate School	3001 Stanford Street	300	130,000	7,224,720
Y	Y	Y	Y	Y	Y	Y	Y	Lamar Elementary School	6321 Jack Finney Boulevard	500	87,000	10,000,000

At Risk To: (Yes (Y) or No (N))								Greenville Critical and Vulnerable Facility and Infrastructure Inventory				
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address	Capacity	Square Feet	Structure Value
Y	Y	Y	Y	Y	Y	Y	Y	Paris Jr College	6500 Monty Stratton Parkway	800	21,758	10,345,700
Y	Y	Y	Y	Y	Y	Y	Y	Phoenix Charter School	8501 Jack Finney Boulevard	750	30,000	933,000
Y	Y	Y	Y	Y	Y	Y	Y	Fritz Industries	7121 Shelby Avenue	200	1,040,000	17,223,540
Y	Y	Y	Y	Y	Y	Y	Y	Rhino Lining	1001 Ed Rutherford Road	200	286,715	6,292,170
Y	Y	Y	Y	Y	Y	Y	Y	FSTI	341 Long Mile Road	100	25,000	1,957,450
Y	Y	Y	Y	Y	Y	Y	Y	Royal Oak Enterprises	6202 Industrial	100	175,120	1,453,150
Y	Y	Y	Y	Y	Y	Y	Y	Masonite Corp	6308 Industrial Boulevard	100	100,000	1,061,100
Y	Y	Y	Y	Y	Y	Y	Y	Cytec	4300 Jackson Street	200	250,592	8,025,820
Y	Y	Y	Y	Y	Y	Y	Y	Case Corp.	5601 Joe Ramsey Boulevard	200	509,269	4,806,500
Y	Y	Y	Y	Y	Y	Y	Y	Bonus Crop	Fertilizer 5903 Hwy 66	50	50,000	417,820
Y	Y	Y	Y	Y	Y	Y	Y	West Rock	1001 Ed Rutherford Road	100	41,000	490,420
Y	Y	Y	Y	Y	Y	Y	Y	Helena Chemical	6801 Hwy 66 West	50	26,000	600,950
Y	Y	Y	Y	Y	Y	Y	Y	L-3 Communications	101 Majors Road	6,000	3,000,000	255,133,650
Y	Y	Y	Y	Y	Y	Y	Y	Abu Mari	6311 Industrial Boulevard	100	65,175	1,784,550
Y	Y	Y	Y	Y	Y	Y	Y	Partsmaster	5700 Enterprise Drive	50	123,000	3,866,680
Y	Y	Y	Y	Y	Y	Y	Y	GEUS Substation	Roy Warren Parkway	N/A	N/A	Unknown

At Risk To: (Yes (Y) or No (N))								Greenville Critical and Vulnerable Facility and Infrastructure Inventory				
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address	Capacity	Square Feet	Structure Value
Y	Y	Y	Y	Y	Y	Y	Y	Greenville Electric Utility	6000 Joe Ramsey Boulevard	N/A	N/A	Unknown
Y	Y	Y	Y	Y	Y	Y	Y	Power Plant	Power Line Road	N/A	N/A	Unknown
Y	Y	Y	Y	Y	Y	Y	Y	Wastewater Plant	100 Division Street	N/A	N/A	Unknown
Y	Y	Y	Y	Y	Y	Y	Y	Water Tower	5705 Roberts Street	N/A	N/A	Unknown
Y	Y	Y	Y	Y	Y	Y	Y	Water Tower	4500 Ed Rutherford Road	N/A	N/A	Unknown
Y	Y	Y	Y	Y	Y	Y	Y	Water Tower	3101 Caddo Street	N/A	N/A	Unknown
Y	Y	Y	Y	Y	Y	Y	Y	Water Tower	801 Center Point Lane	N/A	N/A	Unknown
Y	Y	Y	Y	Y	Y	Y	Y	Water Treatment	501 Wesley Street	N/A	N/A	Unknown

City of Lone Oak

Wildfire Ignitions, 2005-2015



Wildfire Ignitions



Source: [Texas A&M Forest Service](#)

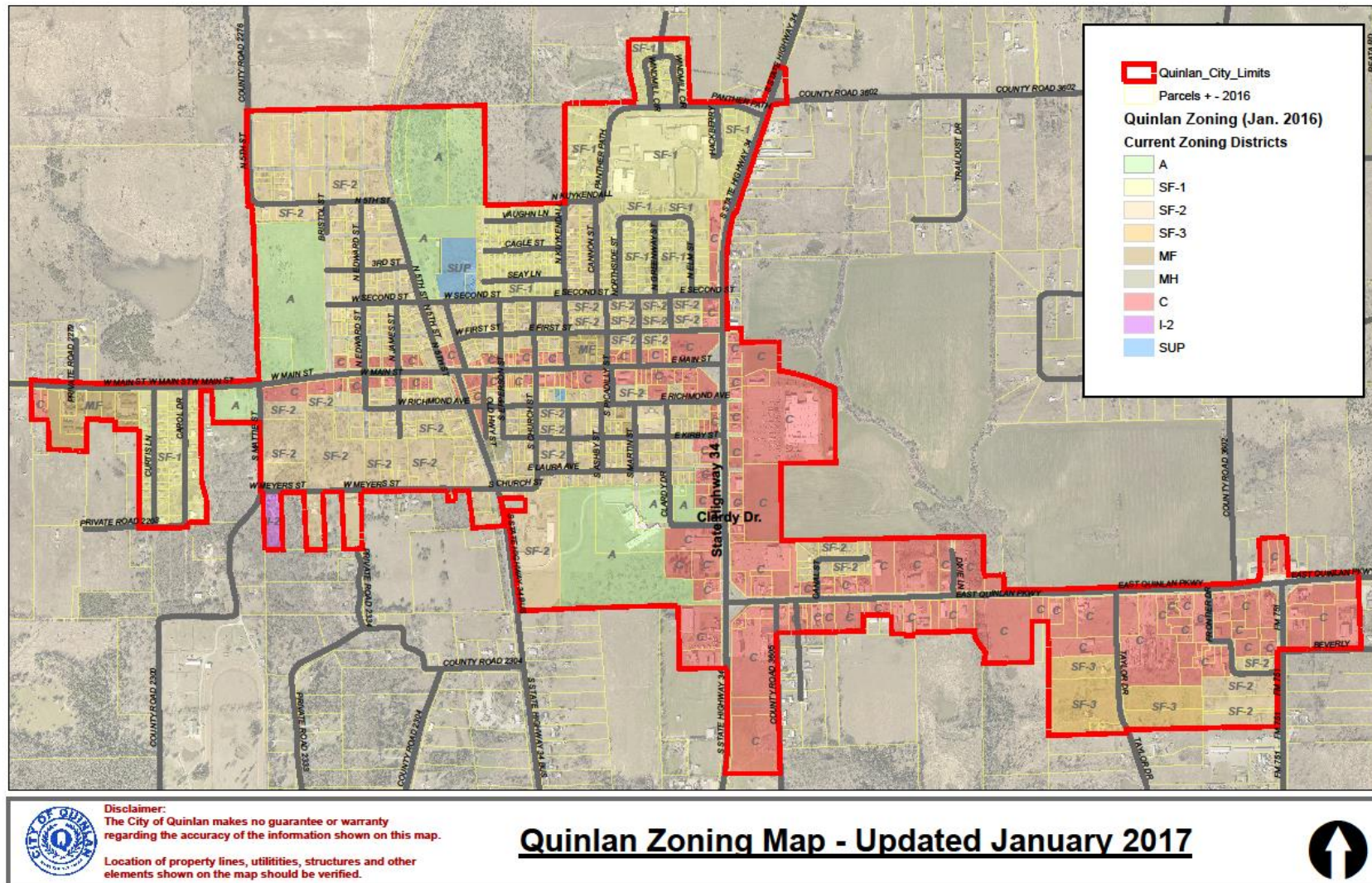
Lone Oak Critical and Vulnerable Facility & Infrastructure Table

At Risk To: (Yes (Y) or No (N))								Lone Oak Critical and Vulnerable Facility and Infrastructure Inventory				
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address	Square Feet	Structure Value	Content Value
Y	Y	Y	Y	Y	Y	N	Y	City Hall/ Police/ Public Works/ Municipal Court	115 Town Square	5,700	\$195,550	\$314,830
Y	Y	Y	N	Y	Y	N	Y	Post Office, Warehouse, Parking Lot	401 N Hwy 69	4,528	\$526,270	\$1,000,000
Y	Y	Y	N	Y	Y	N	Y	Short Stop Gas/Store/Food	508 N Hwy 69	2,550	\$335,690	Unknown
Y	Y	Y	N	Y	Y	N	Y	Buffalo Stop - Gas/Store/Food	605 S Hwy 69	3,200	\$604,620	Unknown
Y	Y	Y	N	Y	Y	N	Y	50 KG Water Tower Tank	115 Town Square	1,200	\$412,864	\$270,000
Y	Y	Y	N	Y	Y	N	Y	Volunteer Fire Station, Trucks and equipment	201 Katy Street	6,720	\$72,780	\$375,000
Y	Y	Y	N	Y	Y	Y	Y	LOISD: Elementary, Middle, High Schools, Maint. Bldg., Field House, Admin. Bldg.	8162 Hwy 69 South	232,386	\$15,133,330	\$24,000,000
Y	Y	Y	N	Y	Y	N	Y	Hunt County Barn Precinct #3 and Lot, Trucks, Material	301 N Hwy 69	20,200	\$264,090	\$300,000
Y	Y	Y	N	Y	Y	N	Y	Buffalo Grill Restaurant	203 Katy Street	3,864	\$97,510	Unknown
Y	Y	Y	N	Y	Y	Y	Y	The Range - off-campus Behavioral School (LOISD)	602 College Street	76,890	\$1,417,540	\$1,000,000
Y	Y	Y	N	Y	Y	N	Y	First Baptist Church	200 McBride Street	4,390	\$427,170	Unknown

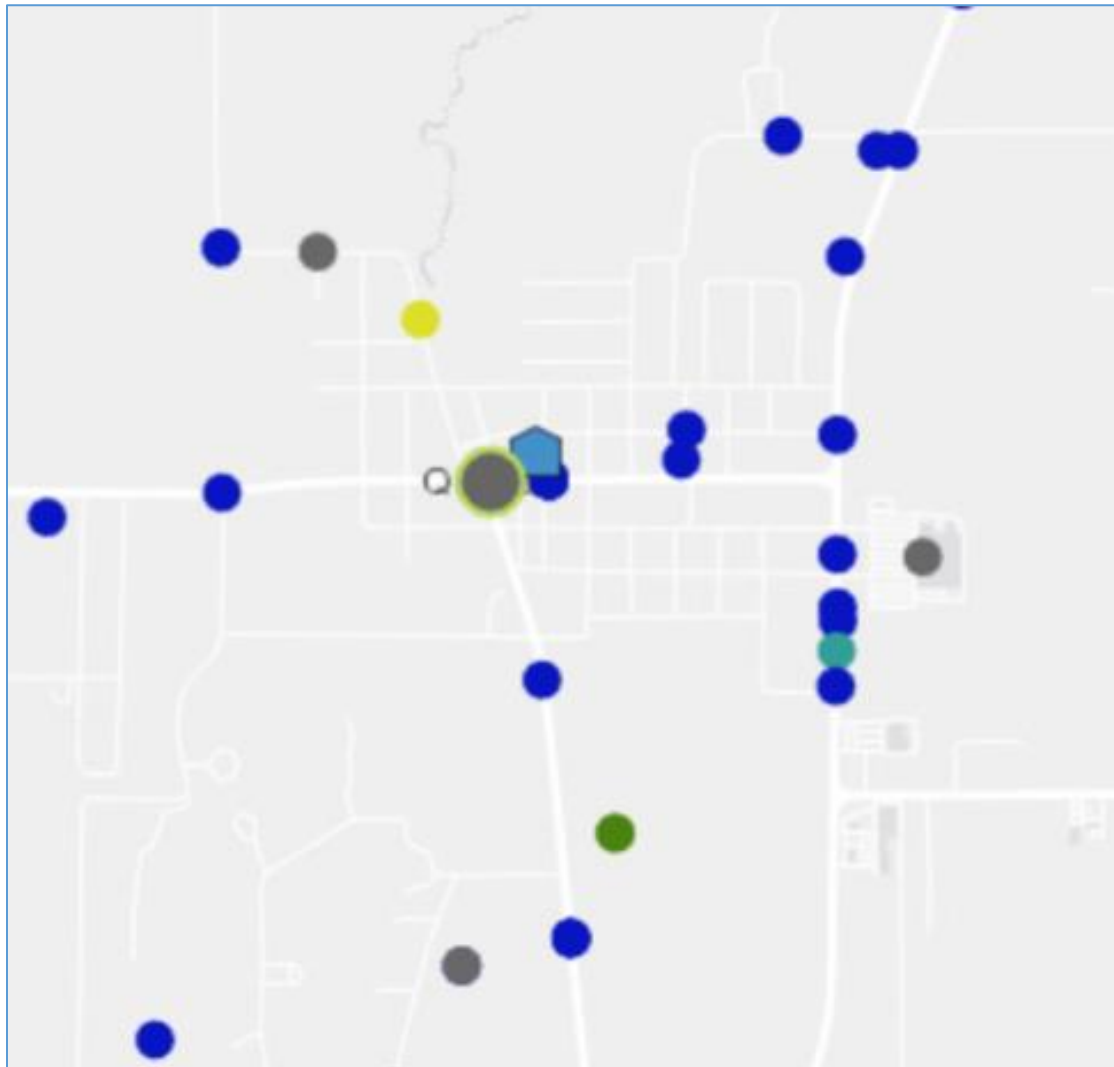
At Risk To: (Yes (Y) or No (N))								Lone Oak Critical and Vulnerable Facility and Infrastructure Inventory				
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address	Square Feet	Structure Value	Content Value
Y	Y	Y	N	Y	Y	N	Y	Methodist Church (Historical)	218 Main Street	3,175	\$98,740	Unknown
Y	Y	Y	N	Y	Y	Y	Y	Assembly of God Church	406 Church Street	1,900	\$227,420	Unknown
Y	Y	Y	N	Y	Y	N	Y	Community Church	703 N Hwy 69	2,820	\$212,350	Unknown
Y	Y	Y	N	Y	Y	N	Y	First Christian Church	401 Main Street	5,708	\$433,170	Unknown
Y	Y	Y	Y	Y	Y	Y	Y	Fellowship Baptist Church	130 FM 513 South	3,564	\$89,690	Unknown
Y	Y	Y	N	Y	Y	N	Y	Dollar General	505 N Hwy 69	28,500	\$386,260	Unknown
Y	Y	Y	N	Y	Y	N	Y	Area Public Library	102 Jones Street	3,200	\$258,220	\$30,000
Y	Y	Y	Y	Y	Y	N	Y	Bartley Funeral Home	110 Main Street	1,200	\$18,700	Unknown
Y	Y	Y	N	Y	Y	N	Y	Boyer Feed Store	509 Katy Street	1,800	\$72,460	Unknown
Y	Y	Y	Y	Y	Y	N	Y	Pavilion on Town Square	115 Town Square	3,750	\$40,000	\$1,000
Y	Y	Y	Y	Y	Y	N	Y	Lone Oak Area Civic Center	111 Town Square	6,000	\$204,630	\$10,000
Y	Y	Y	N	Y	Y	N	Y	Church Building (City Owned)	301 College Street	2,000	\$26,900	\$5,000
Y	Y	Y	Y	Y	Y	N	Y	Lift Station #1	701 FM 1567	N/A	\$20,000	\$1,000
Y	Y	Y	N	Y	Y	N	Y	Lift Station #2	108 1/2 Hwy 69	N/A	\$5,000	\$1,000
Y	Y	Y	Y	Y	Y	N	Y	Lift Station #3	707 FM 1567	N/A	\$20,000	\$1,000
Y	Y	Y	N	Y	Y	N	Y	Lift Station #4	801 Gladys Street	N/A	\$20,000	\$1,000
Y	Y	Y	N	Y	Y	N	Y	Lift Station #5	113 B Olive Street	N/A	\$20,000	\$1,000
Y	Y	Y	N	Y	Y	N	Y	Lift Station #6	100 FM 1571	N/A	\$20,000	\$2,000

At Risk To: (Yes (Y) or No (N))								Lone Oak Critical and Vulnerable Facility and Infrastructure Inventory				
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address	Square Feet	Structure Value	Content Value
N	Y	Y	N	Y	Y	N	Y	Cellular Communications- AT&T Several Antennas on Water Tower	115 Town Square	1,200	N/A	\$500,000
Y	Y	N	Y	N	N	N	Y	Main Roads	Katy, Main, Gladys, McBride, and College Streets	Unknown	Unknown	Unknown
Y	Y	Y	Y	Y	Y	Y	Y	Wastewater Treatment Plant	Mud Road	Unknown	\$266,021	N/A
Y	Y	Y	Y	N	N	N	Y	Sewer Lines	N/A	20 miles	\$4,752,000	N/A
Y	Y	Y	Y	N	N	N	Y	Water Lines	N/A	20 miles	\$ 3,696,000	N/A
Y	Y	Y	Y	Y	Y	Y	Y	Ground Storage Water Tank & Pump Station Water Treatment	113 Olive Street	Unknown	\$258,891	\$115,000

City of Quinlan



Wildfire Ignitions, 2005-2015



Wildfire Ignitions



Source: [Texas A&M Forest Service](#)

Quinlan Critical and Vulnerable Facility & Infrastructure Table

At Risk To: (Yes (Y) or No (N))								Quinlan Critical and Vulnerable Facility and Infrastructure Inventory	
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address
Y	Y	Y	Y	Y	Y	Y	Y	City Hall	105 West Main Street
Y	Y	Y	Y	Y	Y	Y	Y	Municipal Court	104 East Main Street
Y	Y	Y	Y	Y	Y	Y	Y	Volunteer Fire Department	108 North Epperson
Y	Y	Y	Y	Y	Y	Y	Y	Senior Center	101 West Kirby Avenue
Y	Y	Y	Y	Y	Y	Y	Y	Hunt Regional Emergency Medical Center at Quinlan	738 East Quinlan Parkway

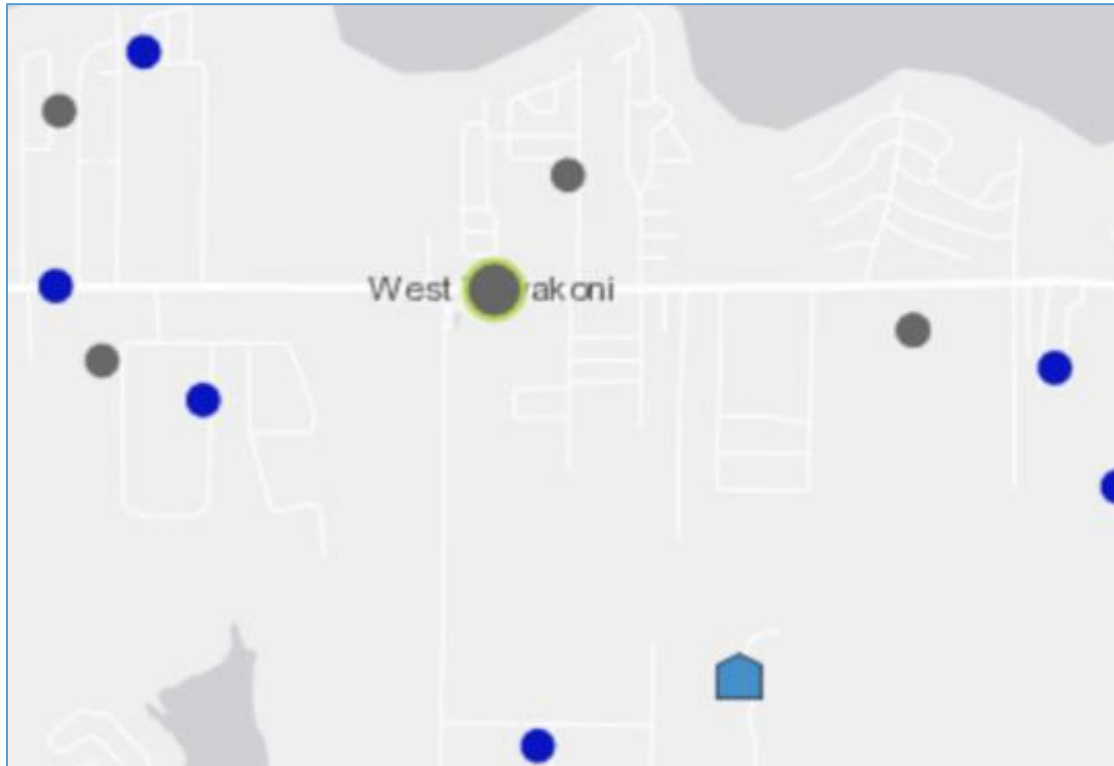
Quinlan Independent School District (QISD)

QISD Critical and Vulnerable Facility & Infrastructure Table

At Risk To: (Yes (Y) or No (N))								QISD Critical and Vulnerable Facility and Infrastructure Inventory	
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address
Y	Y	Y	Y	Y	Y	Y	Y	Quinlan ISD	401 East Richmond
Y	Y	Y	Y	Y	Y	Y	Y	Ford High School	10064 South State Highway Spur 264
Y	Y	Y	Y	Y	Y	Y	Y	Cannon Elementary School	315 Highway 34 South
Y	Y	Y	Y	Y	Y	Y	Y	Butler Intermediate School	410 Clardy Drive
Y	Y	Y	Y	Y	Y	Y	Y	Thompson Middle School	423 Panther Path
Y	Y	Y	Y	Y	Y	Y	Y	Community Library and Museum Center	401 Panther Path

City of West Tawakoni

Wildfire Ignitions, 2005-2015



Wildfire Ignitions

Cause	Cause
● Incendiary	● Railroads
● Lightning	● Power Lines
● Campfire	● Children
● Smoking	● Debris Burning
● Fireworks	● Structure
● Equipment User	● Miscellaneous

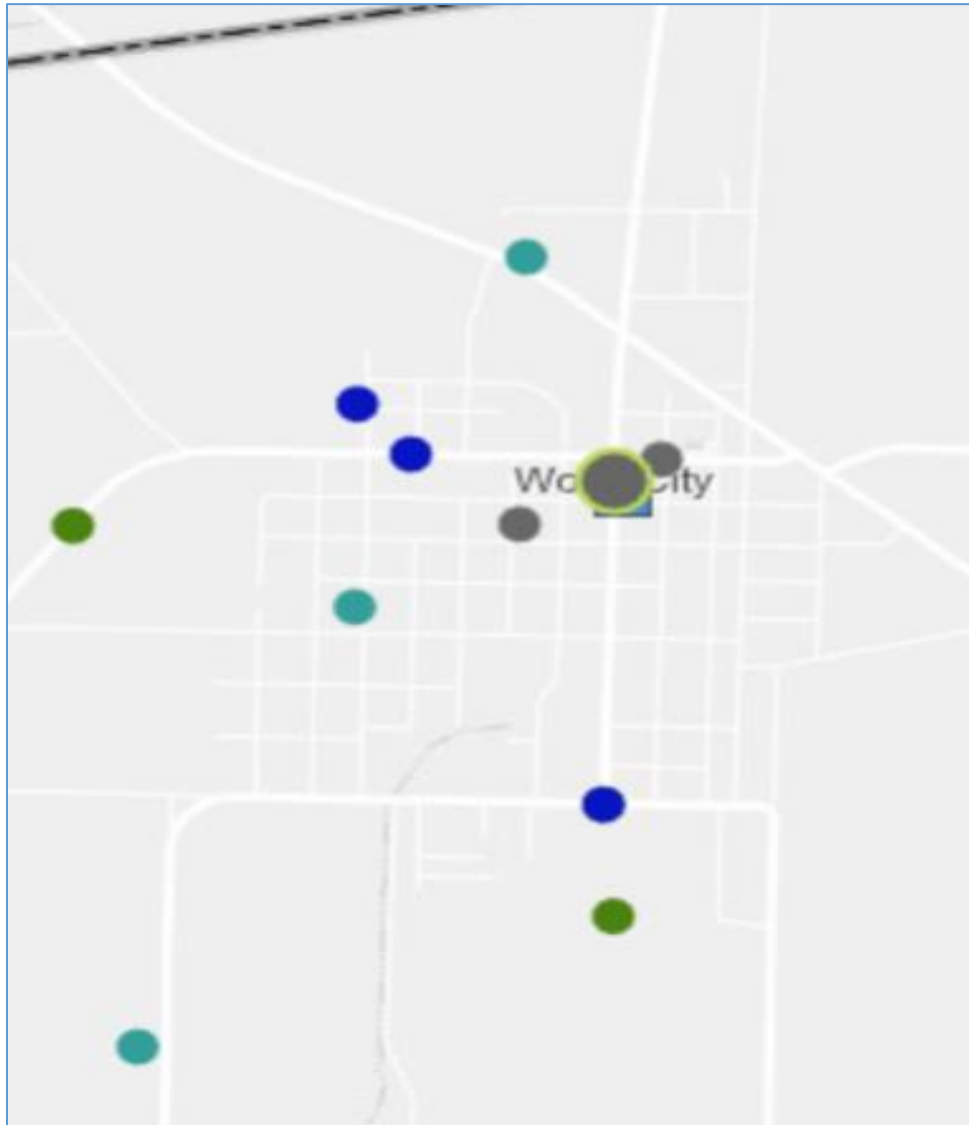
Source: [Texas A&M Forest Service](#)

West Tawakoni Critical and Vulnerable Facility & Infrastructure Table

At Risk To: (Yes (Y) or No (N))								West Tawakoni Critical and Vulnerable Facility and Infrastructure Inventory	
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address
Y	N	Y	Y	Y	Y	Y	Y	City Hall/Police Station	1533 East TX-276
Y	N	Y	Y	Y	Y	Y	Y	Tawakoni Volunteer Fire Department	951 East TX-276
Y	N	Y	Y	Y	Y	Y	Y	West Tawakoni Water Treatment Plant	TX-276
Y	N	Y	Y	Y	Y	Y	Y	West Tawakoni Wastewater Treatment Plant	1401 East Rabbit Cove Road
Y	N	Y	Y	Y	Y	Y	Y	Billy's Gas Station	1405 TX-276
Y	N	Y	Y	Y	Y	Y	Y	Dollar General	101 East TX-276
Y	N	Y	Y	Y	Y	Y	Y	Houston Place Apartment	1024 Woodland Drive
Y	N	Y	Y	Y	Y	Y	Y	Greater Vision Church	1933 TX-276
Y	N	Y	Y	Y	Y	Y	Y	Hope of Glory Worship Center	1024 TX-276
Y	N	Y	Y	Y	Y	Y	Y	First Baptist Church	201 TX-276
Y	N	Y	Y	Y	Y	Y	Y	Tawakoni Assembly of God	1056 TX-276
Y	N	Y	Y	Y	Y	Y	Y	Lift stations for West Tawakoni	N/A
Y	N	Y	Y	Y	Y	Y	Y	Hwy 276	N/A
Y	N	Y	Y	Y	Y	Y	Y	Rabbit Cove Rd	N/A
Y	N	Y	Y	Y	Y	Y	Y	Mays Lane	N/A
Y	N	Y	Y	Y	Y	Y	Y	Two Mile Bridge	TX-276

City of Wolfe City

Wildfire Ignitions, 2005-2015



Wildfire Ignitions

Cause	Cause
Incendiary	Railroads
Lightning	Power Lines
Campfire	Children
Smoking	Debris Burning
Fireworks	Structure
Equipment User	Miscellaneous

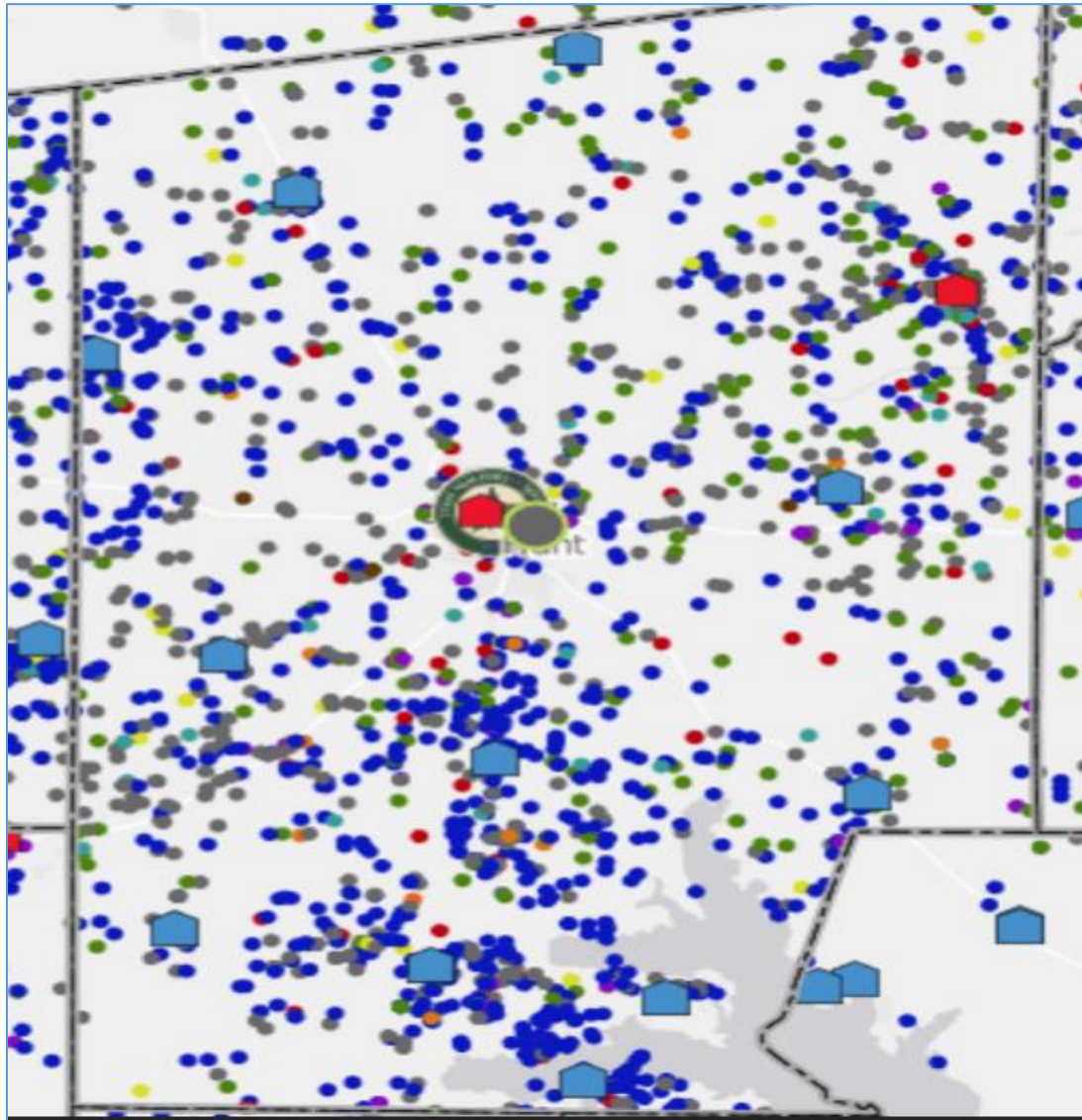
Source: [Texas A&M Forest Service](#)

Wolfe City Critical and Vulnerable Facility & Infrastructure Table

At Risk To: (Yes (Y) or No (N))								Wolfe City Critical and Vulnerable Facility and Infrastructure Inventory	
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address
Y	N	Y	Y	Y	Y	Y	Y	Wolfe City Elementary	505 West Dallas
Y	N	Y	Y	Y	Y	Y	Y	Wolfe City Middle School	405 West Hanna
Y	N	Y	Y	Y	Y	Y	Y	Wolfe City High School	8439 Hwy 34 North
Y	N	Y	Y	Y	Y	Y	Y	City Hall/ Municipal Court	103 West Main Street
Y	N	Y	Y	Y	Y	Y	Y	Public Library	204 East Williams Street

Hunt County Unincorporated

Wildfire Ignitions, 2005-2015



Wildfire Ignitions

Cause		Cause	
●	Incendiary	●	Railroads
●	Lightning	●	Power Lines
●	Campfire	●	Children
●	Smoking	●	Debris Burning
●	Fireworks	●	Structure
●	Equipment User	●	Miscellaneous

Source: [Texas A&M Forest Service](#)

Hunt County Unincorporated Critical and Vulnerable Facility & Infrastructure Table

At Risk To: (Yes (Y) or No (N))								Hunt County Unincorporated Critical and Vulnerable Facility and Infrastructure Inventory	
Drought	Expansive Soils	Extreme Heat	Flooding	Thunderstorms	Tornadoes	Wildfires	Winter Storms	Facility Name or Description	Address
Y	N	Y	Y	Y	Y	Y	Y	Republic Landfill	2811 FM-1568, Campbell
Y	N	Y	Y	Y	Y	Y	Y	Hunt County Courthouse	2507 Lee Street, Greenville
Y	N	Y	Y	Y	Y	Y	Y	Hunt County Sheriff's Office	2801 Stuart Street, Greenville
Y	N	Y	Y	Y	Y	Y	Y	Bland Elementary School	5123 FM 2194, Merit
Y	N	Y	Y	Y	Y	Y	Y	Bland Middle School	5123 FM 2194, Merit
Y	N	Y	Y	Y	Y	Y	Y	Bland High School	6164 FM 2194, Merit

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Appendix B: Capabilities Assessment

The following capability assessments examine the ability of the jurisdictions to implement and manage a comprehensive mitigation strategy. Strengths, weaknesses, and resources of the jurisdictions are identified as a means to develop an effective Hazard Mitigation Action Plan (HazMAP). The capabilities identified in these assessments were evaluated collectively to develop feasible recommendations, which support the implementation of effective mitigation activities.

The assessments include questions regarding existing plans, policies, and regulations that contribute to or hinder the ability to implement hazard mitigation activities, including legal and regulatory capabilities; administrative and technical capabilities; and fiscal capabilities.

City of Caddo Mills

Planning and Regulatory Assessment

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of natural hazards.

Type of Plans	Have capability?	Level	If Yes...		
Comprehensive or Master Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Capital Improvement Plan (CIP)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Economic Development Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Local Emergency Operations Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Continuity of Operations Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Transportation Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Stormwater Management Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Community Wildfire Protection Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Green Infrastructure Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Parks or Open Space Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Hazard Mitigation Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Land Use Planning and Ordinances	Have capability?	If Yes...			
Zoning Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):	
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):	
Subdivision Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):	
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):	
Floodplain Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):	
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):	
Flood Insurance Rate Maps (FIRM)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the FIRM an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):	
		Is the FIRM adequately	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):	

Land Use Planning and Ordinances	Have capability?	If Yes...		
		administered and enforced?		
Natural Hazard Specific Ordinance (e.g., stormwater, wildfire)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Acquisition of land for open space and public recreation uses	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Building Code, Permitting, and Inspections	Have capability?	
Building Code	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Version/Year: 2015-present
Building Code Effectiveness Grading Schedule (BGEES) Score	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Score:
Fire Department ISO Rating	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Rating:
Site Plan Review Requirements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Review method: Building Inspector

Administrative and Technical Assessment

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions.

Administration	Have capability?	If Yes...
Planning Commission	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Planning and Zoning Board
Mitigation Planning Committee	<input checked="" type="checkbox"/> Yes	Describe capability: Identifies hazards, conducts a risk and vulnerability assessment, and creates and monitors mitigation actions.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Public Work's Department
Mutual Aid Agreements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: County

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
Chief Building Official	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Floodplain Administrator	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Emergency Manager	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
Community Planner	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Civil Engineer	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
GIS Coordinator	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Public Works Director	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Fire Chief	<input checked="" type="checkbox"/> Yes-FT-Volunteer <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Technical	Have capability?	If Yes...
Warning Systems/Services (e.g., Reverse 911, outdoor warning signals)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
		Has capability been used to assess or mitigate risk in the past? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of hazard event? Tornado Warning
Hazard data and information	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
		Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of hazard event?
Grant writing	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
		Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of hazard event?
HaZUS analysis or GIS software	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
		Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of hazard event?

Education and Outreach Assessment

Education and outreach programs and methods can be used to implement mitigation activities and communicate hazard-related information.

Program or Organization	Have capability?	If Yes...	
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Natural disaster or safety related school programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Public/private partnership initiatives addressing disaster-related issues	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
StormReady certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Firewise Communities Certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		

Financial Assessment

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resources	Have capability?	If Yes...	
Capital Improvements Project funding	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Authority to levy taxes for specific purposes	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Fees for water, sewer, gas, and/or electric services	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities for mitigation activities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Impact fees for new development	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Stormwater utility fee	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incurrence of debt through general obligation bonds and/or special tax bonds	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incur debt through private activities	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Funding Resources	Have capability?	If Yes...	
		If yes, for what type of mitigation activities?	
Community Development Block Grant	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities? Drainage	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Other federal funding programs (e.g. FEMA mitigation grants)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
State funding programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	

How can these capabilities be expanded and improved to reduce risk?
<p>Actions that can expand and improve existing authorities, plans, policies, and resources for mitigation include budgeting and passing policies and procedures for mitigation actions, adopting and implementing stricter mitigation regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation updates to existing plans as new needs are recognized.</p>

City of Commerce

Planning and Regulatory Assessment

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of natural hazards.

Type of Plans	Have capability?	Level	If Yes...		
Comprehensive or Master Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input type="checkbox"/> Region	to include in the mitigation strategy?		
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Capital Improvement Plan (CIP)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Economic Development Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Local Emergency Operations Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
			Does the plan identify projects	<input type="checkbox"/> Yes	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input type="checkbox"/> Region	to include in the mitigation strategy?	<input checked="" type="checkbox"/> No	
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Continuity of Operations Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Transportation Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments: Annex S of EMP Annexes
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Stormwater Management Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects	<input type="checkbox"/> Yes	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input type="checkbox"/> Region	to include in the mitigation strategy?	<input type="checkbox"/> No	
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Community Wildfire Protection Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		<input type="checkbox"/> County	Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		<input type="checkbox"/> Region	Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Green Infrastructure Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		<input type="checkbox"/> County	Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		<input type="checkbox"/> Region	Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Parks or Open Space Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		<input type="checkbox"/> County	Does the plan identify projects	<input type="checkbox"/> Yes	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input type="checkbox"/> Region	to include in the mitigation strategy?	<input type="checkbox"/> No	
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Hazard Mitigation Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
Zoning Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Subdivision Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately	<input checked="" type="checkbox"/> Yes	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
		administered and enforced?	<input type="checkbox"/> No	
Floodplain Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Flood Insurance Rate Maps (FIRM)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the FIRM an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the FIRM adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Natural Hazard Specific Ordinance (e.g., stormwater, wildfire)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Acquisition of land for open space and public recreation uses	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Building Code, Permitting, and Inspections	Have capability?	
Building Code	<input checked="" type="checkbox"/> Yes	Version/Year: 2012

	<input type="checkbox"/> No <input type="checkbox"/> N/A	
Building Code Effectiveness Grading Schedule (BGEES) Score	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Score:
Fire Department ISO Rating	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Rating: 3
Site Plan Review Requirements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Review method: interdepartmental (Community Development, Public Works & FD) and Bureau Veritas

Administrative and Technical Assessment

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions.

Administration	Have capability?	If Yes...
Planning Commission	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: P&Z hears, recommends and determines matters related to zoning, platting or subdivision control as specified or required under city ordinance, city charter or state law.
Mitigation Planning Committee	<input checked="" type="checkbox"/> Yes	Describe capability: Identifies hazards, conducts a risk and vulnerability assessment, and creates and monitors mitigation actions.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
Mutual Aid Agreements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: provides manpower, and equipment on scene to include natural disasters, vehicle accidents, medical calls and Hazmat situations.

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
Chief Building Official	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Floodplain Administrator	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Emergency Manager	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Community Planner	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Civil Engineer	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
GIS Coordinator	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Public Works Director	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Fire Chief	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Technical	Have capability?	If Yes...
Warning Systems/Services (e.g., Reverse 911, outdoor warning signals)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Describe capability. Mass communication (texts/phone calls) to alert designated areas affected by various conditions.

Technical	Have capability?	If Yes...	
	<input type="checkbox"/> N/A	Has capability been used to assess or mitigate risk in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event? Weather- tornado warnings, hail	
Hazard data and information	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: This plan. Updated in 2015.	
		Has capability been used to assess or mitigate risk in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event? Drought, flooding	
Grant writing	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability.	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?	
HaZUS analysis or GIS software	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?	

Education and Outreach Assessment

Education and outreach programs and methods can be used to implement mitigation activities and communicate hazard-related information.

Program or Organization	Have capability?	If Yes...	
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness,	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Program or Organization	Have capability?	If Yes...	
access and functional needs populations, etc.		Describe program or organization and how it relates to disaster resilience and mitigation:	
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Natural disaster or safety related school programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation: Fire Safety and Active Shooter training for school-aged kids	
Public/private partnership initiatives addressing disaster-related issues	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
StormReady certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Answer will be pre-filled.	
Firewise Communities Certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Answer will be pre-filled.	

Financial Assessment

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resources	Have capability?	If Yes...	
Capital Improvements Project funding	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Authority to levy taxes for specific purposes	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Fees for water, sewer, gas, and/or electric services	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities? Optional fees tagged on to water bill to allow citizens to enroll in mass text/call communication in the event of emergency	
Impact fees for new development	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Funding Resources	Have capability?	If Yes...	
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Stormwater utility fee	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incurrence of debt through general obligation bonds and/or special tax bonds	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	

City of Greenville

Planning and Regulatory Assessment

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of natural hazards.

Type of Plans	Have capability?	Level	If Yes...		
Comprehensive or Master Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input type="checkbox"/> Region	Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes ✓ No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes ✓ No	Comments:
Capital Improvement Plan (CIP)	<input type="checkbox"/> Yes ✓ No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Economic Development Plan	✓ Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	✓ Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Local Emergency	✓ Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	✓ Local <input type="checkbox"/> County	Does the plan address natural hazards?	<input type="checkbox"/> Yes ✓ No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
Operations Plan		<input type="checkbox"/> Region	Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes ✓ No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes ✓ No	Comments:
Continuity of Operations Plan	✓ Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	✓ Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes ✓ No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes ✓ No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes ✓ No	Comments:
Transportation Plan	✓ Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County ✓ Region	Does the plan address natural hazards?	✓ Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes ✓ No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes ✓ No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
Stormwater Management Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Community Wildfire Protection Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Green Infrastructure Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			mitigation actions?		
Parks or Open Space Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
Hazard Mitigation Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
Zoning Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
		administered and enforced?		
Subdivision Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Floodplain Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Flood Insurance Rate Maps	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Natural Hazard Specific Ordinance (e.g., stormwater, wildfire)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Acquisition of land for open space and public recreation uses	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Building Code, Permitting, and Inspections	Have capability?	
Building Code	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Version/Year: IBC 2006
Building Code Effectiveness Grading Schedule (BGEES) Score	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Score: 10
Fire Department ISO Rating	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Rating: 3
Site Plan Review Requirements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Review method:

Administrative and Technical Assessment

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions.

Administration	Have capability?	If Yes...
Planning Commission	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Provide direction for council on various incoming projects based on local adopted codes and ordinances
Mitigation Planning Committee	<input checked="" type="checkbox"/> Yes	Describe capability: Hazard identification and risk assessment.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Local electric provider provides trimming. Street Department provides routine drainage clearing.

Mutual Aid Agreements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Mutual Aid agreements with county fire departments.
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Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
Chief Building Official	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Floodplain Administrator	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Emergency Manager	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Community Planner	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Civil Engineer	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
GIS Coordinator	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
Public Works Director	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Fire Chief	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Technical	Have capability?	If Yes...	
Warning Systems/Services (e.g., Reverse 911, outdoor warning signals)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Code Red	
		Has capability been used to assess or mitigate risk in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event? Severe Weather	
Hazard data and information	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?	
Grant writing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Describe capability.	

Technical	Have capability?	If Yes...	
	<input type="checkbox"/> N/A	Has capability been used to assess or mitigate risk in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event? Write HazMAP	
HaZUS analysis or GIS software	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:	
		Has capability been used to assess or mitigate risk in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?	Flooding

Education and Outreach Assessment

Education and outreach programs and methods can be used to implement mitigation activities and communicate hazard-related information.

Program or Organization	Have capability?	If Yes...	
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation: Inform the public of likely hazards and how they may better prepare themselves.	
Natural disaster or safety related school programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation: Schools are a captive audience so one of the things we try is to reach families through the kids.	

Program or Organization	Have capability?	If Yes...	
Public/private partnership initiatives addressing disaster-related issues	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		Describe program or organization and how it relates to disaster resilience and mitigation: Local Emergency Planning Committee	
StormReady certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Firewise Communities Certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		

Financial Assessment

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resources	Have capability?	If Yes...	
Capital Improvements project funding	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		Has the funding resource been used in past? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		If yes, for what type of activities?	
Authority to levy taxes for specific purposes	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		Has the funding resource been used in past? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		If yes, for what type of activities?	
Fees for water, sewer, gas, and/or electric services	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		Has the funding resource been used in past? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		If yes, for what type of activities? Infrastructure	
Impact fees for new development	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		Has the funding resource been used in past? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		If yes, for what type of activities?	

Funding Resources	Have capability?	If Yes...	
Stormwater utility fee	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of activities?	
Incurrence of debt through general obligation bonds and/or special tax bonds	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of activities?	
Incur debt through private activities	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of activities?	
Community Development Block Grant	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of activities?	
Other federal funding programs (e.g. FEMA mitigation grants)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of activities?	
State funding programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of activities?	

How can these capabilities be expanded and improved to reduce risk?
<p>Actions that can expand and improve existing authorities, plans, policies, and resources for mitigation include budgeting and passing policies and procedures for mitigation actions, adopting and implementing stricter mitigation regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation updates to existing plans as new needs are recognized.</p>

City of Lone Oak

Planning and Regulatory Assessment

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of natural hazards.

Type of Plans	Have capability?	Level	If Yes...		
Comprehensive or Master Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Capital Improvement Plan (CIP)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Economic Development Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	X Yes <input type="checkbox"/> No	Comments: Dependent on developments
Local Emergency Operations Plan	<input type="checkbox"/> Yes X No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Continuity of Operations Plan	<input type="checkbox"/> Yes X No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Transportation Plan	<input type="checkbox"/> Yes <input type="checkbox"/> No X N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments: TxDOT

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Stormwater Management Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Community Wildfire Protection Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Green Infrastructure Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Parks or Open Space Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Hazard Mitigation Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Drought Contingency Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
Zoning Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Subdivision Ordinance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Floodplain Ordinance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Flood Insurance Rate Maps (FIRM)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the FIRM an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the FIRM adequately	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
		administered and enforced?		
Natural Hazard Specific Ordinance (e.g., stormwater, wildfire)	<input type="checkbox"/> Yes X No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Acquisition of land for open space and public recreation uses	<input type="checkbox"/> Yes X No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Building Code, Permitting, and Inspections	Have capability?	
Building Code	X Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Version/Year: 2012
Building Code Effectiveness Grading Schedule (BGEES) Score	<input type="checkbox"/> Yes X No <input type="checkbox"/> N/A	Score:
Fire Department ISO Rating	X Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Rating: 7
Site Plan Review Requirements	X Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Review method: Mayor, Public Works, Code Enforcement oversight

Administrative and Technical Assessment

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions.

Administration	Have capability?	If Yes...
Planning Commission	X Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Planning & Zoning monitors property changes and conducts assessments when needed.
Mitigation Planning Committee	X Yes	Describe capability: Identifies hazards, conducts a risk and vulnerability assessment, and creates and monitors mitigation actions.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	<input type="checkbox"/> Yes X No <input type="checkbox"/> N/A	Describe capability:
Mutual Aid Agreements	X Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: with county

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
Chief Building Official	<input type="checkbox"/> Yes-FT X Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	X Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes X No
Floodplain Administrator	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT X No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	X Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	X Yes <input type="checkbox"/> No
Emergency Manager	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT X No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Community Planner	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT X No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
City Engineer	<input type="checkbox"/> Yes-FT X Yes- PT	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
	<input type="checkbox"/> No <input type="checkbox"/> N/A		X No
		Is staff trained on natural hazards and mitigation?	X Yes <input type="checkbox"/> No
GIS Coordinator – with County	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No X N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Public Works Director	X Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes X No
		Is staff trained on natural hazards and mitigation?	X Yes <input type="checkbox"/> No
Fire Chief	<input type="checkbox"/> Yes-FT X Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	X Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	X Yes <input type="checkbox"/> No
Environmental Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT X No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Technical	Have capability?	If Yes...	
Warning Systems/Services (e.g., Reverse 911, outdoor warning signals)	X Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability. 1 outdoor siren	
		Has capability been used to assess or mitigate risk in the past?	X Yes <input type="checkbox"/> No
		If yes, for what type of event? Weather warnings	
Hazard data and information	X Yes <input type="checkbox"/> No	Describe capability: Records of all fires	

Technical	Have capability?	If Yes...	
	<input type="checkbox"/> N/A	Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes X No
		If yes, for what type of event?	
Grant writing	<input type="checkbox"/> Yes X No <input type="checkbox"/> N/A	Describe capability.	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?	
HaZUS analysis or GIS software	<input type="checkbox"/> Yes X No <input type="checkbox"/> N/A	Describe capability:	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?	

Education and Outreach Assessment

Education and outreach programs and methods can be used to implement mitigation activities and communicate hazard-related information.

Program or Organization	Have capability?	If Yes...	
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	<input type="checkbox"/> Yes X No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	X Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	X Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation: Fire safety at elementary school level	

Program or Organization	Have capability?	If Yes...	
Natural disaster or safety related school programs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Public/private partnership initiatives addressing disaster-related issues	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
StormReady certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Firewise Communities Certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		

Financial Assessment

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resources	Have capability?	If Yes...	
Capital Improvements Project funding	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Authority to levy taxes for specific purposes	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Funding Resources	Have capability?	If Yes...	
		If yes, for what type of mitigation activities?	
Fees for water, sewer, gas, and/or electric services	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Impact fees for new development	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Stormwater utility fee	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incurrence of debt through general obligation bonds and/or special tax bonds	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incur debt through private activities	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	

Funding Resources	Have capability?	If Yes...	
		If yes, for what type of mitigation activities?	
Community Development Block Grant	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Other federal funding programs (e.g. FEMA mitigation grants)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
State funding programs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	

How can these capabilities be expanded and improved to reduce risk?
<p>Actions that can expand and improve existing authorities, plans, policies, and resources for mitigation include budgeting and passing policies and procedures for mitigation actions, adopting and implementing stricter mitigation regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation updates to existing plans as new needs are recognized. City would like to apply for NFIP.</p>

City of Quinlan

Planning and Regulatory Assessment

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of natural hazards.

Type of Plans	Have capability?	Level	If Yes...		
Comprehensive or Master Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Capital Improvement Plan (CIP)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional): IN progress
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Economic Development Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments (optional):

Type of Plans	Have capability?	Level	If Yes...		
Local Emergency Operations Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments (optional):
Continuity of Operations Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Transportation Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Type of Plans	Have capability?	Level	If Yes...		
Stormwater Management Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Community Wildfire Protection Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Green Infrastructure Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Type of Plans	Have capability?	Level	If Yes...		
Parks or Open Space Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Hazard Mitigation Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Does the plan identify projects to include in the mitigation strategy?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Land Use Planning and Ordinances	Have capability?	If Yes...		
Zoning Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Land Use Planning and Ordinances	Have capability?	If Yes...		
Subdivision Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Floodplain Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Flood Insurance Rate Maps (FIRM)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the FIRM an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
		Is the FIRM adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Natural Hazard Specific Ordinance (e.g., stormwater, wildfire)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
Acquisition of land for open space and public recreation uses	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):
		Is the ordinance adequately	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments (optional):

Land Use Planning and Ordinances	Have capability?	If Yes...		
		administered and enforced?		

Building Code, Permitting, and Inspections	Have capability?	
Building Code	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Version/Year: 2009 IBC
Building Code Effectiveness Grading Schedule (BGECS) Score	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Score:
Fire Department ISO Rating	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Rating: Unknown
Site Plan Review Requirements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Review method: Staff review process

Administrative and Technical Assessment

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions.

Administration	Have capability?	If Yes...
Planning Commission	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Approve zoning changes, subdivision plots, etc.
Mitigation Planning Committee	<input checked="" type="checkbox"/> Yes	Describe capability: Identifies hazards, conducts a risk and vulnerability assessment, and creates and monitors mitigation actions.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Public Works maintains roads, drainage, and landscaping.
Mutual Aid Agreements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Agreements with police, volunteer fire, and County.

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
Chief Building Official	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Floodplain Administrator	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Emergency Manager	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Community Planner	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Civil Engineer	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
GIS Coordinator	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Public Works Director	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
Fire Chief	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Technical	Have capability?	If Yes...	
Warning Systems/Services (e.g., Reverse 911, outdoor warning signals)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of hazard event?	
Hazard data and information	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of hazard event?	
Grant writing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Contractor	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of hazard event?	

Technical	Have capability?	If Yes...
HaZUS analysis or GIS software	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Utilities, zoning, parcels
		Has capability been used to assess or mitigate risk in the past? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of hazard event? Floodplain

Education and Outreach Assessment

Education and outreach programs and methods can be used to implement mitigation activities and communicate hazard-related information.

Program or Organization	Have capability?	If Yes...
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation: Water Conservation info on website, social media
Natural disaster or safety related school programs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:
Public/private partnership initiatives addressing disaster-related issues	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:
StormReady certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Program or Organization	Have capability?	If Yes...
	<input type="checkbox"/> N/A	
Firewise Communities Certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	

Financial Assessment

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resources	Have capability?	If Yes...	
Capital Improvements Project funding	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities? <div> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div>	
		Has the funding resource been used in past for mitigation activities? <div> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div>	
		If yes, for what type of mitigation activities?	
Authority to levy taxes for specific purposes	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities? <div> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div>	
		Has the funding resource been used in past for mitigation activities? <div> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div>	
		If yes, for what type of mitigation activities?	
Fees for water, sewer, gas, and/or electric services	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities? <div> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </div>	
		Has the funding resource been used in past for mitigation activities for mitigation activities? <div> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </div>	
		If yes, for what type of mitigation activities? Prevent sewer overflow and power outage.	
Impact fees for new development	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes

Funding Resources	Have capability?	If Yes...	
	<input type="checkbox"/> N/A		<input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Stormwater utility fee	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incurrence of debt through general obligation bonds and/or special tax bonds	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities? Sewer improvements	
Incur debt through private activities	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Community Development Block Grant	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Funding Resources	Have capability?	If Yes...	
		If yes, for what type of mitigation activities?	
Other federal funding programs (e.g. FEMA mitigation grants)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
State funding programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation activities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Has the funding resource been used in past for mitigation activities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	

How can these capabilities be expanded and improved to reduce risk?
Actions that can expand and improve existing authorities, plans, policies, and resources for mitigation include budgeting and passing policies and procedures for mitigation actions, adopting and implementing stricter mitigation regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation updates to existing plans as new needs are recognized.

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Planning and Regulatory Assessment

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of natural hazards.

Type of Plans	Have capability?	Level	If Yes...		
Comprehensive or Master Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		<input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan identify projects to include in the	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			mitigation strategy?		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Capital Improvement Plan (CIP)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Economic Development Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Local Emergency Operations Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			mitigation strategy?		
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Continuity of Operations Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Transportation Plan	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Stormwater Management Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			mitigation strategy?		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Community Wildfire Protection Plan	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Green Infrastructure Plan	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Parks or Open Space Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			mitigation strategy?		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Hazard Mitigation Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
Zoning Ordinance	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Subdivision Ordinance	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
		administered and enforced?		
Floodplain Ordinance	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Flood Insurance Rate Maps (FIRM)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is the FIRM an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the FIRM adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Natural Hazard Specific Ordinance (e.g., stormwater, wildfire)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Acquisition of land for open space and public recreation uses	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Building Code, Permitting, and Inspections	Have capability?	
Building Code	<input type="checkbox"/> Yes <input type="checkbox"/> No	Version/Year:

	<input checked="" type="checkbox"/> N/A	
Building Code Effectiveness Grading Schedule (BGEES) Score	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Score:
Fire Department ISO Rating	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Rating:
Site Plan Review Requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Review method:

Administrative and Technical Assessment

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions.

Administration	Have capability?	If Yes...
Planning Commission	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Describe capability:
Mitigation Planning Committee	<input checked="" type="checkbox"/> Yes	Describe capability: Identifies hazards, conducts a risk and vulnerability assessment, and creates and monitors mitigation actions.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
Mutual Aid Agreements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Primarily related to Police.

Staff	Have capability? FT/PT*	If Yes...
*Full-time (FT) or part-time (PT) position		
Chief Building Official	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No
Floodplain Administrator	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
	<input checked="" type="checkbox"/> N/A	Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Emergency Manager	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Community Planner	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Civil Engineer	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
GIS Coordinator	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Public Works Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Fire Chief	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Environmental Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Staff	Have capability? FT/PT*	If Yes...
*Full-time (FT) or part-time (PT) position		
	<input checked="" type="checkbox"/> N/A	Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No

Technical	Have capability?	If Yes...
Warning Systems/Services (e.g., Reverse 911, outdoor warning signals)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability.
		Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?
Hazard data and information	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
		Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?
Grant writing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability. Title 9
		Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?
HaZUS analysis or GIS software	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
		Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?

Education and outreach programs and methods can be used to implement mitigation activities and communicate hazard-related information.

Program or Organization	Have capability?	If Yes...	
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Natural disaster or safety related school programs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Public/private partnership initiatives addressing disaster-related issues	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		Describe program or organization and how it relates to disaster resilience and mitigation:	
StormReady certification	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Firewise Communities Certification	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

Financial Assessment

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resources	Have capability?	If Yes...	
Capital Improvements Project funding	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past? <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Authority to levy taxes for specific purposes	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past? <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Fees for water, sewer, gas, and/or electric services	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past? <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Impact fees for new development	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past? <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Stormwater utility fee	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past? <div> <input type="checkbox"/> Yes </div>	<input type="checkbox"/> Yes

Funding Resources	Have capability?	If Yes...	
			<input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incurrence of debt through general obligation bonds and/or special tax bonds	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incur debt through private activities	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Community Development Block Grant	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Other federal funding programs (e.g. FEMA mitigation grants)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
State funding programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Funding Resources	Have capability?	If Yes...	
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	

How can these capabilities be expanded and improved to reduce risk?
<p>Actions that can expand and improve existing authorities, plans, policies, and resources for mitigation include budgeting and passing policies and procedures for mitigation actions, adopting and implementing stricter mitigation regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation updates to existing plans as new needs are recognized.</p>

City of West Tawakoni

Planning and Regulatory Assessment

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of natural hazards.

Type of Plans	Have capability?	Level	If Yes...		
Comprehensive or Master Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Capital Improvement Plan (CIP)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input type="checkbox"/> Region	to include in the mitigation strategy?		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Economic Development Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Local Emergency Operations Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Continuity of Operations Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input type="checkbox"/> Region	to include in the mitigation strategy?		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Transportation Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Stormwater Management Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Community Wildfire Protection Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input type="checkbox"/> Region	to include in the mitigation strategy?		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Green Infrastructure Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Parks or Open Space Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Hazard Mitigation Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Local <input type="checkbox"/> County	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input type="checkbox"/> Region	to include in the mitigation strategy?		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
Zoning Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Subdivision Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Floodplain Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Flood Insurance Rate Maps (FIRM)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the FIRM an effective measure for	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
	<input type="checkbox"/> N/A	reducing hazard impacts?		
		Is the FIRM adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Natural Hazard Specific Ordinance (e.g., stormwater, wildfire)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:
Acquisition of land for open space and public recreation uses	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Building Code, Permitting, and Inspections	Have capability?	
Building Code	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Version/Year: 2018 International Building Codes
Building Code Effectiveness Grading Schedule (BGEES) Score	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Score:
Fire Department ISO Rating	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Rating:
Site Plan Review Requirements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Review method:

Administrative and Technical Assessment

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions.

Administration	Have capability?	If Yes...
Planning Commission	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
Mitigation Planning Committee	<input type="checkbox"/> Yes	Describe capability: Identifies hazards, conducts a risk and vulnerability assessment, and creates and monitors mitigation actions.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: Public works cleans out the drainage system, and FEC Electric does tree trimming along right a-way.
Mutual Aid Agreements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability: MOU's are signed by Hunt County along with Quinlan and Hawk Cove.

Staff	Have capability? FT/PT*	If Yes...
*Full-time (FT) or part-time (PT) position		
Chief Building Official	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No
Floodplain Administrator	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No
Emergency Manager	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No
Community Planner	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No

Staff	Have capability? FT/PT*	If Yes...
*Full-time (FT) or part-time (PT) position		
	<input type="checkbox"/> N/A	<div>Is staff trained on natural hazards and mitigation?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>
Civil Engineer	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Is staffing adequate to enforce regulations?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>
		<div>Is staff trained on natural hazards and mitigation?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>
GIS Coordinator	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Is staffing adequate to enforce regulations?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>
		<div>Is staff trained on natural hazards and mitigation?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>
Public Works Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Is staffing adequate to enforce regulations?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>
		<div>Is staff trained on natural hazards and mitigation?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>
Fire Chief	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	<div>Is staffing adequate to enforce regulations?</div> <div><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</div>
		<div>Is staff trained on natural hazards and mitigation?</div> <div><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</div>
Environmental Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Is staffing adequate to enforce regulations?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>
		<div>Is staff trained on natural hazards and mitigation?</div> <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>

Technical	Have capability?	If Yes...
Warning Systems/Services	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability. Iris Computer notification system. The warning message is typed into the system, and notification is sent to subscriber's emails and cell phones (via voice and text message).

Technical	Have capability?	If Yes...
(e.g., Reverse 911, outdoor warning signals)		<div>Has capability been used to assess or mitigate risk in the past? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</div> <div>If yes, for what type of event? Severe thunderstorm warnings, flood warning, and tornado warnings.</div>
Hazard data and information	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Describe capability:</div> <div>Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No</div> <div>If yes, for what type of event?</div>
Grant writing	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Describe capability.</div> <div>Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No</div> <div>If yes, for what type of event?</div>
HaZUS analysis or GIS software	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Describe capability:</div> <div>Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No</div> <div>If yes, for what type of event?</div>

Education and Outreach Assessment

Education and outreach programs and methods can be used to implement mitigation activities and communicate hazard-related information.

Program or Organization	Have capability?	If Yes...
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</div> <div>Describe program or organization and how it relates to disaster resilience and mitigation:</div>
Ongoing public education or information program (e.g., responsible water use, fire	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Could the program or organization help implement future mitigation activities? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</div>

Program or Organization	Have capability?	If Yes...	
safety, household preparedness, environmental education)		Describe program or organization and how it relates to disaster resilience and mitigation:	
Natural disaster or safety related school programs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
Public/private partnership initiatives addressing disaster-related issues	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:	
StormReady certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Answer will be pre-filled.	
Firewise Communities Certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Answer will be pre-filled.	

Financial Assessment

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resources	Have capability?	If Yes...	
Capital Improvements Project funding	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Authority to levy taxes for specific purposes	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Funding Resources	Have capability?	If Yes...	
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Fees for water, sewer, gas, and/or electric services	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Impact fees for new development	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Stormwater utility fee	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incurrence of debt through general obligation bonds and/or special tax bonds	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	

Funding Resources	Have capability?	If Yes...	
Incur debt through private activities	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Community Development Block Grant	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Other federal funding programs (e.g. FEMA mitigation grants)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
State funding programs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	

How can these capabilities be expanded and improved to reduce risk?
Actions that can expand and improve existing authorities, plans, policies, and resources for mitigation include budgeting and passing policies and procedures for mitigation actions, adopting and implementing stricter mitigation regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation updates to existing plans as new needs are

recognized. Work with the Hunt County EMC and have key stakeholders certified in ICS classes. Have the Police Department work with Hunt County to expand knowledge.

City of Wolfe City

Planning and Regulatory Assessment

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of natural hazards.

Type of Plans	Have capability?	Level	If Yes...		
Comprehensive or Master Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Capital Improvement Plan (CIP)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Economic Development Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Local Emergency Operations Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Continuity of Operations Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Transportation Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Stormwater Management Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Community Wildfire Protection Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Green Infrastructure Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
		<input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Parks or Open Space Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Hazard Mitigation Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
Zoning Ordinance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Subdivision Ordinance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Floodplain Ordinance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Flood Insurance Rate Maps (FIRM)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the FIRM an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the FIRM adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Natural Hazard Specific Ordinance (e.g., stormwater, wildfire)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
		administered and enforced?		
Acquisition of land for open space and public recreation uses	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Building Code, Permitting, and Inspections	Have capability?	
Building Code	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Version/Year:
Building Code Effectiveness Grading Schedule (BGEES) Score	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Score:
Fire Department ISO Rating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Rating:
Site Plan Review Requirements	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Review method:

Administrative and Technical Assessment

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions.

Administration	Have capability?	If Yes...
Planning Commission	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
Mitigation Planning Committee	<input checked="" type="checkbox"/> Yes	Describe capability: Identifies hazards, conducts a risk and vulnerability assessment, and creates and monitors mitigation actions.
Maintenance programs to reduce risk (e.g., tree	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe capability:

trimming, clearing drainage systems)	<input type="checkbox"/> N/A	
Mutual Aid Agreements	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:

Staff	Have capability? FT/PT*	If Yes...
*Full-time (FT) or part-time (PT) position		
Chief Building Official	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No
Floodplain Administrator	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? ALSO HEALTH DEPT DIRECTOR <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Emergency Manager	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? ALSO FIRE MARSHAL <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Community Planner	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No
Civil Engineer	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No
GIS Coordinator	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No	Is staffing adequate to enforce regulations? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Staff	Have capability? FT/PT*	If Yes...	
*Full-time (FT) or part-time (PT) position			
	<input type="checkbox"/> N/A	Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Public Works Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Fire Chief	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Environmental Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Technical	Have capability?	If Yes...	
Warning Systems/Services (e.g., Reverse 911, outdoor warning signals)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability.	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?	
Hazard data and information	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?	

Technical	Have capability?	If Yes...
Grant writing	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability.
		Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?
HaZUS analysis or GIS software	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
		Has capability been used to assess or mitigate risk in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?

Education and Outreach Assessment

Education and outreach programs and methods can be used to implement mitigation activities and communicate hazard-related information.

Program or Organization	Have capability?	If Yes...
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:
Natural disaster or safety related school programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation:

Program or Organization	Have capability?	If Yes...	
Public/private partnership initiatives addressing disaster-related issues	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
StormReady certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe program or organization and how it relates to disaster resilience and mitigation:	
Firewise Communities Certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		

Financial Assessment

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resources	Have capability?	If Yes...	
Capital Improvements Project funding	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		Has the funding resource been used in past? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		If yes, for what type of mitigation activities?	
Authority to levy taxes for specific purposes	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		Has the funding resource been used in past? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		If yes, for what type of mitigation activities?	
Fees for water, sewer, gas, and/or electric services	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		Has the funding resource been used in past? <input type="checkbox"/> Yes	

Funding Resources	Have capability?	If Yes...	
			<input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Impact fees for new development	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Stormwater utility fee	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incurrence of debt through general obligation bonds and/or special tax bonds	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incur debt through private activities	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Community Development Block Grant	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Funding Resources	Have capability?	If Yes...	
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Other federal funding programs (e.g. FEMA mitigation grants)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
State funding programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	

How can these capabilities be expanded and improved to reduce risk?
<p>Actions that can expand and improve existing authorities, plans, policies, and resources for mitigation include budgeting and passing policies and procedures for mitigation actions, adopting and implementing stricter mitigation regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation updates to existing plans as new needs are recognized.</p>

Hunt County Unincorporated

Planning and Regulatory Assessment

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of natural hazards.

Type of Plans	Have capability?	Level	If Yes...		
Comprehensive or Master Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Capital Improvement Plan (CIP)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Economic Development Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Local Emergency Operations Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Continuity of Operations Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Transportation Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Stormwater Management Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Community Wildfire Protection Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Green Infrastructure Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Type of Plans	Have capability?	Level	If Yes...		
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Parks or Open Space Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Hazard Mitigation Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Local <input checked="" type="checkbox"/> County <input type="checkbox"/> Region	Does the plan address natural hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Does the plan identify projects to include in the mitigation strategy?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
			Can the plan be used to implement mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
Zoning Ordinance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Subdivision Ordinance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Floodplain Ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Flood Insurance Rate Maps (FIRM)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Is the FIRM an effective measure for reducing hazard impacts?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the FIRM adequately administered and enforced?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Natural Hazard Specific Ordinance (e.g., stormwater, wildfire)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is the ordinance an effective measure for reducing hazard impacts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
Acquisition of land for open space	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the ordinance an effective measure for	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Land Use Planning and Ordinances	Have capability?	If Yes...		
and public recreation uses	<input type="checkbox"/> N/A	reducing hazard impacts?		
		Is the ordinance adequately administered and enforced?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:

Building Code, Permitting, and Inspections	Have capability?	
Building Code	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Version/Year:
Building Code Effectiveness Grading Schedule (BGEES) Score	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Score:
Fire Department ISO Rating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Rating:
Site Plan Review Requirements	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Review method:

Administrative and Technical Assessment

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions.

Administration	Have capability?	If Yes...
Planning Commission	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
Mitigation Planning Committee	<input checked="" type="checkbox"/> Yes	Describe capability: Identifies hazards, conducts a risk and vulnerability assessment, and creates and monitors mitigation actions.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
Mutual Aid Agreements	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe capability:

	<input type="checkbox"/> N/A	
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Staff	Have capability? FT/PT*	If Yes...
*Full-time (FT) or part-time (PT) position		
Chief Building Official	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No
Floodplain Administrator	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? ALSO HEALTH DEPT DIRECTOR <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Emergency Manager	<input type="checkbox"/> Yes-FT <input checked="" type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? ALSO FIRE MARSHAL <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Community Planner	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No
Civil Engineer	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input type="checkbox"/> No
GIS Coordinator	<input checked="" type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input type="checkbox"/> No <input type="checkbox"/> N/A	Is staffing adequate to enforce regulations? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Is staff trained on natural hazards and mitigation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Public Works Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No	Is staffing adequate to enforce regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No

Staff	Have capability? FT/PT*	If Yes...
*Full-time (FT) or part-time (PT) position		
	<input type="checkbox"/> N/A	<div>Is staff trained on natural hazards and mitigation?</div> <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>
Fire Chief	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Is staffing adequate to enforce regulations?</div> <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>
		<div>Is staff trained on natural hazards and mitigation?</div> <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>
Environmental Director	<input type="checkbox"/> Yes-FT <input type="checkbox"/> Yes- PT <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<div>Is staffing adequate to enforce regulations?</div> <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>
		<div>Is staff trained on natural hazards and mitigation?</div> <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>

Technical	Have capability?	If Yes...
Warning Systems/Services (e.g., Reverse 911, outdoor warning signals)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability.
		<div>Has capability been used to assess or mitigate risk in the past?</div> <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>
		If yes, for what type of event?
Hazard data and information	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:
		<div>Has capability been used to assess or mitigate risk in the past?</div> <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>
		If yes, for what type of event?
Grant writing	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability.
		<div>Has capability been used to assess or mitigate risk in the past?</div> <div> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>

Technical	Have capability?	If Yes...	
		If yes, for what type of event?	
HaZUS analysis or GIS software	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Describe capability:	
		Has capability been used to assess or mitigate risk in the past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of event?	

Education and Outreach Assessment

Education and outreach programs and methods can be used to implement mitigation activities and communicate hazard-related information.

Program or Organization	Have capability?	If Yes...
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation: Many faith-based organizations have groups of volunteers ready to assist in a disaster.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation: The county alerts residents to burn bans in place.
Natural disaster or safety related school programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Describe program or organization and how it relates to disaster resilience and mitigation: Schools have disaster preparedness programs in place.
Public/private partnership initiatives addressing disaster-related issues	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the program or organization help implement future mitigation activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Program or Organization	Have capability?	If Yes...
		Describe program or organization and how it relates to disaster resilience and mitigation: The Local Emergency Planning Committee is a community-based organization that assists in preparing for emergencies, particularly those concerning hazardous materials.
StormReady certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Firewise Communities Certification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	

Financial Assessment

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resources	Have capability?	If Yes...	
Capital Improvements Project funding	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Authority to levy taxes for specific purposes	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Fees for water, sewer, gas, and/or electric services	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Funding Resources	Have capability?	If Yes...	
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Impact fees for new development	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Stormwater utility fee	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incurrence of debt through general obligation bonds and/or special tax bonds	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Incur debt through private activities	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	

Funding Resources	Have capability?	If Yes...	
Community Development Block Grant	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		If yes, for what type of mitigation activities?	
Other federal funding programs (e.g. FEMA mitigation grants)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	
State funding programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Could the resource be used to fund future mitigation actions?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Has the funding resource been used in past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		If yes, for what type of mitigation activities?	

How can these capabilities be expanded and improved to reduce risk?
<p>Actions that can expand and improve existing authorities, plans, policies, and resources for mitigation include budgeting and passing policies and procedures for mitigation actions, adopting and implementing stricter mitigation regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation updates to existing plans as new needs are recognized.</p>

Appendix C: NCTCOG Programs

The [North Central Texas Council of Governments \(NCTCOG\)](#) is a voluntary association of, by and for local governments, established to assist in regional planning. NCTCOG's purpose is to strengthen both the individual and collective power of local governments and to help them recognize regional opportunities, eliminate unnecessary duplication, and make joint decisions. NCTCOG consists of many departments that implement programs and projects that address the mitigation goals of the participating jurisdictions.

The Environment & Development Department at NCTCOG plays a major role in regional coordination and management of reports and projects that improve regional resilience to natural hazards through the following programs:

- **The Corridor Development Certificate (CDC)** – The CDC process aims to stabilize flood risk along the Trinity River. 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. A CDC permit is required to develop land within a specific area of the Trinity floodplain called the Regulatory Zone, which is similar to the 100-year floodplain.
 - Under the CDC process, local governments retain ultimate control over floodplain permitting decisions, but other communities along the Trinity River Corridor are given the opportunity to review and comment on projects in their neighbor's jurisdiction. As the Metroplex economy continues to grow and develop, the CDC process will prevent increased flood risks
- **NCTCOG-OneRain Contrail Flood Warning Software**- Contrail software that delivers automated real-time data collection, processing, validation, analysis, archiving and visualization of hydrometeorological and environmental sensor data.
- **The *integrated* Stormwater Management (iSWM) Program**- The iSWM™ Program for Construction and Development is a cooperative initiative that assists cities and counties to achieve their goals of water quality protection, streambank protection, and flood mitigation, while also helping communities meet their construction and post-construction obligations under state stormwater permits.
 - Development and redevelopment by their nature increase the amount of imperviousness in our surrounding environment. This increased imperviousness translates into loss of natural areas, more sources for pollution in runoff, and heightened flooding risks. To help mitigate these impacts, more than 60 local governments are cooperating to proactively create sound stormwater management guidance for the region through the *integrated* Stormwater Management (iSWM) Program.
- **16-County Watershed Management Initiative**- Communities from across the region come together to collaborate on how to reduce the risks of flooding in their communities.
- **Texas Smartscape**- Texas SmartScape™ is a landscape program crafted to be "smart" for North Central Texas. Based on water-efficient landscape principles, it promotes the use of plants suited to our region's soil, climate, and precipitation that don't require much—if any—additional irrigation, pesticides, fertilizer, or herbicides to thrive.

- The two main goals of the program are to:
 - Improve stormwater runoff quality
 - Conserve local water supplies
- The Transportation Department promotes the following programs:
- [Bicycle-Pedestrian](#)- The passage of the 1991 Intermodal Surface Transportation Efficiency Act prompted NCTCOG to include non-motorized transportation network improvements in regional planning efforts. NCTCOG established the Bicycle and Pedestrian program in 1992 to address the various activities related to implementing bicycle and pedestrian facilities as an alternative mode of regional transportation.
- [Sustainable Development](#)- As land uses influence regional travel patterns and demand on the transportation system, and transportation connects land uses and provides access to developments, both need to be planned in conjunction with one another. NCTCOG supports Sustainable Development: mixed-use, infill, and transit-oriented developments that reduce vehicle miles traveled, enable the use of alternative modes of transportation, promote economic development, and improve air quality.

Appendix D: Public Meeting Documents

The participants advertised public meetings to discuss the development of this Hazard Mitigation Action Plan, including the co-hosted meeting on August 21, 2019 at the Local Emergency Planning Committee (LEPC) Meeting in the Hunt County Courthouse. The announcements of the public meetings are below.

City of Caddo Mills



CADDO MILLS
SCHOOLS



WATER SERVICE



MUNICIPAL COURT



CADDO MILLS
AIRPORT



HOW DO I?



CADDO POLICE



City of Caddo Mills
CITY OF Caddo Mills
(903) 527-3116 - 2313 Main Street



WELCOME • COMMUNITY • GOVERNMENT • SERVICES • CONTACT

Public Notice

There will be a Public Hearing on the Caddo Mills HazMAP Mitigation Plan

On Wednesday August 21, 2019 at 10:00am at:

2700 Johnson St, Greenville, TX 75401



Event Calendar

- Sep 9, 2019
Planning & Zoning Board Meeting
- Sep 10, 2019
City Council Meeting
- Oct 8, 2019
City Council Meeting
- Oct 14, 2019
Planning & Zoning Board Meeting
- Nov 11, 2019
Planning & Zoning Board Meeting
- Nov 12, 2019
City Council Meeting

297



North Central Texas
Council of Governments



Host: Alayna Payne, NCTCOG
Telephone 817-704-5682
Email apayne@nctcog.org

FOR IMMEDIATE RELEASE
August 5, 2019

Contact: Hunt County Emergency
Management: 903-408-4282

PUBLIC MEETING SCHEDULED TO DISCUSS THE HUNT COUNTY HAZARD MITIGATION ACTION PLAN

August 5, 2019— A public meeting to discuss the Hunt County Hazard Mitigation Action Plan (HazMAP) is scheduled for Wednesday, August 21 after the LEPC Meeting held at 10AM, at Hunt County Commissioners Courtroom, located at 2700 Johnson Street, Greenville TX.


The participating jurisdictions in Hunt County are updating the current multi-jurisdictional Hazard Mitigation Action Plan (HazMAP) in order to create a more resilient and safer community for residents, businesses, and visitors. As natural hazards are becoming more frequent and damages more costly, mitigation actions are key to keeping the community safe. We are requesting citizen involvement in the update of the Hunt County HazMAP. By completing and updating the HazMAP, participating jurisdictions are entitled to apply for future federal relief dollars to fund specific mitigation projects, designed to reduce and/or eliminate vulnerabilities resulting from disaster events throughout the county.

During the meeting, the public is invited to make comments or suggestions. Local emergency management officials will be on hand to answer any questions. All comments received from the public will be documented and considered for inclusion in the HazMAP.


This HazMAP is being completed through a cooperative effort of officials from Hunt County and the cities of Caddo Mills, Commerce, Greenville, Lone Oak, Quinlan, West Tawakoni, and Wolfe City. The Quinlan Independent School District is also participating.

If you have questions, please contact your local Office of Emergency Management.





North Central Texas
Council of Governments



FOR IMMEDIATE RELEASE
August 13, 2019

Host: Alayna Payne, NCTCOG
Telephone: 817-704-5682
Email: apayne@nctcog.org

Contact: Hunt County Emergency
Management: 903-408-4282

**PUBLIC MEETING SCHEDULED TO DISCUSS
THE HUNT COUNTY HAZARD MITIGATION ACTION PLAN**


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If you have questions, please contact your local Office of Emergency Management.



2019 08 13 11:11:11 AM



North Central Texas
Council of Governments



Host: Alayna Payne, NCTCOG
Telephone: 817-704-5682
Email: apayne@nctcog.org

FOR IMMEDIATE RELEASE
August 5, 2019

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If you have questions, please contact your local Office of Emergency Management.



PUBLIC MEETING SCHEDULED TO DISCUSS
THE HUNT COUNTY HAZARD MITIGATION ACTION PLAN

August 23, 2019

Quinlan ISD and the City of Quinlan will join together for a brief public meeting to discuss the Hunt County Hazard Mitigation Action Plan (HazMAP) and is scheduled for 6:00 PM on Thursday, August 29th in the meeting room of the Quinlan City Council Chambers located at 104 E. Main St., Quinlan, TX 75474.

The participating jurisdictions in Hunt County are updating the current multi-jurisdictional Hazard Mitigation Action Plan (HazMAP) in order to create a more resilient and safer community for residents, businesses, and visitors. As natural hazards are becoming more frequent and damages more costly, mitigation actions are key to keeping the community safe. We are requesting citizen involvement in the update of the Hunt County HazMAP. By completing and updating the HazMAP, participating jurisdictions are entitled to apply for future federal relief dollars to fund specific mitigation projects, designed to reduce and/or eliminate vulnerabilities resulting from disaster events throughout the county.

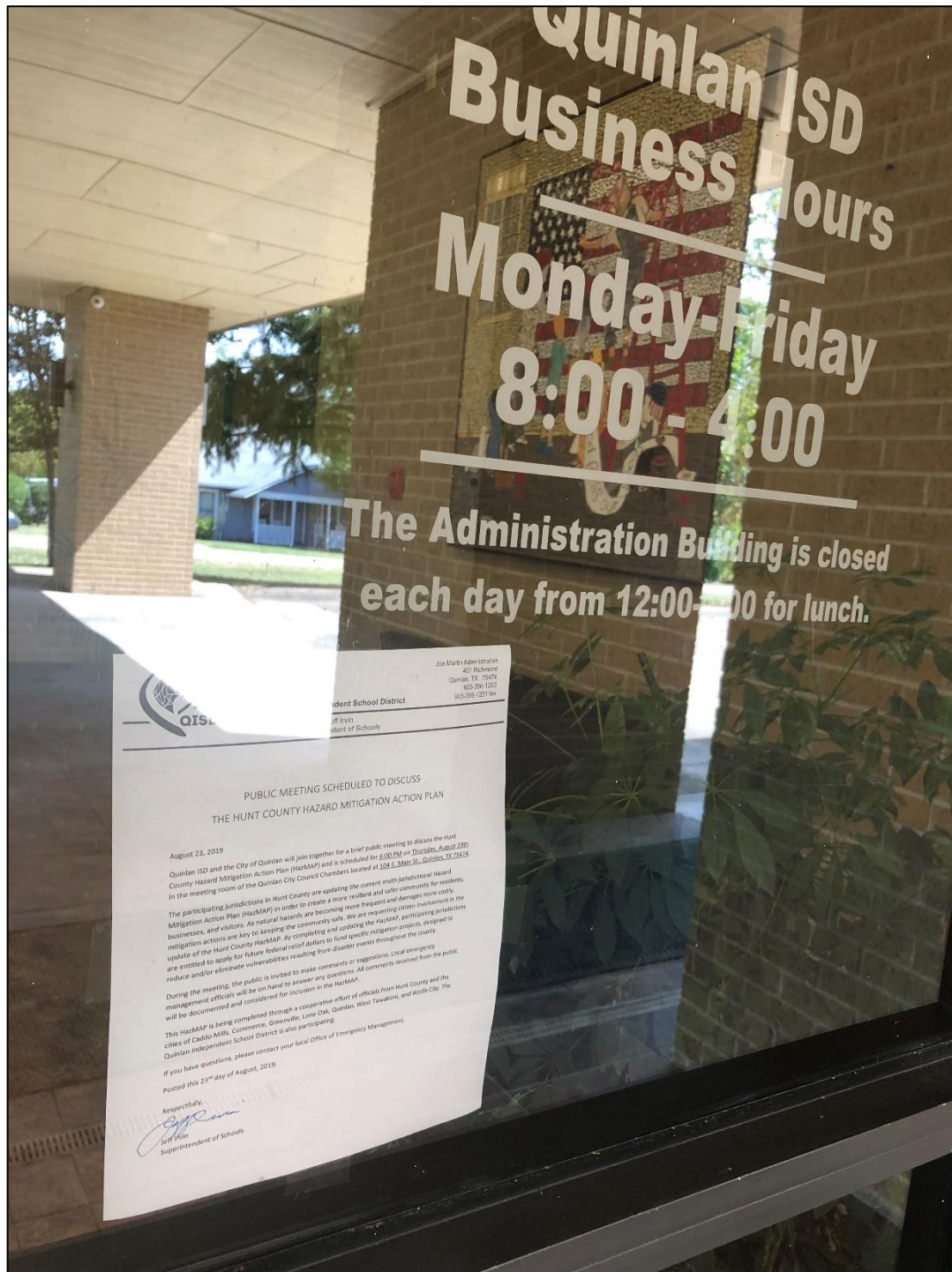
During the meeting, the public is invited to make comments or suggestions. Local emergency management officials will be on hand to answer any questions. All comments received from the public will be documented and considered for inclusion in the HazMAP.

This HazMAP is being completed through a cooperative effort of officials from Hunt County and the cities of Caddo Mills, Commerce, Greenville, Lone Oak, Quinlan, West Tawakoni, and Wolfe City. The Quinlan Independent School District is also participating.

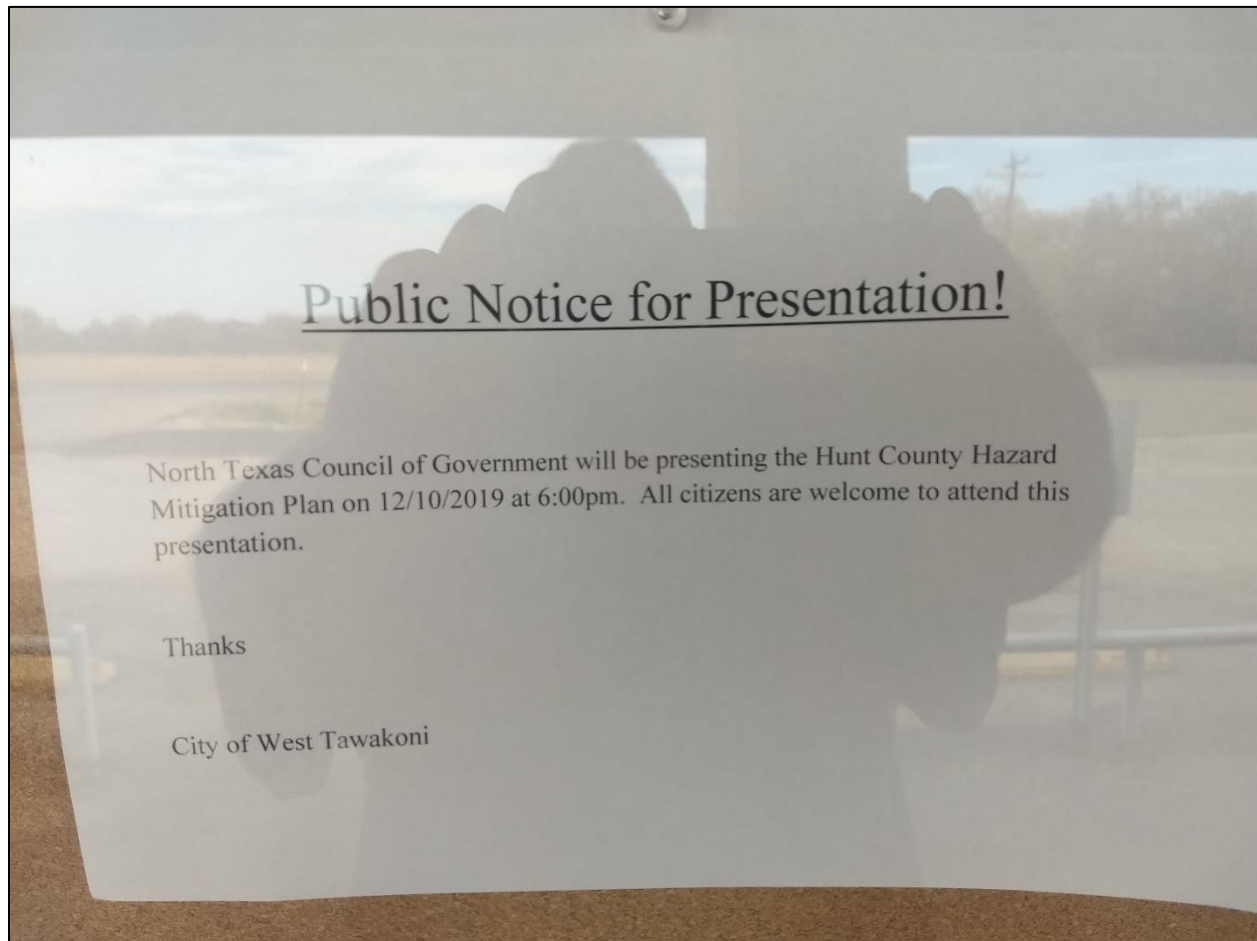
If you have questions, please contact your local Office of Emergency Management.
Posted this 23rd day of August, 2019.

Respectfully,


Jeff Irvin
Superintendent of Schools



City of West Tawakoni





North Central Texas
Council of Governments

Host: Alayna Payne, NCTCOG
Telephone: 817-704-5682
Email: apayne@nctcog.org

FOR IMMEDIATE RELEASE
August 5, 2019

Contact: Hunt County Emergency
Management: 903-408-4282

PUBLIC MEETING SCHEDULED TO DISCUSS THE HUNT COUNTY HAZARD MITIGATION ACTION PLAN

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If you have questions, please contact your local Office of Emergency Management.



2019

Meeting Scheduled For August 21, 2019, Will Be Held At *Hunt County Commissioners Court, 2700 Johnson Street, Greenville Texas*

Public Meeting For August 21, 2019 Press Release

Minutes_2019-05-15

Agenda_2019-8-21

Minutes_2019-02-20

Agenda_2019-5-15

Local Emergency Planning Committee Hunt County, TX

Contact Us

Meetings

[Home](#) » Meetings

Third Wednesday Of February, May, August, And November

At 10:00 AM

Location: Hunt Regional Medical Center

4215 Joe Ramsey Blvd, 6th floor Boardroom

Greenville TX 75402

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Appendix E: Local Planning Teams

The following tables identify the members of the Local Planning Team (LPT) from each participating jurisdiction.

City of Caddo Mills		
Agency/Organization	Position	Role in LPT
Administration	City Manager	General oversight, hazard identification, and plan development
Public Works Department	Director	Hazard identification and plan development
Fire Department	Assistant Fire Chief	Hazard identification and plan development
Police Department	Police Chief	Hazard identification and plan development
Caddo Mills ISD	Superintendent	Hazard identification and plan development
City of Commerce		
Agency/Organization	Position	Role in LPT
Commerce Police Department	Emergency Management Coordinator/Patrol Sergeant	General oversight hazard identification, and plan development
Commerce Fire Department	Assistant Emergency Management Coordinator/ Fire Chief	General oversight hazard identification, and plan development
City Administration	Emergency Management Secretary/PIO/City Secretary	Hazard identification and plan development
Finance Department	Accounting Supervisor	Hazard identification and plan development
Commerce Police Department	Emergency Management Coordinator/Patrol Sergeant	Hazard identification and plan development
Commerce Fire Department	Assistant Emergency Management Coordinator/ Fire Chief	Hazard identification and plan development
City of Greenville		
Agency/Organization	Position	Role in LPT
Office of Emergency Management	Emergency Management Coordinator	General oversight, hazard identification, and plan development
Public Works Department	Director	Hazard identification and plan development
Police Department	Chief	Hazard Identification and plan development
Fire Department	Chief	Hazard identification and plan development

City Manager Office	City Manager	Hazard Identification and plan development
City of Lone Oak		
Agency/Organization	Position	Role in LPT
Police Department	Police Chief	General oversight hazard identification, and plan development
Public Works Department	Director	General oversight hazard identification, and plan development
Fire Department	Fire Chief	Hazard identification and plan development
Administration	City Secretary	Hazard identification and plan development
Lone Oak ISD	School Resource Officer	Hazard identification and plan development
Lone Oak ISD	School Maintenance Director	Hazard identification and plan development
City of Quinlan		
Agency/Organization	Position	Role in LPT
Administration	Mayor	General oversight hazard identification, and plan development
Administration	City Administrator	General oversight hazard identification, and plan development
Public Works Department	Director	Hazard identification and plan development
Police Department	Police Chief	Hazard identification and plan development
City of Quinlan ISD		
Agency/Organization	Position	Role in LPT
Administration	Superintendent	General oversight hazard identification, and plan development
Administration	Executive Assistant	Hazard identification and plan development
City of West Tawakoni		
Agency/Organization	Position	Role in LPT
Administration	Mayor	General oversight hazard identification, and plan development
Administration	City Administrator	General oversight hazard identification, and plan development
Public Works Department	Director	Hazard identification and plan development
City of Wolfe City		
Agency/Organization	Position	Role in LPT
Administration	City Secretary	General oversight hazard identification, and plan development

Hunt County Unincorporated		
Agency/Organization	Position	Role in LPT
Office of Emergency Management	Assistant Emergency Management Coordinator	General oversight hazard identification, and plan development
Office of Emergency Management	Emergency Management Coordinator	General oversight hazard identification, and plan development
Environmental Department	Investigator	Hazard identification and plan development
Environmental Department	Investigator	Hazard identification and plan development
Health Department	Director	Hazard identification and plan development
GIS Management	Director	Hazard identification and plan development
Public Works Department	Precinct Foreman	Hazard identification and plan development
Sheriff's Department	Deputy Sheriff	Hazard identification and plan development
Office of the County Judge	Executive Assistant	Hazard identification and plan development