HAZARD MITIGATION ACTION PLAN

FOR

MORRIS COUNTY TEXAS

AND THE JURISDICTIONS OF

DAINGERFIELD, LONE STAR, NAPLES, AND OMAHA

Five Year Update

Incorporated and Unincorporated Areas

DEVELOPED BY ARK-TEX COUNCIL OF GOVERNMENTS

2025

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PURPOSE

The goal of all mitigation efforts is long-term risk reduction. The emphasis on sustained actions to reduce long-term risk differentiates mitigation from preparedness and response tasks that are required to survive a disaster and from recovery tasks, which are the return to pre-disaster status. Mitigation actions following a disaster focus on making the situation safer and better than before the incident occurred. Mitigation is an essential component of emergency management. Effective mitigation actions can decrease the impact, the requirements, and the expense of future hazard events. None of the communities in this plan have been designated for special consideration because of minority or poor populations.

Hazard mitigation planning is never ending. The primary purpose of this plan is to ensure that the residents, visitors, and businesses in Morris County, Texas are safe and secure from natural hazards by reducing the risk and vulnerability before disasters happen, through federal, state, and local community communication, public education, research, and data analysis. This plan is intended to serve as a guide in coordinating and implementing hazard mitigation policies, programs, and projects.

The Morris County Emergency Management Plan has been developed, and the assessment level of planning preparedness is Intermediate. The Mitigation Action Plan update will only serve to enhance the County's already considerable capabilities in recognizing, planning for, responding to, and recovering from disaster. The County's history of careful development, monitoring, and integration of emergency management and hazard mitigation planning is testament to its standing commitment to make the jurisdictions as resistant as possible.

The Plans, ordinances, maps, and codes were reviewed by the Hazard Mitigation Committee and staff before mitigation action items and implementation strategies were determined. Information gathered from the Plans, ordinances, maps, permits, and codes were considered and incorporated into this Hazard Mitigation Plan. The lack of various plans and codes were considered also. This was factored in when considering the various mitigation action items and implementation strategies.

We cannot control natural phenomena such as floods, tornadoes, winter storms, wildfires, and other hazardous events. Despite their destructiveness, these occurrences are part of the natural system.

While we cannot prevent natural hazards, we can reduce some of their adverse consequences. We can avoid the worst-case scenario when a hazard does occur by managing the known characteristics of the hazard.

The following were considered in the plan development.

- What hazards could occur
- Frequency of occurrence
- Hazards impact on community and severity of impact
- Vulnerability to each hazard
- Hazards with greatest risks
- Prioritized mitigation actions

PLAN ORGANIZATIONAL STRUCTURE

Ark-Tex Council of Governments (ATCOG) is an organization comprised of city and county governments, colleges, service organizations, school districts, chambers of commerce, etc., with the goal to build strength through regional cooperation. It is through this regional cooperation that ATCOG can serve its members by working to continually improve the economic, social, educational, and safety aspects of life for citizens of Morris County.

ATCOG served as the coordinating agency for the development of the plan. As the coordinator, ATCOG had many responsibilities including administration, content organization, and text development. The following is a summary of ATCOG's responsibilities for the plan:

- Assign a lead planning staff member to provide technical assistance and necessary data to the Morris County Hazard Mitigation Planning Team (HMPT).
- Schedule, coordinate and facilitate community meetings with the assistance of the planning team.
- Provide any necessary materials, handouts, etc., necessary for public planning meetings.
- Work with the planning team to collect and analyze data and develop goals and implementation strategies.
- Prepare, based on community input and team direction, the first draft of the plan and provide technical writing assistance for review, editing and formatting.
- Coordinate with stakeholders within the cities and the unincorporated areas of the County during plan development.
- Submit the final plan to the State of Texas and provide follow-up technical assistance to the Morris County Community Mitigation Planning Team to correct any noted deficiencies after the review of the plan by the State of Texas.
- Upon approval by the State of Texas, submit the updated plan to FEMA and provide follow up technical assistance to the Morris County Community Mitigation Planning Team to address any noted deficiencies after the review of the plan by FEMA.
- Coordinate adoption and final approval process by all City and Town Councils and the Commissioners Court of the updated and approved FEMA plan.
- Submit a final plan, with adoption documentation and approval signatures for all participating jurisdictions, to the State and FEMA and ensure the plan is noted as complete and approved by both agencies.
- Prepare for and attend City Council/Commissioners Court/public meetings during plan consideration and plan adoption process.
- Complete and acquire approval of all necessary forms associated with the application for Morris County's Multi-Jurisdictional Hazard Mitigation Grant.

A Multi-Jurisdictional Hazard Mitigation Planning Team (HMPT) was formed consisting of representatives appointed by local jurisdictions to work together with ATCOG in the plan development. The team's primary duties were:

- Ensure that the Morris County HMPT includes representatives from the neighborhood stakeholder groups. Each participating city must provide at least one representative to the county team and provide active support and input. ATCOG will approve the final composition of the planning team.
- Assist ATCOG staff with identifying hazards and estimating potential losses from future hazard events.
- Assist ATCOG in developing and prioritizing mitigation actions to address the identified risks.

- Assist ATCOG in coordinating meetings to develop the plan.
- Identify the community resources available to support the planning effort.
- Assist with recruiting participants for planning meetings.
- Gain the support of neighborhood stakeholders for the recommendations resulting from the planning process.
- After adoption, appoint members to a committee to monitor and work toward plan implementation.
- After adoption, publicize the plan to neighborhood interests and ensure new community members are aware of the plan and its contents.
- After the State of Texas and FEMA approval of the plan, assume responsibility for bringing the plan to life by ensuring it remains relevant by monitoring progress, through regular maintenance and implementation projects.

THE PLANNING PROCESS

Benefits of Mitigation Planning

1. Increases public awareness and understanding of vulnerabilities as well as support for specific actions to reduce losses from future natural disasters.
2. Builds partnerships with diverse stakeholders, increasing opportunities to leverage data and resources in reducing workloads as well as achieving shared community objectives.
3. Expands understanding of potential risk reduction measures to include structural and regulatory tools, where available, such as ordinances and building codes.
4. Informs development, prioritization, and implementation of mitigation projects. Benefits accrue over the life of the project as losses are avoided from each subsequent hazard event.

The Multi-Jurisdictional Planning Process

A multi-jurisdiction plan was chosen to best prepare the communities of Morris County for Hazards. The Ark Tex Council of governments worked hand in hand with the jurisdictions within the planning area of Morris County to develop the current plan. It is through this regional cooperation that ATCOG can serve its members by working to continually improve the economic, social, educational, and safety aspects of life for citizens.

Mitigation plans need to be a living document and to ensure this the plan must be monitored, evaluated, and updated on a five-year or less cycle. This includes incorporating the mitigation plan into county and local comprehensive or capital improvement plans as they are developed.

Organize Resources

Effective planning efforts result in practical and useful plans, but written plans are only one element in the process. The planning process is as important as the plan itself. A successful planning process organizes resources by encouraging cooperation and bringing together a cross-section of government agencies, local entities, concerned citizens and other stake holders to reach consensus on how to achieve a desired outcome or resolve a community issue. Applying a community wide approach and including multiple aspects adds validity to the plan. Those involved gain a better understanding of the problem and how solutions and actions were devised. The result is a common set of community values and widespread support for directing financial, technical, and human resources to an agreed upon action.

- ✓ 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. This was done by having public meetings that were advertised with notices in public places, websites and newspaper.

- ✓ The Hazard Mitigation Planning process was explained to each participant and information was shared on hazards, mitigation strategies, and edits to the plan update.

- ✓ The review and incorporation of appropriate existing plans, studies, reports, technical information, and other research was included into the plan during its drafting process.

- ✓ Support and information were obtained from other government programs and agencies such as the National Flood Insurance Program (NFIP), Natural Resources Conservation Service (NRCS), US Geological Survey (USGS), NOAA Weather, etc.

Risk and Vulnerability Assessment

The plan must be reactive to the hazards that face the community. It is not sufficient to just identify the hazards. The potential consequences of these hazards must be assessed. This phase included identifying and profiling all hazards, assessing vulnerability and risk. Research into the history of Morris County to document past disasters was required. Local libraries, national weather records and the life experiences from residents were used to assess the plan.

A general assessment included using residents, historical data, Texas State Mitigation Plan, Local or Regional Reports, Strategic Plans, Flood Studies, and other data to establish the following:

- ♦ The type, location and extent of all hazards that can affect the jurisdiction, both historically and in the future.
- ♦ Past occurrences of hazard events in or near the community and the severity, duration, and the resulting influences on the area.
- ♦ Description of the jurisdiction's vulnerability to those hazards including types and numbers of existing and future buildings, infrastructure, and critical facilities in identified hazard areas.
- ♦ Probability or likelihood of hazard occurrence.
- ♦ General description of land use and development trends for future land use decisions.

The development of a Multi-Jurisdictional Hazard Mitigation Plan involves the use of many types of information including historical data on previous disasters, information on critical infrastructures, zoning and flood plains maps, records, charts, etc., from many sources.

Developing Mitigation Strategies

Written Strategies were developed to demonstrate how Morris County, Texas intends to reduce losses identified in the Risk Assessment. It includes goals and objectives to guide the selection of mitigation activities and reduce potential losses. This is a blueprint for reducing the potential losses identified in the risk assessment. The Mitigation Strategy also includes:

- A description of mitigation objectives meant to reduce long-term vulnerabilities. These objectives were identified by the HMPT using hazard profiles, survey assessments, etc.
- Identification and a comprehensive analysis of a range of mitigation actions and projects.
- An Action Plan describing how the mitigation actions and projects were prioritized, and how they would be implemented and administered.

Resource Information

Resource information was obtained from the following government programs and agencies:

The National Flood Insurance Program (NFIP) provided information about flooding and actions needed to satisfy compliance with NFIP.

The US Geological Survey (USGS) provided information that was incorporated into the hazards of drought and flooding.

Morris County Appraisal District provided information on property values.

Natural Resources Conservation Service (NRCS) provided information about water management and climate change that are found in the identified hazards of drought and extreme heat.

The State of Texas Hazard Mitigation Plan helped to develop the common language used in the Morris Mitigation Plans.

Texas Wildfire Risk Assessment Portal (TXWRAP) provided statistical graphs and maps regarding wildfire activity in Morris County. This information is found in the wildfire section of the plan.

Texas A & M Forest Service provided information for the wildfire section of the plan.

NOAA Weather web site provided information regarding past occurrences, climate data and global warming.

The US Census Bureau provided statistics and population information found throughout the plan.

FEMA National Risk Index provided information for the probability of an event occurring.

Team Members were informed of the progress, discussed issues, and were notified of any changes to FEMA guidelines for the creation of the plan. Existing plans were reviewed to determine how they might be incorporated into the plan update. The Emergency Management Coordinator of Morris County and the Mayors (or their appointees) of Daingerfield, Lone Star, Naples, and Omaha will oversee the Mitigation Plan.

Adoption, Implementation and Maintenance:
This describes the system that Morris County and the participating jurisdictions have established to monitor the plan; provides a description of how, when, and by whom the HMPT process and mitigation actions will be evaluated; presents the criteria used to evaluate the plan; and explains how the plan will be maintained and updated.

Through citizen involvement, the plan reflects community issues, concerns, and new ideas and perspectives on mitigation opportunities. Mitigation team members consist of representatives from various county departments and representatives from private organizations, businesses, and various city government officials. Morris County entered into a contract with The Ark-Tex Council of Governments Texarkana, Texas, to develop the plan. The Mitigation Action Team assisted in developing plan goals and action items and shared their expertise to create a more comprehensive plan.

Newspaper postings helped publicize the plan update to neighboring counties and non-profits or other interested parties. The Ark-Tex Council of Governments staff have also met numerous times, had numerous telephone conversations, and worked individually with officials and employees from the County and each of the cities in gathering the data necessary for the plan.

Upon approval by FEMA the plan will be submitted to the County by the Mitigation Planner for final signatures. The Plan will be available for public viewing at the County seat and at City Hall of Daingerfield, Lone Star, Naples, and Omaha.

MORRIS COUNTY

County government is spelled out in the Texas Constitution, which makes counties functional agents of the state. Thus, counties, unlike cities, are limited in their actions to areas of responsibility specifically spelled out in laws passed by the legislature.

At the heart of each county is the commissioner's court. Morris County has four precinct commissioners and a county judge who serves on this court. This body conducts the general business of the county and oversees financial matters. The major elective offices found include the county attorneys, county and district clerks, county treasurer, tax assessor-collector, justices of the peace, and constables. There is an auditor appointed by the district courts.

PARTICIPATING JURISDICTIONS

The plan is a result of a joint effort between Morris County officials, mayors, council members, and employees of the cities of Daingerfield, Lone Star, Naples, and Omaha. At least one representative from each of these entities participated in the formation of this plan and update.

Economic Considerations

Morris County and the jurisdictions of Daingerfield, Lone Star, Naples, and Omaha have very limited budgets. Their tax base and annual budgets are low. They will have to rely on grants and volunteerism to accomplish the bulk of the projects. Morris County experienced a 0% growth rate between 2010 to 2020. Texas has 254 counties and Morris County is ranked 188 in median household income. Morris County is the fifth-smallest county in Texas by land area.

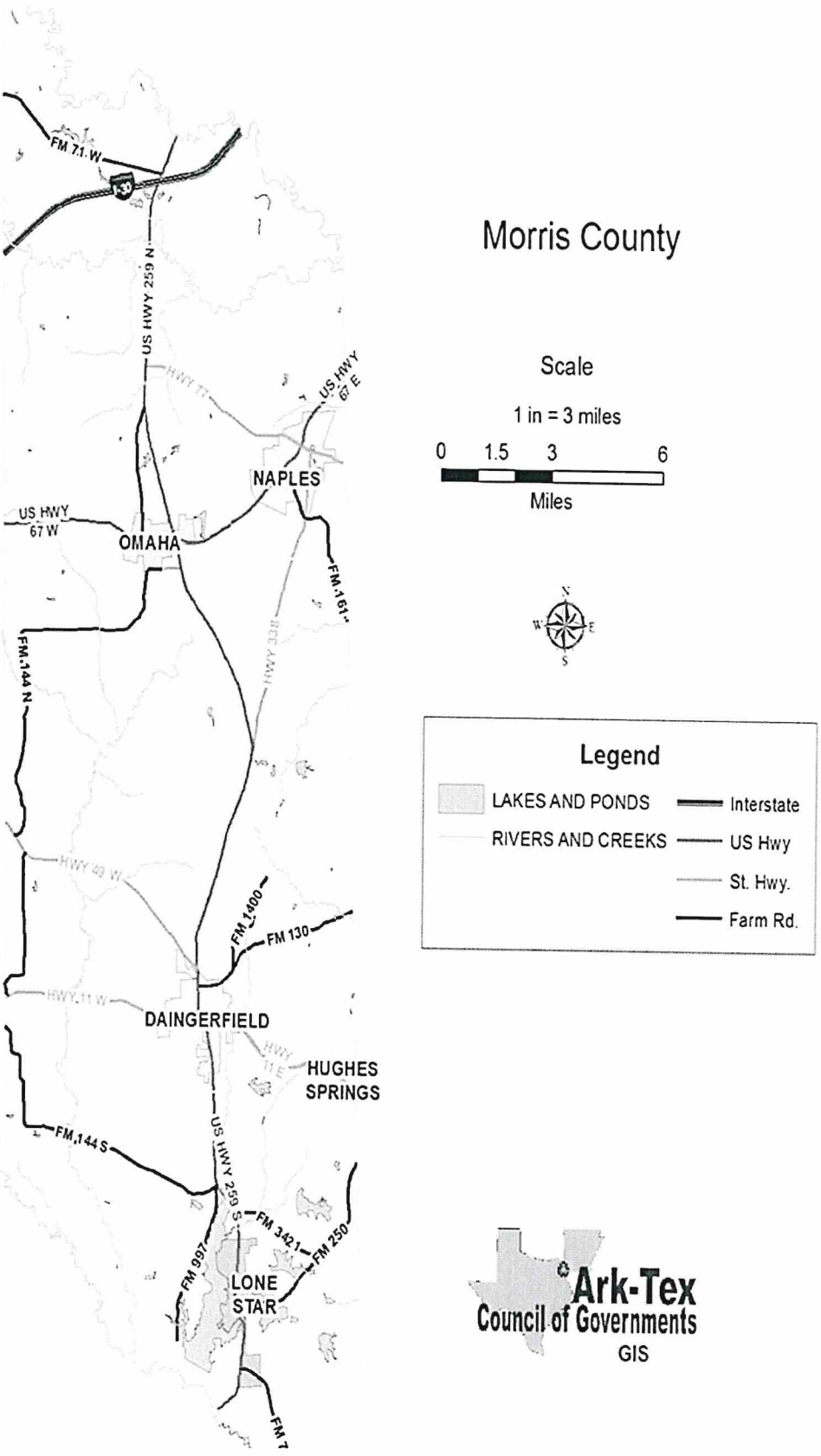
Morris County Jurisdictions Ranked by Population		
Ranking	Jurisdiction	Population
1	Unincorporated Morris County	4,892
2	Daingerfield	2,522
3	Lone Star	1,993
4	Naples	1,387
5	Omaha	1,179

Demographic Data

Estimates July 1, 2023	Morris County, Texas	State of Texas
Age and Sex		
Persons under 5 years (%)	5.3 %	6.3%
Persons under 18 years (%)	22.7%	24.8%
Persons 65 years and over (%)	22.4%	13.7%
Female persons (%)	52.5%	50.1%
Race and Hispanic Origin		
White alone (%)	72.1%	76.8%
Black or African American alone (%)	22.1%	13.6%
American Indian and Alaska Native alone (%)	1.6%	1.1%
Asian alone (%)	0.9%	6.0%
Native Hawaiian and Other Pacific Islander alone (%)	0.1%	0.2%
Two or More Races (%)	3.1%	2.3%
Hispanic or Latina (%)	11.6%	39.6%
White alone, not Hispanic or Latino (%)	62.6%	39.8%
Health		
With a disability, under 65 (2019-2023) (%)	14.7%	8.4%
Persons without health insurance, under 65 (%)	16.7%	18.7%
Population Characteristics		
Foreign born persons, 2019-2023 (%)	6.1%	17.2%
Veterans, 2019-2023	1,118	1,408,009
Education		
High school graduate or higher, persons age 25 years+, 2019-2023 (%)	87.1%	85.7%
Bachelor's degree or higher, persons age 25 years+, 2019-2023 (%)	15.5%	33.1%
Economy		
In civilian labor force, total population age 16 years+, 2019-2023 (%)	54.8%	64.7%
In civilian labor force, female, population age 16 years+, 2019-2023 (%)	51.2%	58.9%
Income and Poverty		
Persons in poverty (%)	19.3%	13.7%
Median household income (in 2022 dollars), 2019-2023	$55,082	$76,292
Housing		
Owner-occupied housing unit rate, 2019-2023 (%)	75.4.9%	62.6%
Median value of owner-occupied housing units, (2019-2023)	$110,200	$260,400
Median Gross Rent, 2019-2023	$824	$1,339
Computer and Internet Use		
Households with a computer, 2019-2023 (%)	94.5%	95.6%
Households with a broadband Internet subscription 2019-2023 (%)	84.4%	90.0%
Transportation		
Mean travel time to work (minutes), worker age 16+, 2019-2023	26.1	26.7

Data Source: census.gov/quickfacts/fact/table/morriscountytexas,TX/PST045224

MORRIS COUNTY TEXAS


Morris County
Scale
1 in = 3 miles
0 1.5 3 6
Miles
Legend
LAKES AND PONDS
RIVERS AND CREEKS
Interstate
US Hwy
St. Hwy.
Farm Rd.
FM 71 W
US HWY 259 N
US HWY 67 E
NAPLES
US HWY 67 W
OMAHA
FM 161
FM 144 N
HWY 49 W
FM 1400
FM 130
HWY 11 W
DAINGERFIELD
HWY 11 E
HUGHES SPRINGS
FM 144 S
US HWY 259 S
FM 3421
FM 250
FM 997
LONE STAR
FM 7
Ark-Tex Council of Governments
GIS

PARTICIPATING JURISDICTIONS

The Morris County Hazard Mitigation Plan consists of Morris County and the jurisdictions of Daingerfield, Lone Star, Naples, and Omaha.

The plan is a result of a joint effort between Morris County officials, mayors, and employees of the cities of Daingerfield, Lone Star, Naples, and Omaha. Each of these entities has participated in the formation of this plan and update.

The Hazard Mitigation Team assisted in developing plan goals and action items by using their own skills sets and knowledge to create a more comprehensive plan. A variety of backgrounds and experiences were evident in the team members, thus providing an eclectic view of mitigation needs and solutions.

Team meetings, telephone calls and e-mail communication played a role in team member contact and plan completion. A kick-off meeting was held at the Daingerfield Fire Department on February 24, 2025, at 9:30am. Representatives of Morris County, Daingerfield, Lone Star, Naples, and Omaha were in attendance.

HAZARD MITIGATION TEAM MEMBERS

Chuck Clemens	EMC, Morris County
Michelle Jones	City Manager, Daingerfield
Jerry Dorough	Public Works Director, Lone Star
Arrique Bernard	Public Works Director, Naples
Brandon Singletary	Omaha Volunteer Fire Department

Morris County Team Members
Background and Contributions

Chuck Clemens

Chuck Clemens is the Emergency Management Coordinator for Morris County. He was the main contact person for the Morris County Hazard Mitigation Update. He provided information necessary to build the team. He participated in the Hazard Mitigation Kickoff Meeting. Mr. Clemens gave input on the hazards to be profiled in this update as well as helped with the review of the 2017 Mitigation Actions. He provided information on Fire Departments, Critical Facilities, and Capability Assessment for the plan. He was available for correspondence by phone or email.

Michelle Jones

Michelle Jones is the City Manager of Daingerfield. She participated in the Hazard Mitigation Kickoff Meeting. Mrs. Jones gave input on the hazards to be profiled in this update as well as helped with the review of the 2017 Mitigation Actions. She provided information for capability assessment and critical facilities. She was available for correspondence by phone and email.

Jerry Dorough

Jerry Dorough is the Public Works Director for the city of Lone Star. He participated in the Hazard Mitigation Kickoff Meeting. Mr. Dorough gave input on the hazards to be profiled in this update as well as helped with the review of the 2017 Mitigation Actions. He gave feedback on new mitigation actions and critical facilities. He was available for correspondence by phone or email.

Arrique Bernard
Arrique Bernard is the Public Works Director for the City of Naples. He participated in the Hazard Mitigation Kickoff Meeting. Mr. Bernard gave input on the hazards to be profiled in this update as well as helped with the review of the 2017 Mitigation Actions. He was available for correspondence by phone or email.

Brandon Singletary
Brandon Singletary is the representative for the City of Omaha. He participated in the Hazard Mitigation Kickoff Meeting. Mr. Singletary gave input on the hazards to be profiled in this update as well as helped with the review of the 2017 Mitigation Actions. He was available for correspondence by phone or email.

Morris County Area Stakeholders
A list of stakeholders was developed, and contacts were made by phone and/or by e-mail. The list includes the neighboring county judges, members of the school system, and local non-profit agencies. To reach the widest audience possible, especially socially vulnerable populations, Morris County Included the Housing Authority, Salvation Army, charity organizations, and community health clinics in the stakeholder list. A draft of the plan was posted on the Morris County Website on DATE and notices were sent to stakeholders on DATE.

Insert stakeholder response if any.

Area Stakeholder Contacts

Title	Company	Location	Type of Contact
Superintendent	Daingerfield/Lone Star ISD	Daingerfield, TX	Email
Superintendent	Pewitt ISD	Omaha, TX	Email
Judge	Bowie County	New Boston, TX	Email
Judge	Camp County	Pittsburg, TX	Email
Judge	Cass County	Linden, TX	Email
Judge	Red River County	Clarksville, TX	Email
Judge	Titus County	Mt. Pleasant, TX	Email
Director	Community Services of Northeast Texas	Linden, TX	Email
Director	Salvation Army	Texarkana, AR	Email
Clerk	Housing Authority	Daingerfield, TX	Email
Director	Housing Authority	Omaha, TX	Email
Director	Housing Authority	Naples, TX	Email
Director	Morris County Collaborative	Daingerfield, TX	Email
Director	Franklin County Rural Health Clinic	Mt. Vernon, TX	Email
Director	Safe T Crisis Center	Mt. Pleasant, TX	Email
Director	Family Care Center	Daingerfield, TX	Email

Public Participation

Public participation is a key component to strategic planning processes. Citizen participation offers citizens the chance to voice their ideas, interests, and opinions. Opportunities were given to the citizens of Morris County to participate in planning and to review the plan. Special consideration was given to the socially vulnerable and underserved by sending information and the link to the plan to stakeholders who come in contact with these populations. The intent was to provide these agencies with information to share and/or provide feedback for the underserved and socially vulnerable communities.

On DATE a plan draft was posted on the Morris County website. Contact information was posted on the site. Notices were posted at the courthouse and the county clerk's office on DATE and in the local newspaper running DATES. List information on public comment if any.

SECTION II: Hazard Identification and Assessment

Extreme Weather and Climate Change

Currently there is a strong scientific consensus that the Earth is warming and that this warming is mainly caused by human activities. This consensus is supported by various studies of scientists' opinions and by position statements of scientific organizations, many of which explicitly agree with the Intergovernmental Panel on Climate Change (IPCC) synthesis reports.

Nearly all publishing climate scientists (97-98%) support the consensus on anthropogenic climate change, and the remaining 3% of contrarian studies either cannot be replicated or contain errors.

One of the most visible consequences of a warming world is an increase in the intensity and frequency of extreme weather events. The National Climate Assessment finds that the number of heat waves, heavy downpours, and major hurricanes has increased in the United States, and the strength of these events has increased, too.

There are no national or major scientific institutions anywhere in the world that would dispute the theory of anthropogenic climate change ***that will increase the likelihood of unstable weather patterns.***

Climate models have previously shown that Earth will see more heavy rainstorms as the atmosphere warms, but a new climate model developed by NASA researchers is the first to show the difference in strength between storms that occur over land and those over the ocean and how storms strengths will change in general.

These conclusions are particularly unwelcome news for the storm-prone portions of the central and eastern United States, where strong winds are a major source of weather-related casualties. Also, according to NASA, Global warming will make severe thunderstorms and tornadoes a more common feature of U.S. weather.

The western United States will not catch a break either – while it is expected to get drier, the storms that so form are likely to have more lightning, which could then trigger more wildfires.

No single weather event can be directly attributed to climate change. But as the globe warms up, Americans can expect more storms bearing done on much of the United States, scientist say.

Even increased snowfall has a climate change connection. That is not because the Feb. 1, 2011, storm can be linked to rising atmospheric carbon dioxide levels or increasing global temperature – again, such a connection is impossible to make – but, according to climatologists, an increased propensity for winter storms is exactly what you would expect in a warming climate.

"There's no consistency at all," Michael Mann, the director of the Penn State Earth System Science Center, told LiveScience. "If anything, this is what the models project: that we see more of these very large snowfalls."

"Drier conditions near the ground combined with higher lightning flash rates per storm may end up intensifying wildfire damage," said study leader Tony Del Genio of NASA's Goddard Institute for Space Studies in New York.

"Climate is the statistic of weather over the long term," Ken Caldeira, a senior scientist at the Carnegie Institute for Science at Stanford University, told LiveScience. "No specific weather event can by itself confirm or disprove the body of scientific knowledge associated with climate change."

Regardless of individual views regarding global warming, extreme weather patterns over the last ten years are self-evident. We can easily predict that continued extremes in weather, like those mentioned above, will occur in the near future.

Hazard Identification

All of Morris County including the cities of Daingerfield, Lone Star, Naples, and Omaha are susceptible to several possible natural hazards. According to the FEMA National Risk Index Morris Counties the risk for all hazards is relatively low. 83% of U.S. Counties have a lower risk index and 78% of counties in Texas have a lower Risk Index. The Hazard Mitigation Team, with the assistance of the Ark-Tex Council of Governments Hazard Mitigation Planners, conducted a comprehensive Hazard Analysis beginning in February 2024. The hazard analysis will be reviewed annually and updated as needed during the Formal Review Process.

The Hazard Mitigation Team identified the following hazards that had the potential to cause personal or property damage in the county. There are no hazards that are unique to or vary from those affecting the overall planning area.

- Drought
- Extreme Heat
- Flood
- Hailstorm
- Lightning
- Thunderstorm Winds
- Tornadoes
- Wildfire
- Winter Storm

AREAS OF RISK

Hazards with distinct area of risk	Hazards without distinct area of risk
Flood	Drought
Wildfire	Extreme Heat
	Hailstorm
	Lightning
	Thunderstorm Winds
	Tornado
	Winter Storm

Hazards Listed in the Texas Hazard Mitigation Plan Not Included in the Morris County Plan

Hazard	Reason for Exclusion
Tropical storms	Morris County is over 300 miles from the Texas coast. Tropical storms are not an issue for Morris County. The planning area has no history of Tropical Storms hazards: therefore, no impacts are expected in the future.
Coastal erosion	Morris County is over 300 miles from the coast. Coastal erosion is not an issue for Morris County. The planning area has no history of Coastal erosion hazard: therefore, no impacts are expected in the future.
Expansive soils	There is no evidence that expansive soil is an issue for Morris County. The planning area has no history of expansive soils hazard; therefore, no impacts are expected in the future.
Land subsidence	There is no evidence that land subsidence is an issue for Morris County. The planning area has no history of Land Subsidence hazard; therefore, no impacts are expected in the future.
Dam/Levee Failure	There are no dam/levee issues identified in Morris County.
Earthquakes	There have been 0 earthquakes in Morris County since 1931.

The process for identifying hazards included looking at historical data to determine which hazards seemed to occur in Morris County. The sources used were newspaper articles, general local knowledge of jurisdictions' staff and residents, NOAA Satellite and Information Service, National Climatic Data Center reports, and advice from FEMA Hazard Mitigation Plan reviewers and the Texas Department of Emergency Management staff.

Hazards How and Why

Hazard	How Identified	Why Identified
Droughts	• History • Review of NCDC database • Public Input	• Costly to agri-business • Drought common to state and county
Extreme Heat	• History • Review of NCDC database • Public Input	• Costly to agri-business • Extreme heat common to state and county
Flood	• Review of Repetitive Flood Properties • NOAA • Newspaper accounts • Input from the public • Review of FIRMS	• The County contains many creeks, streams, and rivers. • The County has experienced flooding in the past. • Flooding is a frequent issue
Hailstorm	• Newspaper accounts • NOAA • Input from public	• Frequency • History • Public Concern
Lightning	• History • Review of NCDC database • Public input	• History • Public Concern
Thunderstorm Winds	• NOAA reports • Public Input • Newspaper Accounts	• Wind shears an ongoing problem. • Severe thunderstorms with accompanying high winds occur every year
Tornado	• Public Input • National Weather Service • History • NCDC Data Base	• Public Concern • History • Frequency
Wildfire	• Fire databases • Public Input • Texas Forestry • Newspaper Articles	• More wildfire occurrences than any other natural disaster • It can be common to drought and storms. • Rural areas most vulnerable
Winter Storm	• Past Disasters (2000 ice storm) costliest in recent memory • Public input • NOAA • National Weather Center	• Little equipment to fight ice and snow. • Heavy psychological toll on population • The population is not educated about dealing with outages etc.

Determining Risk

The following tables represent the factors used to calculate overall risk in Morris County or in the participating jurisdictions.

Severity x .45 + Probability x .30 + Warning Time x .15 + Duration x .10 = Risk

Potential Severity of Impact: (45% of Priority Risk Index)	
SUBSTANTIAL Index Value = 4	• Possible fatalities • Complete shutdown of facilities for 30 days or more • More than 50 percent of property destroyed or with major damage
MAJOR Index Value - 3	• Possible permanent disability from injuries and illnesses • Complete shutdown of critical facilities for at least 2 weeks • More than 25 percent of property destroyed or with major damage
MINOR Index Value = 2	• Injuries and/or illnesses do not result in permanent disability • Complete shutdown of critical facilities for more than 1 week • More than 10 percent of property destroyed or with major damage
LIMITED Index Value = 1	• Injuries and/or illnesses are treatable with first aid • Shutdown of critical facilities and services for 24 hours or less • Less than 10 percent of property destroyed or with major damage

Probability of Future Events: (30% of Priority Risk Index)	
Highly Likely Index Value = 4	Event probable in the next year 1/1 = 1.00 (Greater than .33)
Likely Index Value = 3	Event probable in next 3 years 1/3 = .33 (Greater than 0.20, but less than or equal to 0.33)
Occasional Index Value = 2	Event probable in the next 5 years 1/5 = 0.20 (Greater than 0.10, but less than or equal to 0.20)
Unlikely Index Value = 1	Event probable in the next 10 years 1/10 = 0.10 90.10 or less)

Formula for probability: events divided by the # of years on record i.e., 10 flood events in a 20-year period would give a 10/20 = .50 Value index of 4 (Highly Likely)

Warning Time: (15% of Priority Risk Index)	
Index Value = 4	Less than 6 hours
Index Value = 3	6 to 12 hours
Index Value = 2	12 to 24 hours
Index Value = 1	More than 24 hours

Duration: (10% of Priority Risk Index)	
Index Value = 4	More than a week
Index Value = 3	Less than a week
Index Value = 2	Less than 24 hours
Index Value = 1	Less than 6 hours

Priority Risk Index (PRI)

High Risk	PRI of 3.0 or greater
Medium Risk	PRI score 2.0 to 3.0
Low Risk	PRI score less than 2.0

PRI Value = (Impact x .45%) + (Probability x 30%) + (Warning Time x 15%) + (Duration x 10%)

Vulnerability is categorized as "Low" to "High." These terms are defined as follows:

Vulnerability	
LOW	Limited or no history of significant impacts to property, infrastructure, and/or public safety.
MODERATE	People and facilities located in areas that have low levels of historic occurrence of impacts from hazard and/or in areas where impact is possible but not probable.
HIGH	People and facilities are located in areas that have previously experienced impacts from hazards and/or in areas where impacts from hazards are possible and probable. Future damage to property and infrastructure is probable and/or a documented history of threat to public safety exists.

PROPRTY DAMAGE ASSESSMENT

The following damage assessment tables are used to estimate monetary loss due to natural hazards in Morris County.

UNINCORPORATED MORRIS COUNTY				
Structure Type	$ Value	75%	50%	25%
Residential	$112,523,665	$84,392,749	$56,261,833	$28,130,916
Commercial	$6,566,620	$4,924,965	$3,283,310	$1,641,655
Industrial	$46,492,770	$34,869,578	$23,246,385	$11,623,193
Exempt Property	$52,395,990	$39,296,993	$26,197,995	$13,098,998
Totals	$217,979,045	$163,484,284	$108,989,523	$54,494,761

DAINGERFIELD				
Structure Type	$ Value	75%	50%	25%
Residential	$73,137,020	$54,852,765	$36,568,510	$18,284,255
Commercial	$29,471,650	$22,103,738	$14,735,825	$7,367,913
Industrial	$2,894,010	$2,170,508	$1,447,005	$723,503
Exempt Property	$41,368,650	$31,026,488	$20,684,325	$10,342,163
Totals	$146,871,330	$110,153,498	$73,435,665	$36,717,833

LONE STAR				
Structure Type	$ Value	75%	50%	25%
Residential	$55,571,981	$40,178,986	$26,785,991	$13,392,995
Commercial	$10,504,420	$7,878,315	$5,252,210	$2,626,105
Industrial	$935,180	$701,385	$467,590	$233,795
Exempt Property	$6,045,750	$4,535,063	$3,023,375.0	$1,511,688
Totals	$71,057,331	$53,292,998	$35,528,666	$17,764,333

NAPLES				
Structure Type	$ Value	75%	50%	25%
Residential	$44,779,190	$33,584,393	$22,389,595	$11,194,798
Commercial	$10,792,880	$8,094,660	$5,396,440	$2,698,220
Industrial	$4,338,190	$3,253,643	$2,169,095	$1,084,548
Exempt Property	$9,162,090	$6,871,568	$4,581,045	$2,290,523
Totals	$69,072,350	$51,804,263	$34,536,175	$17,268,088

OMAHA				
Structure Type	$ Value	75%	50%	25%
Residential	$32,590,410	$24,442,808	$16,295,205	$8,147,603
Commercial	$6,884,660	$5,163,495	$3,442,330	$1,721,165
Industrial	$0	$0	$0	$0
Exempt Property	$4,482,640	$3,361,980	$2,241,320.0	$1,120,660
Totals	$43,957,710	$32,968,283	$21,978,855	$10,989,428

Hazard Assessment Elements

The Hazard Profiles, found in the following sections, were prepared for each identified natural hazard, and assessed the hazard per the following elements.

1. **Description:** Identification and description of hazards likely to affect the multi-jurisdictional area along with the sources used to identify these hazards.
2. **Previous Occurrences:** Previous Occurrences describe the hazard in terms of what, when, where past events have occurred and the extent of damage.
3. **Location:** The location or geographic area affected by each natural hazard along with a map of the area affected.
4. **Probability:** Probability of Future Events described how likely a hazard is to occur within the county and jurisdictions.
5. **Impact:** Impact describes the hazard's potential severity that the hazard event is capable of inflicting upon the county and jurisdictions.
6. **Vulnerability:** Vulnerability describes how exposed or susceptible to damage the county is in terms of why and where the hazard can occur within the county and/or the other jurisdictions.
7. **Extent:** Extent describes the expected range or intensity of each hazard.
8. **Summary:** This section summarizes the vulnerability of the entire county and the possible impacts of the natural disaster.

HAZARD ANALYSIS

Simply put, hazard analysis is an evaluation of the types of hazards (emergencies) that have occurred in the past or could occur in the future, identification of the population at risk, and an evaluation of the hazards versus the population to determine overall vulnerability.

The following steps were taken:

- Identification of the Hazards. Determination of the natural hazards that could affect the county.
- Profiling the Hazard Events. Determination of how bad a hazard can get.
- Inventorying Assets. Determination of where and/or to what extent the hazards can affect the assets of the county/city.
- Estimating Losses. Determining how the hazards will affect the county/city.

SECTION III: Hazard Descriptions

DROUGHT

Description

A drought is a period of abnormally dry weather that persists long enough to produce a serious hydrologic imbalance (for example crop damage, water supply shortage, etc.) The severity of the drought depends upon the degree of moisture deficiency, the duration, and the size of the affected area.

There are four different ways that drought can be defined:

- **Meteorological** – a measure of departure of precipitation from normal. Due to climatic differences, what is considered a drought in one location may not be a drought in another location.
- **Agricultural** – refers to a situation when the amount of moisture in the soil no longer meets the needs of a particular crop.
- **Hydrological** – occurs when surface and subsurface water supplies are below normal.
- **Socioeconomic** – refers to the situation that occurs when physical water begins to affect people.

Drought is a period when precipitation falls below normal levels.

Defining the beginning or the end of a drought can be difficult. Some droughts may be short in duration, but more severe in their intensity. Low humidity and high temperatures usually accompany droughts, which means that any additional moisture evaporates quickly before it has the chance to improve conditions.

Droughts not only led to water shortages, but they produce widespread crop failure and environmental stress. The extreme heat associated with some droughts has led to heat related deaths, job losses among agricultural workers, and significant acres and property destroyed by wildfires.

Climate change has further altered the natural pattern of droughts, making them more frequent, longer, and more severe. Since 2000, the western United States is experiencing some of the driest conditions on record. The southwestern U.S. is going through an unprecedented period of extreme drought. This will have lasting impacts on the environment and those who rely on it. (ww.usgs.gov)

Drought ends when it rains. When enough precipitation has fallen, a region's soil moisture profile will improve enough to sustain plants and crops. Once recovery continues to the extent that the water levels of lakes, rivers, wells, and reservoirs have returned to normal, then a drought is considered over.

Types of Drought Impacts

Drought impacts are often grouped as economic, environmental, and social. The economic impact of droughts in East Texas includes:

- Farmers may lose money if a drought destroys their crops or stunts the crops' growth, causing lower yields and poor crop quality. If a farmer's water supply is too low, the farmer may have to spend more money on irrigation or to find new water sources, like wells.

- Ranchers may lose livestock, or they might have to spend more money on feed and water for their animals.
- People who work in the timber industry may be affected when trees, especially young trees, die, or wildfire destroys stands of timber.
- Businesses that manufacture and sell recreational equipment, like boats and fishing equipment, may not be able to sell some of their goods because drought has dried up lakes and other water sources.
- Businesses that depend on agricultural productions, like tractor manufacturers and companies that process food, may lose business when drought damages crops or livestock.
- Power companies that normally rely on hydroelectric power (electricity that is created from the energy of running water) may have to spend more money on other fuel sources if drought dries up too much of the water supply. The power companies' customers would also have to pay more.
- Water companies may have to spend money on new or additional water supplies.
- Barges and ships may have difficulty navigating streams, rivers, and canals because of low water levels, which would also affect businesses that depend on water transportation for receiving or sending goods and materials.
- People may have to pay more for food.

Drought also causes environmental losses because of forest fires; soil erosion; damage to plants, animals, and their habitat; and air and water quality decline. Sometimes the damage is only temporary, and conditions return to normal when the drought is over. But sometimes drought's impact on the environment can last a long time, or may even become permanent if, for example, an endangered species was lost because of low stream flows. Examples of environmental impacts include:

- Losses or destruction of fish and wildlife habitat
- Lack of food and drinking water for wild animals
- Increase in disease in wild animals because of reduced food and water supplies
- Migration of wild animals, leading to loss of wildlife in some (drought-stricken) areas and too much wildlife in areas not affected by drought
- Increased stress on endangered species
- Lower water levels in reservoirs, lakes, and ponds
- Loss of wetlands
- More fires
- Wind and water erosion of soils, reduced soil quality

Social impacts of drought include public safety, health, conflicts that arise between people when there is not enough water to go around, and changes in lifestyle. Many of the impacts that we consider economic and environmental also have social impacts. Examples of social impact include:

- Mental and physical stress on people (for example, people may experience anxiety or depression about economic losses caused by drought)
- Health problems related to low water flows (for example, low water supplies and water pressure make fire-fighting more difficult)
- Loss of human life (from heat stress and suicides for example)
- Threat to public safety from an increased number of forest and range fires
- Reduced incomes
- Population migration (from rural to urban areas)
- Fewer recreational activities

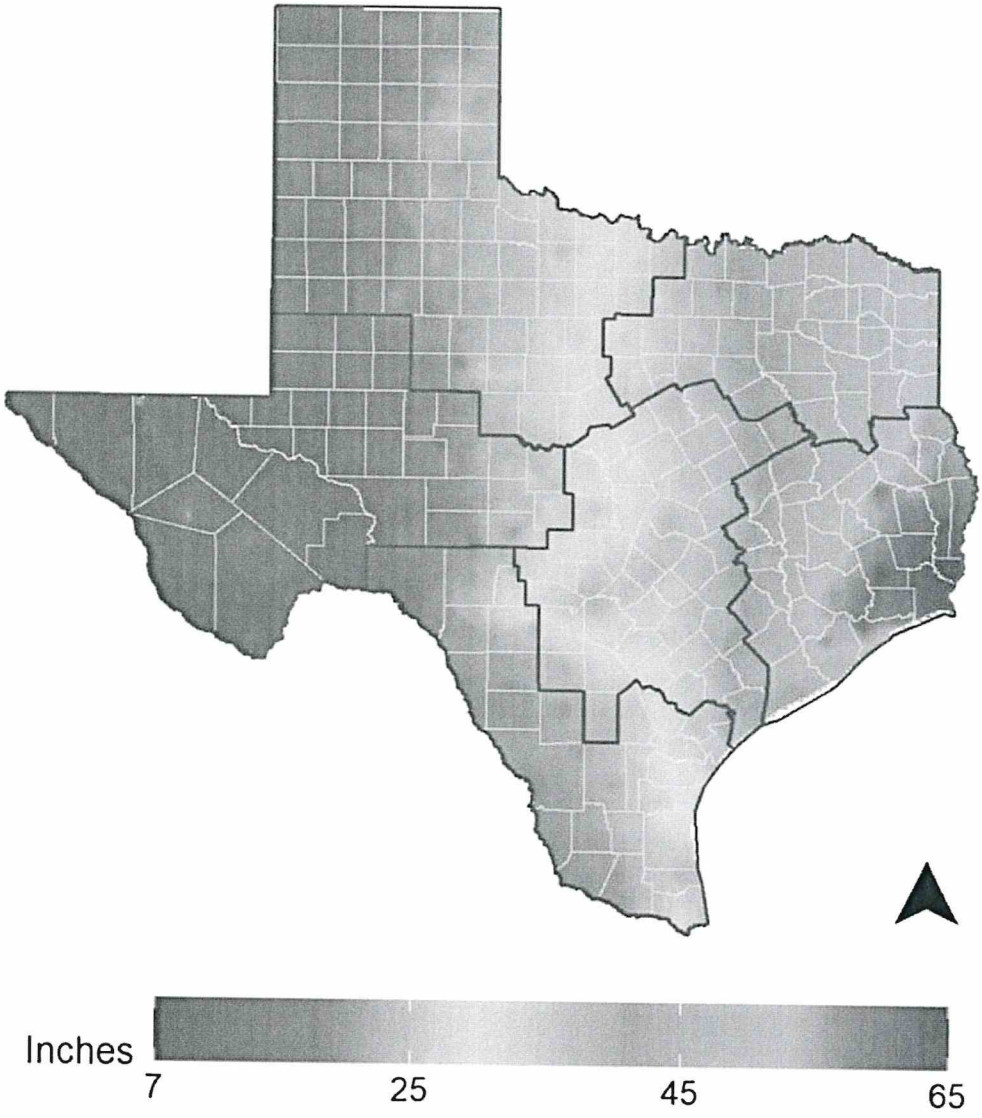
All these impacts were considered in planning for and responding to drought conditions.

According to the National Climate Data Center

The wide variety of disciplines affected by drought, its diverse geographical and temporal distribution, and the many scales drought operates on make it difficult to develop both a definition to describe drought and an index to measure it. Many quantitative measures of drought have been developed in the United States, depending on the discipline affected, the region being considered, and the application. Several indices developed by Wayne Palmer, as well as the Standardized Precipitation Index, are useful for describing the many scales of drought.

Common to all types of droughts is the fact that they originate from a deficiency of precipitation resulting from an unusual weather pattern. If the weather pattern lasts a brief time (say, a few weeks or a couple of months), the drought is considered *short-term*. But if the weather or atmospheric circulation pattern becomes entrenched and the precipitation deficits last for several months to several years, the drought is a *long-term* drought. It is possible for a region to experience a long-term circulation pattern that produces drought, and to have short-term changes in this long-term pattern that result in short-term wet spells. Likewise, it is possible for a long-term wet circulation pattern to be interrupted by short-term weather spells that result in short-term drought.

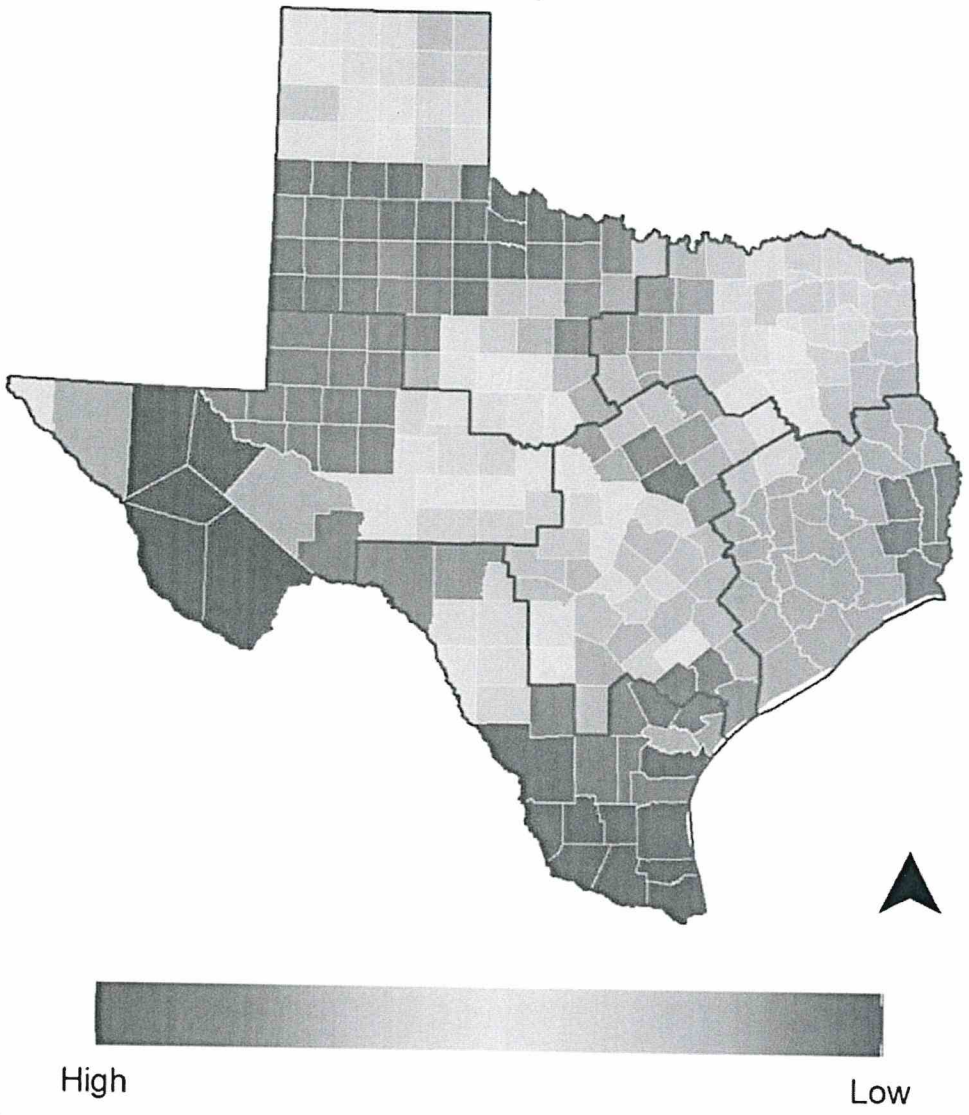
Drought: Average Annual Precipitation



Source: PRISM Climate Group, Oregon State University
https://prism.oregonstate.edu/normals/

Source: 2023 SHMP

Drought: Historic Events by County



Source: National Center for Environmental Information Storm Events Database
https://ncdc.noaa.gov/stormevents/

Source: 2023 SHMP

PREVIOUS OCCURANCES OF DROUGHT IN MORRIS COUNTY

Data from National Oceanic and Atmospheric Administration (NOAA)

In the last ten years 26 months of drought were recorded by the NOAA Storm Events Database for Morris Count and participating jurisdictions.

Major Declarations for Planning Area: There were no major declarations for Drought.

Morris County Drought Risk					
COMMUNITY	**POTENTIAL IMPACT 45%**	**PROBABLITY 30%**	**Warning 15%**	**Duration 10%**	**RISK**
Morris County Unincorporated	Substantial PRI=4	Highly Likely PRI=4	> than 24 hours PRI=1	>Week PRI=4	High 3.55
Daingerfield	Substantial PRI=4	Highly Likely PRI=4	> than 24 hours PRI=1	>Week PRI=4	High 3.55
Lone Star	Substantial PRI=4	Highly Likely PRI=4	> than 24 hours PRI=1	>Week PRI=4	High 3.55
Naples	Substantial PRI=4	Highly Likely PRI=4	> than 24 hours PRI=1	>Week PRI=4	High 3.55
Omaha	Substantial PRI=4	Highly Likely PRI=4	> than 24 hours PRI=1	>Week PRI=4	High 3.55

MORRIS COUNTY CRITICAL FACILITIES

Facility	Morris Co	Daingerfield	Lone Star	Naples	Omaha
City Hall	0	1	1	1	1
Volunteer Fire Department	2	2	1	1	1
Civic Center	0	0	0	0	0
Govt. Facility	1	0	0	0	1
Wastewater plant	0	1	1	0	0
Corrections Facility	1	0	0	0	0
Hospital	0	0	0	0	0
Maintenance Barn	3	0	0	0	0
Post Office	0	1	1	1	1
Water Tower	0	1	1	1	1
Police Station	0	1	1	1	1
Sheriff Office	1	0	0	0	0
EMS	1	1	1	1	1
Public School Districts	0	1	0	0	1
Water Treatment Plant	0	1	0	0	0
County Seat	0	1	0	0	0

All critical facilities are vulnerable to the effects of drought.

Location: Historically, drought has affected Morris County and the participating jurisdictions of Daingerfield, Lone Star, Naples, and Omaha. The agricultural areas, including the rural parts of the County, would be affected more than the urban areas.

Probability: Droughts will continue to occur in Morris County and participating jurisdictions when the conditions are right. It is a normal, recurrent feature of climate. A drought will affect Morris County and its participating jurisdictions. Historically, a drought can last from a few days to several months. According to FEMA National Risk Index the risk of Drought in Morris County is relatively moderate.

Rising temperatures caused by climate change are making already dry regions drier and wet regions wetter. In dry regions, this means that when temperatures rise, water evaporates more quickly and thus increases the risk of drought or prolongs periods of drought. (World Health Organization)

Impact: Drought is determined by using the Palmer Drought Index. It is based on precipitation and temperature data for the area. The scale ranges from +4.0 and above, which is extremely wet to -4.00 or less, which is considered an extreme drought. The scale is most accurate when used to determine drought over a period of months. Droughts are regional and statewide. All of Morris County and the participating jurisdictions of Daingerfield, Lone Star, Naples, and Omaha would be affected.

The impact of a drought on the jurisdictions of Morris County includes economic problems due to high food prices, the water from municipal works can drop in quality causing illness, lawns and other plants are impacted. Public safety can be threatened by the increased likelihood of wildfires. The effects of climate change, changes in population and changes in land development are not expected to affect the impact of a hazard event.

Vulnerability: The region is vulnerable when there is a deficiency of precipitation over an extended period. Crops may be damaged or destroyed, and wildlife (plant and animal) may be threatened. Low-income households could be more affected by drought impacts.

Extent: Drought conditions for Morris County have varied over the past 10 years ranging from Abnormally Dry (DO) to Extreme Drought (D3) according to drought.gov.

Summary: Drought is seen as an issue for Morris County, Daingerfield, Lone star, Naples, and Omaha, however the county has never experienced shortages of potable water. Water rationing has never been necessary in any of the jurisdictions, but this remains a real possibility due to climate change. New precautions should be considered to mitigate changing weather patterns.

EXTREME HEAT

Description

Extreme heat is a period of high heat and humidity with temperatures above 90 degrees for at least two to three days. In extreme heat your body works extra hard to maintain a normal temperature which can lead to death. Extreme heat is responsible for the highest number of annual deaths among all weather-related hazards. (ready.gov/heat)

Heat kills by taxing the human body beyond its abilities. More than 300 Texas died from heat in 2023. (texastribune.org) No one can know how many more deaths are caused by heat wave weather-how many diseased or aging hearts surrender that under better conditions would have continued functioning. The stagnant atmospheric conditions of the heat wave trap pollutants in urban areas and add the stresses of severe pollution to the already dangerous stresses of hot weather, creating a health problem of undiscovered dimensions.

Based on the latest research findings, the National Weather Service has devised the Heat Index (HI). The HI, given in degrees F, is an accurate measure of how hot it really feels when relative humidity (RH) is added to the actual air temperature. Exposure to full sunshine can increase HI values by up to 15 degrees Fahrenheit. Also, strong winds, particularly with very hot, dry air, can be extremely hazardous.

NOAA's National Weather Service Heat Index

Temperature (°F)

Relative Humidity (%)	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution Extreme Caution Danger Extreme Danger

To find the Heat Index temperature, look at the Heat Index chart above. For example, if the air temperature is 96 degrees F and the relative humidity is 65%, the heat index – how hot it feels – is 121 degrees F.

Morris County Extreme Heat Past Occurrences

The table below from the NOAA Storm Event Database shows in the past 10 years there have been 16 days of extreme heat in Morris County.

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
MORRIS (ZONE)	MORRIS (ZONE)	TX	07/12/2020	18:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	08/29/2020	10:45	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	07/09/2022	11:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	07/19/2022	11:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	06/24/2023	10:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	07/13/2023	11:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	07/18/2023	03:17	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	07/31/2023	10:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	08/01/2023	09:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	08/09/2023	10:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	08/18/2023	10:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	09/06/2023	09:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	06/28/2024	10:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	07/01/2024	00:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	08/02/2024	00:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
MORRIS (ZONE)	MORRIS (ZONE)	TX	08/13/2024	10:00	CST-6	Excessive Heat		0	0	0.00K	0.00K

Major Declarations for Planning Area: There were no major declarations for Extreme Heat.

MORRIS COUNTY EXTREME HEAT RISK					
COMMUNITY	**POTENTIAL IMPACT 45%**	**PROBABLITY 30%**	**Warning 15%**	**Duration 10%**	**RISK**
Morris Unincorporated	Limited PRI 1	Highly Likely PRI 4	> 24 hrs. PRI 1	< a week PRI 3	Medium 2.1
Daingerfield	Limited PRI 1	Highly Likely PRI 4	> 24 hrs. PRI 1	< a week PRI 3	Medium 2.1
Lone Star	Limited PRI 1	Highly Likely PRI 4	> 24 hrs. PRI 1	< a week PRI 3	Medium 2.1
Naples	Limited PRI 1	Highly Likely PRI 4	> 24 hrs. PRI 1	< a week PRI 3	Medium 2.1
Omaha	Limited PRI 1	Highly Likely PRI 4	> 24 hrs. PRI 1	< a week PRI 3	Medium 2.1

MORRIS COUNTY CRITICAL FACILITIES

Facility	Morris Co	Daingerfield	Lone Star	Naples	Omaha
City Hall	0	1	1	1	1
Volunteer Fire Department	2	2	1	1	1
Civic Center	0	0	0	0	0
Govt. Facility	1	0	0	0	1
Wastewater plant	0	1	1	0	0
Corrections Facility	1	0	0	0	0
Hospital	0	0	0	0	0
Maintenance Barn	3	0	0	0	0
Post Office	0	1	1	1	1
Water Tower	0	1	1	1	1
Police Station	0	1	1	1	1
Sheriff Office	1	0	0	0	0
EMS	1	1	1	1	1
Public School Districts	0	1	0	0	1
Water Treatment Plant	0	1	0	0	0
County Seat	0	1	0	0	0

All critical Facilities are vulnerable to the effects of extreme heat.

Location: Morris County would be affected by extreme heat. Citizens of Daingerfield, Lone Star, Naples, and Omaha will suffer from the impact of extreme heat.

Probability: It is highly likely that extreme heat waves will continue to occur in the region when the conditions are right. It is a normal, recurrent feature of climate. Morris County typically three or four heat occurrences every summer. It is highly likely that Morris County and participating jurisdictions will experience extreme heat.

Climate change effects on extreme heat include an increase in the average number of extremely hot days and could cause the heat wave season to be longer. More extreme heat will likely lead to more heat-related illnesses. (epa.gov)

Impact: The full range of the heat index on the preceding page is applicable for Morris Count and participating jurisdictions. There is no specific history regarding property or crop damage due to excessive heat available. For a better idea of the possible property losses se Damage Assessment tables on page 23 for examples of loss in dollars. Extreme heat causes heat stroke; time lost on the job and psychological stress. Further economic impact occurs when stress is placed on automobile cooling systems, diesel trucks and railroad locomotives. This leads to an increase in mechanical failures. Train rails develop sun kinks and distort. Refrigerated goods experience a significantly greater rate of spoilage due to extreme heat. Additional impact will be felt as food prices rise due to crop loss. The effects of climate change, changes in population and changes in land development are not expected to affect the impact of a hazard event.

Vulnerability: The region is vulnerable when there is a deficiency of precipitation over an extended period with high temperatures. The extent of damage or injury increases with the temperature and relative humidity levels. All of Morris County and the participating jurisdictions are vulnerable. Elderly persons, small children, disabled people, those on certain medications or drugs, and persons with weight and alcohol problems are particularly susceptible to heat reactions, especially during heat waves in areas where a moderate climate usually prevails. Crops and livestock are stressed during extended periods of extreme heat.

Extent: The Heat Index will be mitigated to any combination of temperature and humidity that ranges from 100 - 114 degrees Fahrenheit.

Summary: Hot temperatures are part of the East Texas landscape. During the months of June, July, and August we can expect temperatures of over 100 degrees. The citizens who live in Morris County and the participating jurisdictions of Daingerfield, Lone Star, Naples, and Omaha are aware of extreme heat's lethal potential and take precautions to prevent overheating and heat related strokes. Mitigation actions should take place to prepare for rising temperatures.

FLOOD

Description
Floods are the most common natural disaster in the United States. They have brought destruction to every state and nearly every county, and in many areas, they are getting worse. As global warming continues to exacerbate sea level rise and extreme weather, our nation's floodplains are expected to grow by approximately 45 percent by century's end. (www.nrdc.org)

FLOOD TYPES
Flash Flood: A flash flood generally results from torrential rain on a relatively small drainage area. Runoff from these rainfalls results in high floodwater that can cause destruction of homes, buildings, bridges, and roads. Flash floods are a threat to public safety in areas where the terrain is steep and surface runoff rates are high.

Riverine Floods: Riverine floods are caused by precipitation over large areas and differ from flash floods in their extent and duration. Floods in large river systems may continue for periods ranging from a few hours to many days.

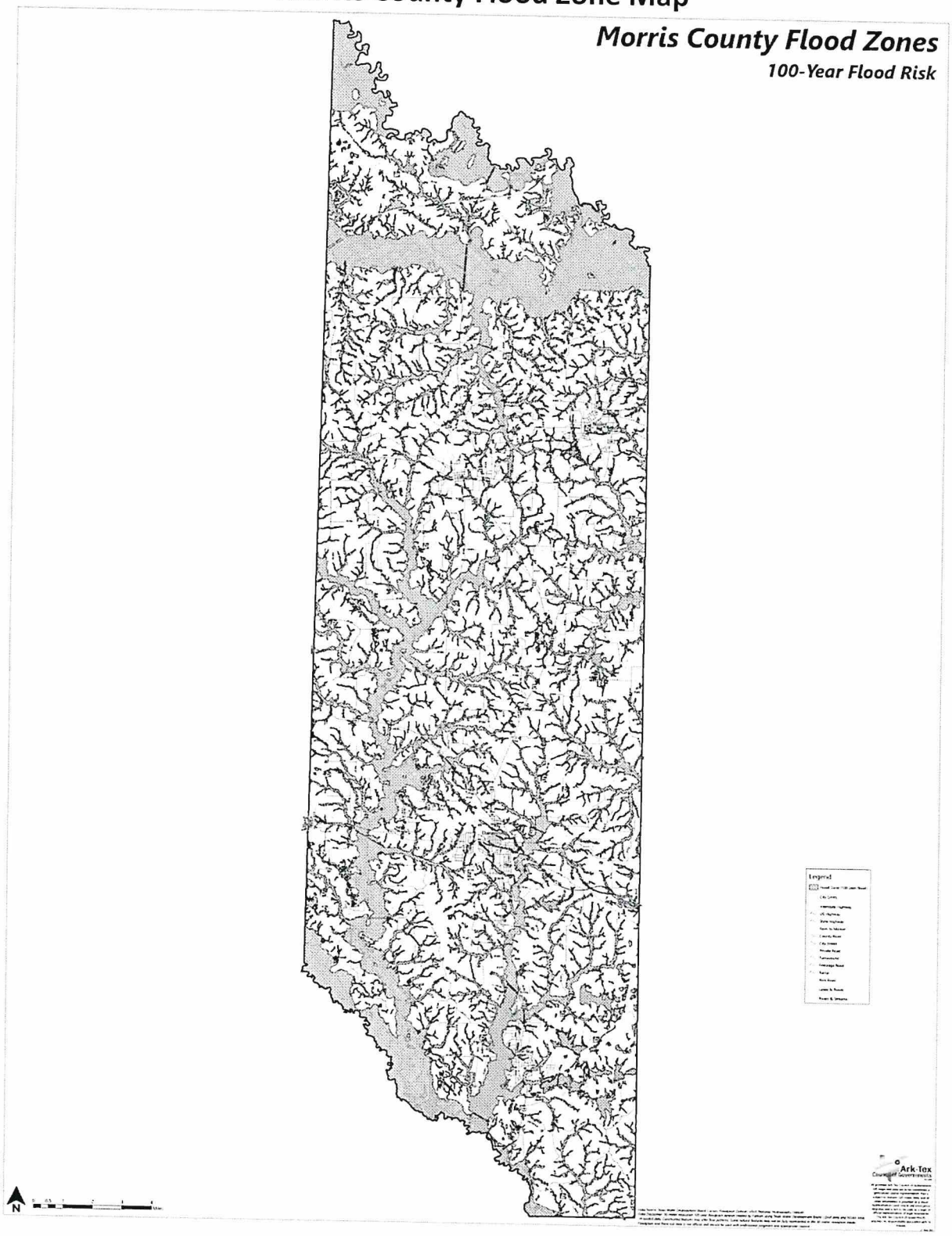
Floodplains: The lowland and flat areas adjoining inland and coastal waters include, at a minimum, that area subject to a one percent or greater chance of flooding in any given year.

100-Year Flood: There is one chance in 100, or a 1% chance of a flood of such magnitude or greater occurring in any given year. There is no guarantee that a similar flood will not occur in the next year, or in the next month.

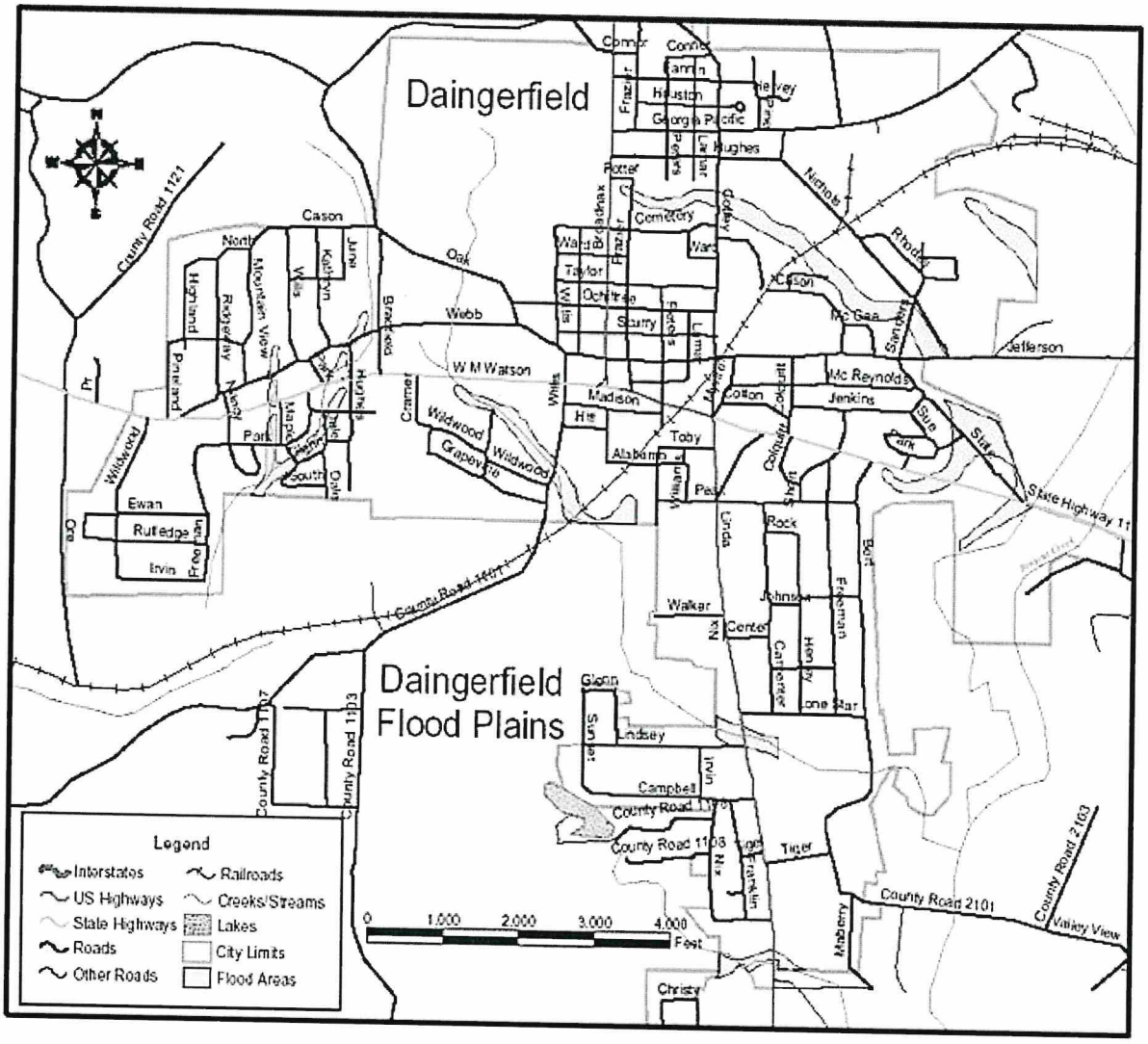
Floodway: That portion of the floodplain, which is effective in carrying flow, within which this carrying capacity must be preserved and where water depths and velocities are the greatest. It is the area along the channel that provides for the discharge of the base flood so the cumulative increase in water surface elevation is no more than one foot.

The following are floodplain maps for Morris County, Daingerfield, Lone Star, Naples, and Omaha.

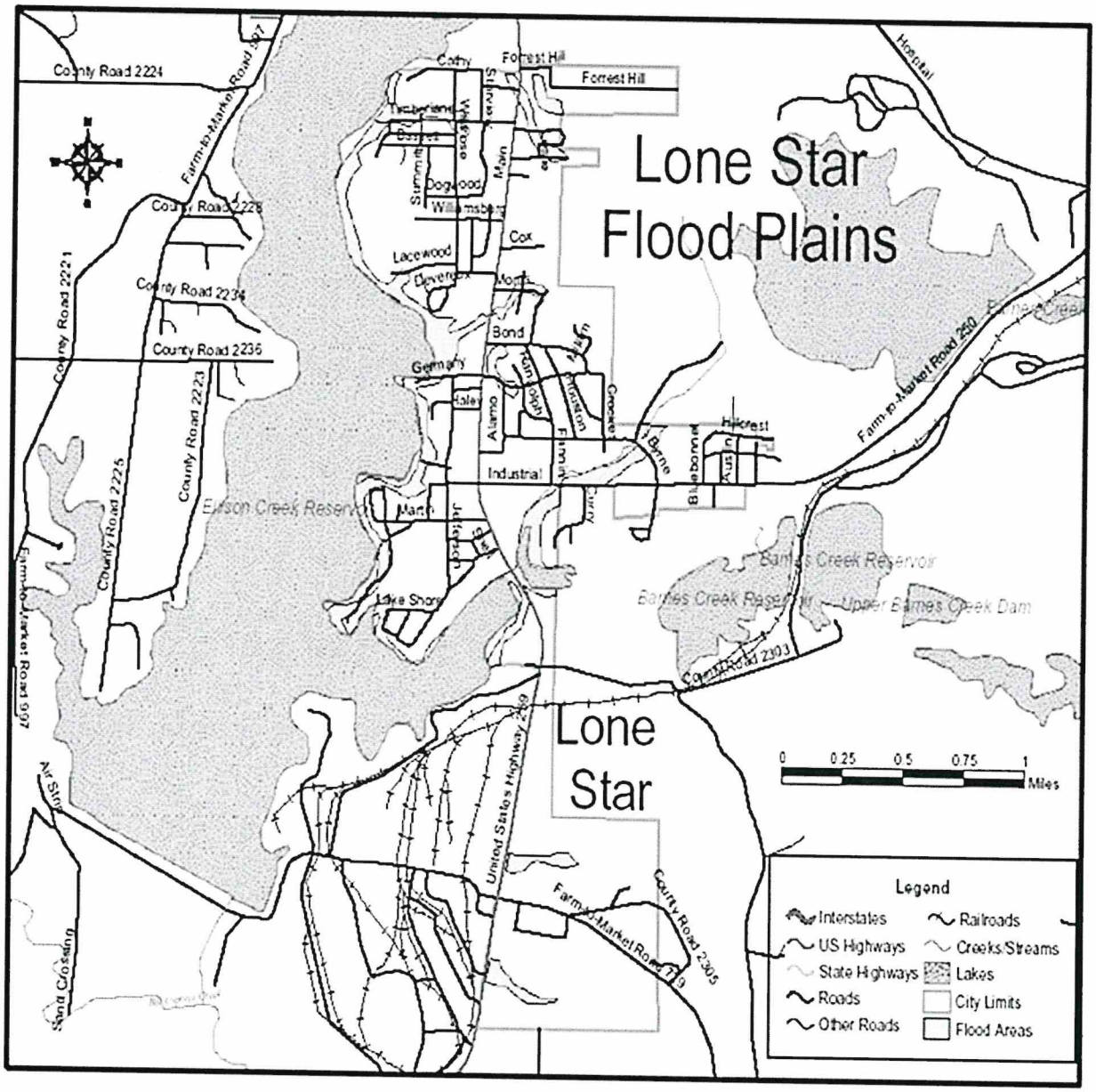
Morris County Flood Zone Map



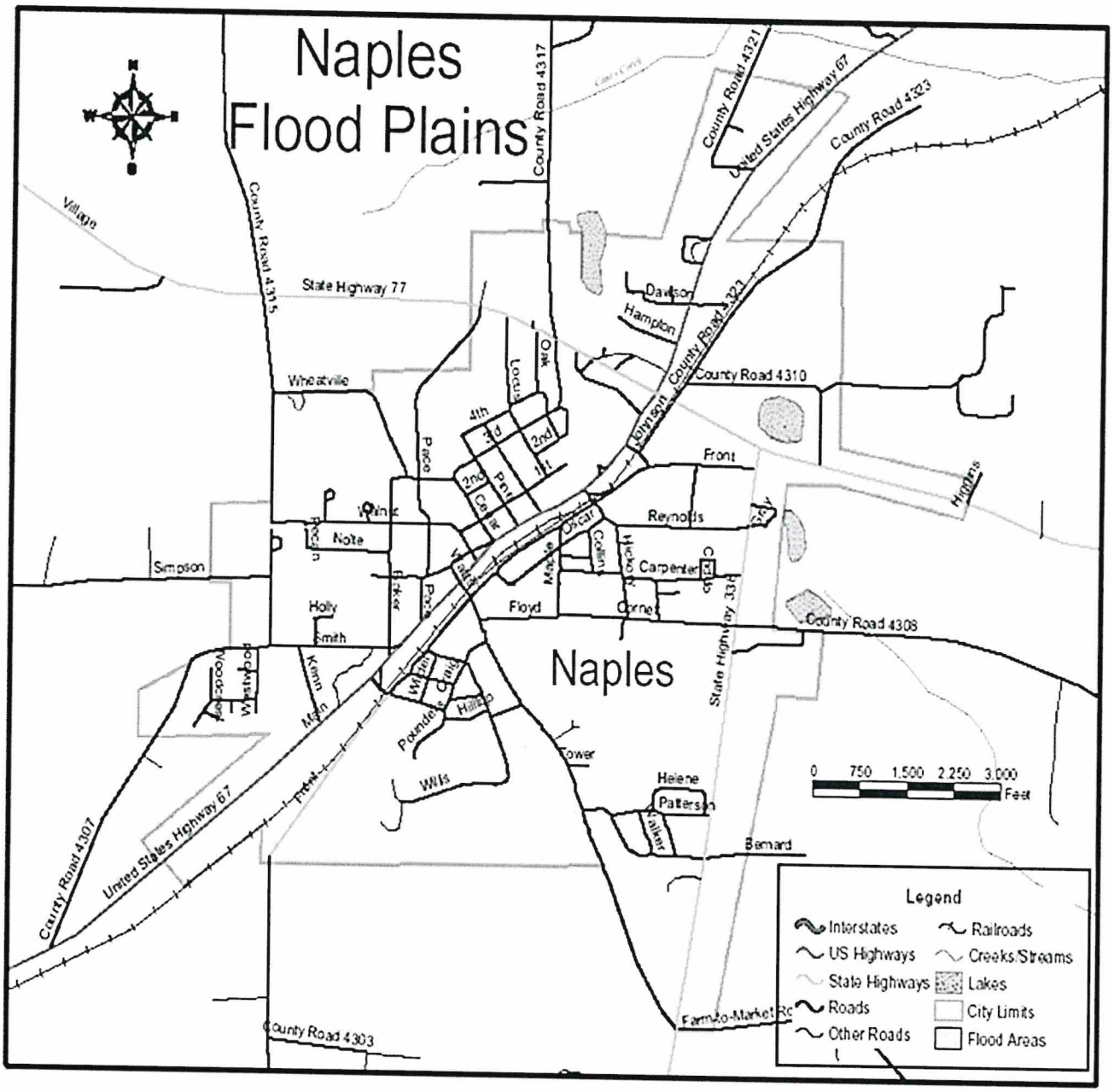
Daingerfield Floodplains



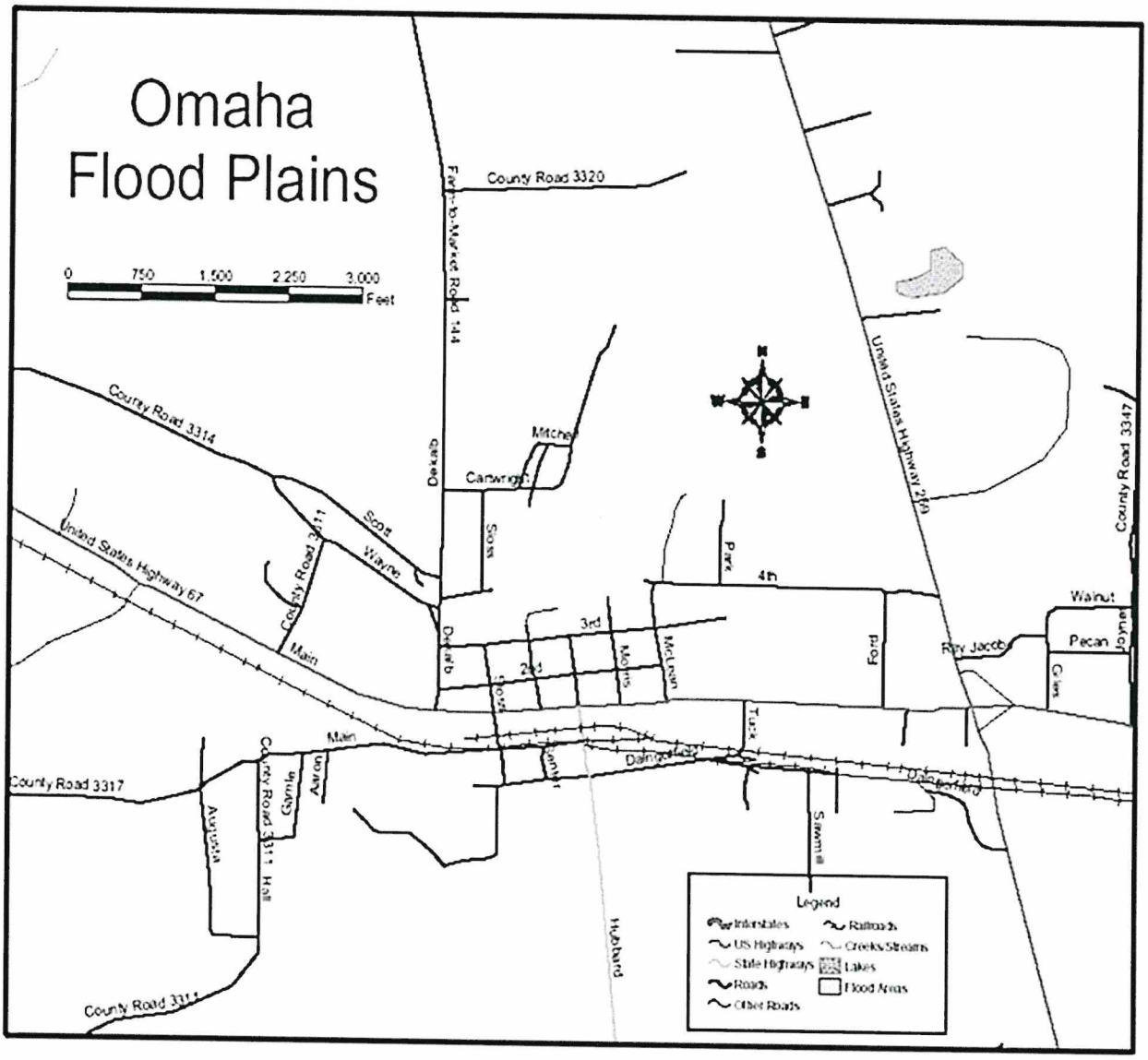
Lone Star Floodplains



Naples Floodplains



Omaha Floodplains



Flood Plain Map Narrative

Morris County and the jurisdictions of Daingerfield, Lone star, Naples, and Omaha participate in the NFIP program. They have flood plain maps and a designated representative to monitor new construction to prevent anyone from developing in low areas. Priority was given to each action by the HMPT. Each NFIP action was weighed regarding the ultimate impact on buildings and infrastructure. These participating jurisdictions are committed to taking positive steps to remain in compliance with floodplain management requirements such as widening ditches, revising building codes and requiring building permits to bring damaged buildings into compliance. These jurisdictions will use NFIP community workshops to provide information and incentives for property owners to acquire flood insurance and taking action to minimize the effects of flooding on people, property, also, through measures including flood warning, emergency response, and evacuation planning.

A repetitive Loss Structure is an NFIP-insured structure that has had at least 2 paid flood losses of more than $1,000 each in any 10-year period since 1978. Unincorporated Morris County, Daingerfield, Lone Star, Naples, and Omaha have no repetitive flood properties on record.

Repetitive Loss Structure

Source: FEMA NFIP Repetitive Loss Overview (February 2024)

Morris County
Repetitive Loss Structures: 0
Structure Type: N/A
Total Losses: N/A
Total Paid: N/A

Unincorporated Morris County

Unincorporated Morris County is approximately 158,680 acres. The total taxable value of all property in the Unincorporated Morris County is approximately $217,979,045. There is no record of repetitive flood loss. Currently, Morris County does not have processes for making substantial improvement/substantial damage (SI/SD) determinations to bring buildings into compliance with the floodplain management requirements. A mitigation action has been added to this plan to develop a flood damage prevention ordinance.

Daingerfield

The city of Daingerfield is an incorporated city with approximately 1,574 acres. The total taxable value of all property in the City of Daingerfield is $146,871,330. There is no record of repetitive flood loss. Currently, Daingerfield does not have processes for making substantial improvement/substantial damage (SI/SD) determinations to bring buildings into compliance with the floodplain management requirements. A mitigation action has been added to this plan to develop a flood damage prevention ordinance.

Lone Star

The city of Lone Star is an incorporated city with approximately 1,280 acres. The total taxable value of all property in the City of Lone Star is $171,057,331. There is no record of repetitive flood loss. Currently, Lone Star does not have processes for making substantial improvement/substantial damage (SI/SD) determinations to bring buildings into compliance with the floodplain management requirements. A mitigation action has been added to this plan to develop a flood damage prevention ordinance.

Naples
The city of Naples is an incorporated city with approximately 1,536 acres. The total taxable value of all property in the City of Naples is $69,072,350. There is no record of repetitive flood loss. Currently, Naples does not have processes for making substantial improvement/substantial damage (SI/SD) determinations to bring buildings into compliance with the floodplain management requirements. A mitigation action has been added to this plan to develop a flood damage prevention ordinance.

Omaha
The city of Omaha is an incorporated city with approximately 930 acres. The total taxable value of all properties in the City of Daingerfield is $43,957,710. There is no record of repetitive flood loss. Currently, Naples does not have processes for making substantial improvement/substantial damage (SI/SD) determinations to bring buildings into compliance with the floodplain management requirements. A mitigation action has been added to this plan to develop a flood damage prevention ordinance.

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 damage to insurable property, strengthen and support the insurance aspects of the NFIP, and encourage a comprehensive approach to floodplain management. CRS has been developed to provide incentives in the form of 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.

Unincorporated Morris County, Daingerfield, Lone Star, Naples, and Omaha are eligible to participate in the CRS program but are not currently doing so but will analyze the benefits of joining.

PAST OCCURRENCES OF FLOODING IN MORRIS COUNTY

(Data from National Climatic Data Center)

Ten Year Profile

There was no listing of flooding and one listing of flash flooding in Morris County in the last ten years. This was October 24, 2023, in the City of Omaha there was a flooded roadway at the intersection of Spur 284 and FM 114.

Major Declarations for Planning Area: Morris County was a designated area for Public Assistance in the FEMA 4781-DR, Texas Disaster Declaration, May 2024, Texas Severe Winter Storms, Tornadoes, Straight line Winds, and Flooding.

Morris County Flood Risk					
Jurisdiction	**Impact (45%)**	**Probability (30%)**	**Warning Time (15%)**	**Duration (10%)**	**PRI Score**
Morris County	Limited PRI=1	Highly Likely PRI=4	6-12 hrs. PRI= 2	< 24 hrs. PRI=2	Medium 2.15
Daingerfield	Limited PRI=1	Highly Likely PRI=4	6-12 hrs. PRI= 2	< 24 hrs. PRI=2	Medium 2.15
Lone Star	Limited PRI=1	Highly Likely PRI = 4	6-12 hrs. PRI= 2	< 24 hrs. PRI = 2	Medium 2.15
Naples	Limited PRI = 1	Highly Likely PRI=4	6-12 hrs. PRI= 2	< 24 hrs. PRI=2	Medium 2.15
Omaha	Limited PRI = 1	Highly Likely PRI=4	6-12 hrs. PRI= 2	< 24 hrs. PRI=2	Medium 2.15

MORRIS COUNTY CRITICAL FACILITIES

Facility	Morris Co	Daingerfield	Lone Star	Naples	Omaha
City Hall	0	1	1	1	1
Volunteer Fire Department	2	2	1	1	1
Civic Center	0	0	0	0	0
Govt. Facility	1	0	0	0	1
Wastewater plant	0	1	1	0	0
Corrections Facility	1	0	0	0	0
Hospital	0	0	0	0	0
Maintenance Barn	3	0	0	0	0
Post Office	0	1	1	1	1
Water Tower	0	1	1	1	1
Police Station	0	1	1	1	1
Sheriff Office	1	0	0	0	0
EMS	1	1	1	1	1
Public School Districts	0	1	0	0	1
Water Treatment Plant	0	1	0	0	0
County Seat	0	1	0	0	0

All critical Facilities are vulnerable to the effects of flooding.

Location: Historically, the rural areas of the county have experienced the most damage from flooding. If future trends occur as they have in the past, the county will continue to have floods. Countywide, the Highways and County roads will continue to flood. Morris County and all the participating jurisdictions may have flooding during heavy and prolonged rains.

Probability: Flash floods are possible at any time during the storm season. These types of floods occur often during that period. According to the NOAA weather service in Shreveport, LA, a flash flood is defined as flooding that occurs within 6 hours after or during rain. The FEMA National Risk Index gives Morris County a relatively low risk for Riverine Flooding.

Climate change is affecting our water cycle, which refers to the way water moves about the planet. Wet areas are getting wetter and dry areas are getting drier. Therefore, the rain is more in the form of intense downpours, leading to greater risk for floods. (climatecouncil.org)

Estimated Property Damage from Flood at 75%

Morris County Unincorporated	$163,484,283
Daingerfield	$110,153,497
Lone Star	$53,292,998
Naples	$51,804,262
Omaha	$32,968,282

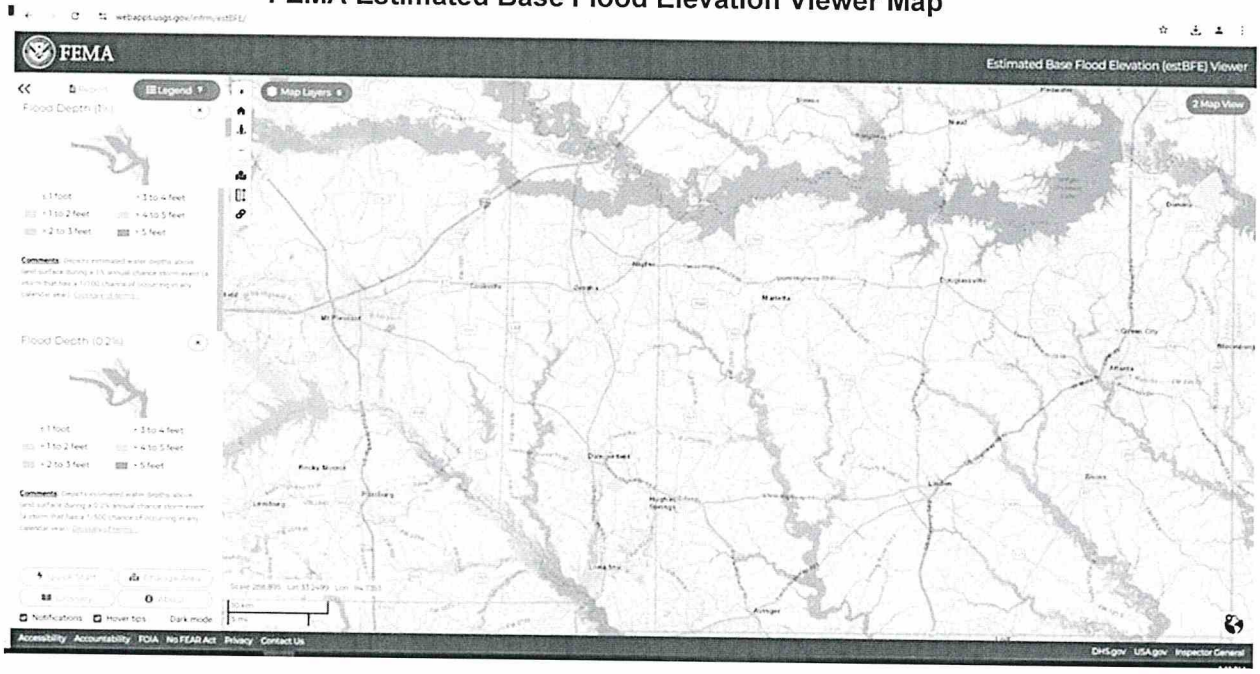
Impact: The magnitude of observed or forecast flooding is conveyed using flood severity categories. These flood severity categories include minor flooding, moderate flooding, and major flooding. Each category has a definition based on property damage and public threat. Minor damage is defined as minimal or no property damage, but possibly some public threat or inconvenience. Moderate damage is defined as some inundation of structures and roads near streams. Some evacuations of people and/or transfer of property to higher elevations are necessary. Major damage is defined as extensive inundation of structures and roads with significant evacuations of people and/or transfer of property to higher elevations. The impact of floods varies locally. The possible damage to the cities of Daingerfield, Lone Star, Naples, and Omaha are addressed in the tables found on page 23. Rising flood waters can destroy structures and endanger lives. Many rural roads in Morris County are subject to flooding in heavy rain. Rainfall from 2 to 4 inches in a given hour can cause flash flooding. Flash flooding can be magnified when the ground is already saturated with moisture. Based on historical evidence it is possible for limited flooding to take place within the city limits of all Morris County jurisdictions. The effects of climate change, changes in population and changes in land development are not expected to affect the impact of a hazard event.

Vulnerability: The probability of a flash flood and the inability to accommodate the existing drainage on some of the FM roads is a constant problem. There is no record of repetitive flood properties in the county, but Morris County and participating jurisdictions are susceptible to the effects of flooding.

Extent: Over 2 to 3 inches of rain per hour is considered heavy rain in Morris County. Some seepage into homes or other structures could occur during a heavy downpour.

EXTENT: Possible Amounts of Flooding Within Jurisdictions		
Jurisdiction	**From**	**To**
Morris County Unincorporated	2 inches	>5 feet
Daingerfield	2 inches	>2-3 feet
Lone Star	2 inches	>5 feet
Naples	2 inches	>1-2 feet
Omaha	2 inches	>1-2 feet

FEMA Estimated Base Flood Elevation Viewer Map



Summary: The jurisdictions of Daingerfield, Lone Star, Naples, and Omaha may experience flooded streets due to flash flooding. All the jurisdictions have emergency procedures in place to warn citizens about flooded streets. Barricades and cones are on hand to warn drivers of flooded areas. There are no repetitive flood properties in the jurisdictions. In Morris County, identified sections of rural roads and highways frequently flood after heavy rains. In these areas roads are well marked to warn drivers of impending danger. Educational programs like "Turn Around, Don't Drown" will help citizens become more informed about the dangers of flooded roadways. Alternate routes for emergency vehicles should be identified before flooding occurs.

HAILSTORM

Description:
Hail is a form of precipitation that occurs at the beginning of thunderstorms. It is in the form of balls or lumps of ice, usually called hailstones. Hail is formed when raindrops pass through a belt of cold air on their way to earth. This belt of cold air causes the raindrops to freeze into small blocks of ice. The formation of hail requires the presence of cumulonimbus or other convective clouds with strong updrafts. The air turbulence that accompanies thunderstorms aids the formation of hailstones. The water that goes into the formation of hailstones is super-cooled water. It is at a temperature below freezing point but still in the form of a liquid. Hailstones start falling when they become too heavy to be supported by air currents.

Hailstones are not formed by single raindrops. However, the process of formation of a hailstone does start with the freezing of a single raindrop. This may be carried by a strong current to the level where rain is still falling as it drops. And as this again passes through the cold air belt, new raindrops may cling to the frozen hailstone, thus increasing its size. Hailstones grow by repeated collisions with super-cooled water. This water is suspended in the cloud through which the particle is traveling. Those single frozen raindrops that do not get carried back to the raindrop level remain as smaller hailstones.

Hailstorms are common in the middle latitudes, and a heavy shower lasts around 15 minutes. Hailstorms occur during mid to late afternoon. Big hailstones falling with force are known to have caused fatalities to humans and animals.

The following chart shows the Combined NOAA/TORRO Hailstorm Intensity Scales:

Combined NOAA/TORRO Hailstorm Intensity Scales

Size Code	Intensity Category	Typical Hail Diameter (inches)	Approximate Size	Typical Damage Impacts
H0	Hard Hail	up to 0.33	Pea	No damage
H1	Potentially Damaging	0.33-0.60	Marble or Mothball	Slight damage to plants, crops
H2	Potentially Damaging	0.60-0.80	Dime or grape	Significant damage to fruit, crops, vegetation
H3	Severe	0.80-1.20	Nickel to Quarter	Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
H4	Severe	1.2-1.6	Half Dollar to Ping Pong Ball	Widespread glass damage, vehicle bodywork damage
H5	Destructive	1.6-2.0	Silver dollars to Golf Ball	Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
H6	Destructive	2.0-2.4	Lime or Egg	Aircraft bodywork dented; brick walls pitted
H7	Very destructive	2.4-3.0	Tennis ball	Severe roof damage, risk of serious injuries
H8	Very destructive	3.0-3.5	Baseball to Orange	Severe damage to aircraft bodywork
H9	Super Hailstorms	3.5-4.0	Grapefruit	Extensive structural damage. Risk of severe or even fatal injuries to people caught in the open
H10	Super Hailstorms	4+	Softball and up	Extensive structural damage. Risk of severe or even fatal injuries to people caught in the open

Sources: www.noaa.gov and www.torro.org

HISTORY OF HAILSTORMS IN MORRIS COUNTY

The NOAA Satellite and Information Service, National Climatic Data Center, reports that there have been eleven hail events reported between 2014 and 2024 in all of Morris County. Sizes ranged from .88 to 2 with the largest occurring in Naples, Texas.

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
DANGERFIELD	MORRIS CO.	TX	03/28/2014	15:45	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
OMAHA	MORRIS CO.	TX	04/27/2014	19:00	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
LONE STAR	MORRIS CO.	TX	04/28/2014	00:45	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
LONE STAR	MORRIS CO.	TX	04/28/2014	00:48	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
LONE STAR	MORRIS CO.	TX	03/10/2018	23:15	CST-6	Hail	1.25 in.	0	0	0.00K	0.00K
DANGERFIELD	MORRIS CO.	TX	03/10/2018	23:21	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
DANGERFIELD	MORRIS CO.	TX	04/07/2019	05:29	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
LONE STAR	MORRIS CO.	TX	04/07/2019	05:35	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
JENKINS	MORRIS CO.	TX	06/09/2020	19:29	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
NAPLES	MORRIS CO.	TX	04/09/2021	11:51	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
VEALS	MORRIS CO.	TX	05/10/2021	12:26	CST-6	Hail	1.25 in.	0	0	0.00K	0.00K
VEALS	MORRIS CO.	TX	05/10/2021	12:50	CST-6	Hail	1.50 in.	0	0	0.00K	0.00K
LONE STAR	MORRIS CO.	TX	07/14/2022	05:31	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
ORE	MORRIS CO.	TX	06/13/2023	14:29	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
NAPLES	MORRIS CO.	TX	06/13/2023	17:26	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
OMAHA	MORRIS CO.	TX	06/13/2023	18:24	CST-6	Hail	1.50 in.	0	0	0.00K	0.00K
NAPLES	MORRIS CO.	TX	06/14/2023	11:28	CST-6	Hail	2.00 in.	0	0	0.00K	0.00K

Morris County Hailstorm Risk					
COMMUNITY	**POTENTIAL IMPACT 45%**	**PROBABLITY 30%**	**Warning 15%**	**Duration 10%**	**RISK**
Morris Unincorporated	Limited PRI=1	Highly Likely PRI=4	<6 hrs. PRI=4	<6 hrs. PRI=1	Medium2.35
Daingerfield	Limited PRI=1	Highly Likely PRI=4	<6 hrs. PRI=4	<6 hrs. PRI=1	Medium2.35
Lone Star	Limited PRI=1	Highly Likely PRI=4	<6 hrs. PRI=4	<6 hrs. PRI=1	Medium2.35
Naples	Limited PRI=1	Highly Likely PRI=4	<6 hrs. PRI=4	<6 hrs. PRI=1	Medium2.35
Omaha	Limited PRI=1	Highly Likely PRI=4	<6 hrs. PRI=4	<6 hrs. PRI=1	Medium2.35

MORRIS COUNTY CRITICAL FACILITIES

Facility	Morris Co	Daingerfield	Lone Star	Naples	Omaha
City Hall	0	1	1	1	1
Volunteer Fire Department	2	2	1	1	1
Civic Center	0	0	0	0	0
Govt. Facility	1	0	0	0	1
Wastewater plant	0	1	1	0	0
Corrections Facility	1	0	0	0	0
Hospital	0	0	0	0	0
Maintenance Barn	3	0	0	0	0
Post Office	0	1	1	1	1
Water Tower	0	1	1	1	1
Police Station	0	1	1	1	1
Sheriff Office	1	0	0	0	0
EMS	1	1	1	1	1
Public School Districts	0	1	0	0	1
Water Treatment Plant	0	1	0	0	0
County Seat	0	1	0	0	0

All critical facilities in Morris County are subject to some damage from an intense hailstorm.

Location: Hailstorms can strike anywhere in Morris County including the jurisdictions of Daingerfield, Lone Star, Naples, and Omaha.

Probability: According to the FEMA National Risk Index the risk of hail in Morris County is relatively moderate.

Impact: The impact of a hailstorm has historically been limited. Hail damage autos, roofs, siding, and crops. See tables on page 23 for a more comprehensive look at possible damage values.

Estimated Property Loss at 25%		
Morris County Unincorporated	Residential	$28,130,916
Daingerfield	Residential	$18,284,255
Lone Star	Residential	$13,392,995
Naples	Residential	$11,194,798
Omaha	Residential	$8,147,603

Vulnerability: Buildings, autos, crops, can be damaged by hail. Hail is often part of thunderstorm activity. In some rare cases hail can cause physical injury. The overall vulnerability level in Morris County is relatively high.

Extent: Based on historical data it can be expected that Morris County will experience a H5 Destructive Hailstorm (NOAA/TORRO Hailstorm Intensity scale).

Summary: Hailstorms are unpredictable and often associated with thunderstorm activity. Thunderstorms have historically occurred throughout the county, and if the trend continues, all of Morris County and its jurisdictions could be affected by hailstorms.

LIGHTNING

Description

Lightning is a massive electrostatic discharge between electricity charged regions within clouds, or between a cloud and the earth's surface. Lightning can strike communications equipment like radiocommunication and emergency response. Lightning strikes can also cause severe damage to buildings, critical facilities, and infrastructure, by igniting a fire. Lightning can strike and kill people. It can also ignite wildfire.

The National Lightning Safety Institute (http://lightningsafety.com) defines the following forms of lightning:

Direct Strike: This is the most dangerous hazard, wherein the person or structure is in a direct path for lightning currents. The magnitude of the current determines its effects. A typical amperage of 20kA acting on a ground of 10 ohms creates 200,000V. A large strike can attain 150kA levels. More than 50 volts will drive a potentially lethal current through the body.

Side Strike: This hazard results from the breakup of the direct strike when alternate parallel paths of current flow into the ground via a person or structure. When the initial current path offers some resistance to current flow, a potential above ground current develops and the person or structure's resistance to ground becomes the alternate path of conduction.

Conducted Strike: This hazard occurs when lightning strikes a conductor which in turn introduces the current into an area some distance from the ground strike point. Unprotected connected equipment can be damaged, and personnel may be injured if they become an indirect path in the completion of the ground circuit.

Structure Voltage Gradient: Current passing through two or more structures creates momentary voltage differential. Poor interconnect bonding may cause a completed circuit potential difference. The same hazard is created, for example, by a person touching an ungrounded object while they are grounded. The electrical circuit is completed through the person, sometimes with fatal consequences.

Induced Effects: Lightning can induce electric field and magnetic field coupling into structures and into wiring. Magnetic coupling is transformer action, and the common laws for transformers prevail.

Streamer Conductor: The streamer hazard occurs when a lightning leader influences the electric behavior of objects on the Earth. Even streamers which do not become a part of the main channel can contain significant amounts of current. Streamer current exposure can affect people and sensitive electronics.

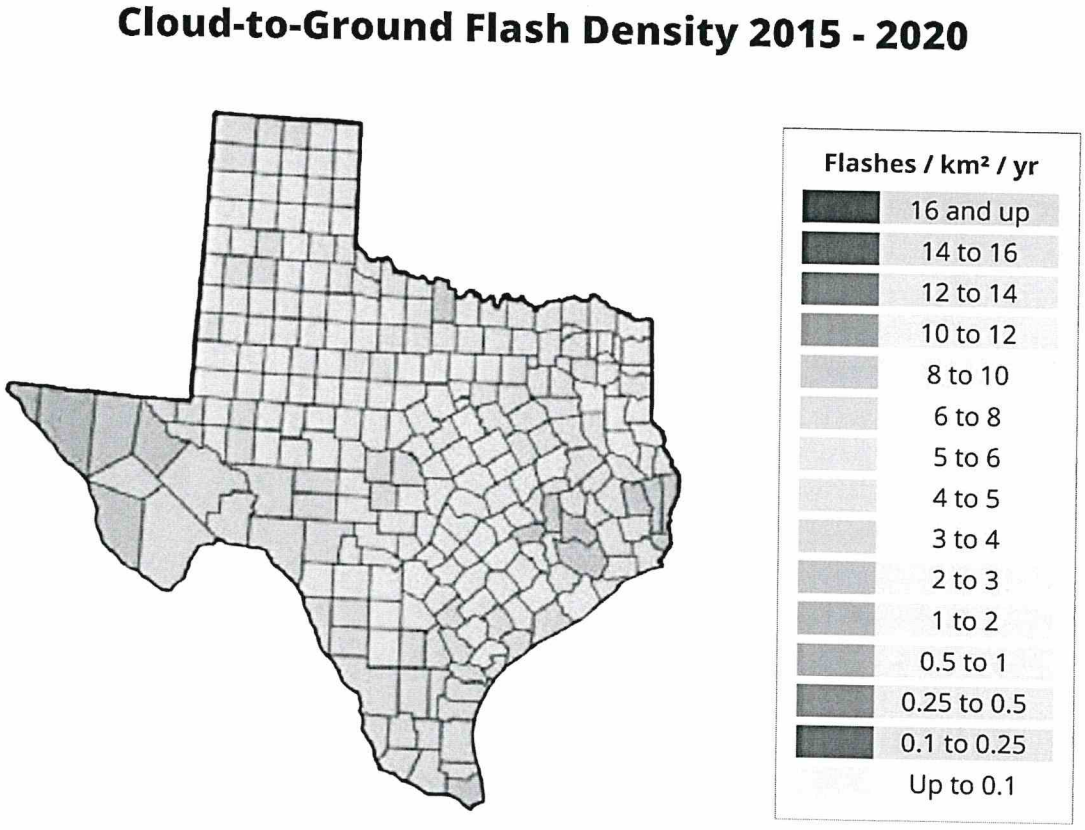
Sequelae: These secondary effects are many. Forest and grass fires, explosive steam conditions in masonry, trees and other water-bearing objects, and consequences of the thunderclap startling a person into inadvertently throwing a switch are examples.

Step Voltage/Touch Voltage: This hazard occurs as a result of a lightning strike dissipating its energy through the ground. The ground current creates a voltage drop across the surface of the Earth. A person standing within several hundred feet from the lightning strike point can have several hundred volts generated between their feet. This hazard is identical to a person being grounded while touching two live wires, one with each hand.

Lightning Activity Level (LAL)

LAL 1	No thunderstorms
LAL 2	Isolated thunderstorms. Light rain will occasionally reach the ground. Lightning is very infrequent, 1 to 5 cloud to ground strikes in a 5-minute period.
LAL 3	Wildly scattered thunderstorms. Light to moderate rain will reach the ground. Lightning is infrequent, 6 to 10 cloud to ground strikes in a 5-minute period.
LAL 4	Scattered thunderstorms. Moderate rain is commonly produced. Lightning is frequent, 11 to 15 cloud to ground strikes in a 5-minute period.
LAL 5	Numerous thunderstorms. Rainfall is moderate to heavy. Lightning is frequent and intense, greater than 15 cloud to ground strikes in a 5-minute period.
LAL 6	Dry lightning (same as LAL 3 without rain). This type of lightning has the potential for extreme fire activity and is normally highlighted in fire weather forecasts with a Red Flag Warning.

Lightning can happen anywhere in the state of Texas. According to the map below Morris County can expect a flash density of 5-6 cloud to ground strikes per kilometer squared per year.



Source: 2023 State of Texas Hazard Mitigation Plan

Morris County Lightning Risk					
COMMUNITY	POTENTIAL IMPACT 45%	PROBABLITY 30%	Warning 15%	Duration 10%	RISK
Morris Unincorporated	Limited PRI=1	Highly Likely PRI=4	<6 hrs. PRI=4	<6 hrs. PRI=1	Medium 2.35
Daingerfield	Limited PRI=1	Highly Likely PRI=4	<6 hrs. PRI=4	<6 hrs. PRI=1	Medium 2.35
Lone Star	Limited PRI=1	Highly Likely PRI=4	<6 hrs. PRI=4	<6 hrs. PRI=1	Medium 2.35
Naples	Limited PRI=1	Highly Likely PRI=4	<6 hrs. PRI=4	<6 hrs. PRI=1	Medium 2.35
Omaha	Limited PRI=1	Highly Likely PRI=4	<6 hrs. PRI=4	<6 hrs. PRI=1	Medium 2.35

MORRIS COUNTY CRITICAL FACILITIES

Facility	Morris Co	Daingerfield	Lone Star	Naples	Omaha
City Hall	0	1	1	1	1
Volunteer Fire Department	2	2	1	1	1
Civic Center	0	0	0	0	0
Govt. Facility	1	0	0	0	1
Wastewater plant	0	1	1	0	0
Corrections Facility	1	0	0	0	0
Hospital	0	0	0	0	0
Maintenance Barn	3	0	0	0	0
Post Office	0	1	1	1	1
Water Tower	0	1	1	1	1
Police Station	0	1	1	1	1
Sheriff Office	1	0	0	0	0
EMS	1	1	1	1	1
Public School Districts	0	1	0	0	1
Water Treatment Plant	0	1	0	0	0
County Seat	0	1	0	0	0

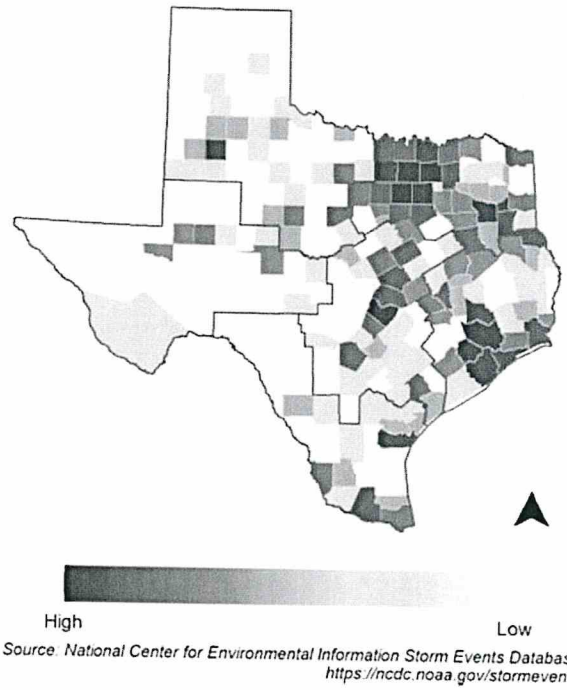
All Critical Facilities in Morris are vulnerable to the effects of intense lightning.

Estimated Property Loss at 15%		
Morris County Unincorporated	Residential	$16,878,550
Daingerfield	Residential	$10,970,553
Lone Star	Residential	$8,094,605
Naples	Residential	$6,716,879
Omaha	Residential	$4,888,562

Historical Occurrences: In the past ten years there has been 1 recorded lightning event reported in Morris County based on the NCEI records which includes the NOAA storm events database. Lightning struck a cluster of trees at Daingerfield State Park from a thunderstorm that moved near the park. At least five trees showed signs of lightning damage, with the strike causing the main underground water and sewer lines to explode. It also blew the phone box off the pump station and smoked all of the outlets in the Big Pine Bathhouse. Pieces of the concrete sidewalk blew at several joints leading to the bathhouse. The extent of this damage caused the closure of the park until repairs could be made.

It is highly likely that more lightning occurrences have gone unreported before and during the recording period. The flash density for the planning area along with input from local team members indicates regular lightning occurrences that simply have not been reported to the weather service.

Lightning: Historic Events by County
(source: 2023 Texas Hazard Mitigation Plan)



Source. National Center for Environmental Information Storm Events Database
https://ncdc.noaa.gov/stormevents/

Major Declarations for Planning Area: There were no major declarations for Lightning.

Location: Lightning can strike in any geographic location and is considered a common occurrence in Texas. The Morris County planning area, and the jurisdictions of Daingerfield, Lone Star, Naples, and Omaha are susceptible to lightning strikes. Therefore, lightning could occur at any location within the entire planning area. It is assumed that the Morris County planning area is uniformly exposed to the threat of lightning.

Probability: According to FEMA National Risk Index Morris County the risk for lightning is relatively low. Based on historical records and input from the planning team the probability of occurrence for future lightning events in Morris County, including the jurisdictions of Daingerfield, Lone Star, Naples, and Omaha are considered unlikely, including damage to a building or a critical facility.

Lightning will strike far more frequently in a world under climate change – but researchers can still not predict exactly where or when those strikes will occur. New research from the University of California, Berkeley, found warming conditions would result in 50% more lightning strikes by the end of the century. (theguardian.com)

Impact: There are no recorded deaths but there was a monetary loss of $30,000 due to lightning in Morris County. The probability and potential of death and property loss remain palpable. The effects of climate change, changes in population and changes in land development are not expected to affect the impact of a lightning event.

Vulnerability: Texas leads the nation in the number of annual lightning strikes. During a thunderstorm lightning may strike anywhere in Morris County. It is possible for Morris County to have a Lightning Activity Level (LAL) of LAL 2 or LAL 3.

Extent: According to a historical event, lightning occurring in Morris County could cause major destruction affecting critical infrastructure including water and sewer lines.

Summary: Lightning can strike anywhere in Morris County. When damage occurs, it is important to report the incident to NOAA to establish credible data. Actions in this plan reflect sensible measures to take to lower the risks of lightning strikes in Morris County.

THUNDERSTORM WINDS

Thunderstorms winds are typically straight-line winds and do most of the damage when accompanying a thunderstorm. Sometimes people think that a tornado has struck because the straight-line winds can be as powerful as a strong tornado, but straight-line winds do not spin. A downburst is an example of a straight-line wind. 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.

Thunderstorms are most likely in the spring and summer but can occur anytime. Windstorms could last as little as a few minutes to last a few days. The greatest severe weather threat in the U.S. extends from Texas to southern Minnesota.

The Beaufort Scale below is the standard for measuring wind effects on both land and sea.

Beaufort Scale

Beaufort Number	Wind Speed	Seaman's Term	Effects on Land
0	Under 1	Calm	Calm: Smoke rises vertically
1	1-3	Light Air	Smoke drift indicates wind direction; vanes do not move
2	4-7	Light Breeze	Wind Felt on face; leaves rustle; vanes begin to move.
3	8-12	Gentle Breeze	Leaves, small twigs in constant motion; light flags extended
4	13-18	Moderate Breeze	Dust, leaves, and loose paper raised up; small branches move.
5	19-24	Fresh Breeze	Small trees begin to sway
6	25-31	Strong Breeze	Large branches of trees in motion; whistling heard in wires.
7	32-38	Moderate Gale	Whole trees in motion; resistance felt in walking against the wind.
8	39-46	Fresh Gale	Twigs and small branches broke off trees.
9	47-54	Strong Gale	Slight structural damage occurs; slate blown from roofs.
10	55-63	Whole Gale	Seldom experienced on land; trees broken; structural damage occurs
11	64-72	Storm	Very rarely experienced on land; usually with widespread damage
12	73 or higher	Hurricane	Violence and destruction.

Source: www.mountwashington.org

THUNDERSTORM WINDS PAST OCCURANCES IN MORRIS COUNTY
(Data from National Climatic Data Center 2014-2024)

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag
DANGERFIELD	MORRIS CO.	TX	07/23/2014	17:15	CST-6	Thunderstorm Wind	56 kts. EG
DANGERFIELD	MORRIS CO.	TX	07/23/2014	17:36	CST-6	Thunderstorm Wind	55 kts. EG
DANGERFIELD	MORRIS CO.	TX	05/10/2015	23:30	CST-6	Thunderstorm Wind	56 kts. EG
ROCKY BRANCH	MORRIS CO.	TX	10/31/2018	15:40	CST-6	Thunderstorm Wind	56 kts. EG
CASON	MORRIS CO.	TX	12/26/2018	23:32	CST-6	Thunderstorm Wind	56 kts. EG
LONE STAR	MORRIS CO.	TX	12/26/2018	23:35	CST-6	Thunderstorm Wind	52 kts. EG
DANGERFIELD	MORRIS CO.	TX	12/26/2018	23:35	CST-6	Thunderstorm Wind	52 kts. EG
LONE STAR	MORRIS CO.	TX	06/19/2019	04:45	CST-6	Thunderstorm Wind	56 kts. EG
OMAHA	MORRIS CO.	TX	10/21/2019	01:55	CST-6	Thunderstorm Wind	61 kts. EG
OMAHA	MORRIS CO.	TX	04/24/2020	19:30	CST-6	Thunderstorm Wind	56 kts. EG
OMAHA	MORRIS CO.	TX	04/24/2020	19:30	CST-6	Thunderstorm Wind	70 kts. EG
DAINGERFIELD	MORRIS CO.	TX	05/24/2020	15:31	CST-6	Thunderstorm Wind	56 kts. EG
CASON	MORRIS CO.	TX	05/24/2020	15:36	CST-6	Thunderstorm Wind	52 kts. EG
OMAHA	MORRIS CO.	TX	04/04/2022	23:27	CST-6	Thunderstorm Wind	52 kts. EG
OMAHA	MORRIS CO.	TX	04/13/2022	12:42	CST-6	Thunderstorm Wind	61 kts. EG
LONE STAR	MORRIS CO.	TX	04/13/2022	13:10	CST-6	Thunderstorm Wind	56 kts. EG
NAPLES	MORRIS CO.	TX	06/10/2023	10:11	CST-6	Thunderstorm Wind	52 kts. EG
LONE STAR	MORRIS CO.	TX	06/15/2023	23:30	CST-6	Thunderstorm Wind	61 kts. EG
ROCKY BRANCH	MORRIS CO.	TX	04/26/2024	16:40	CST-6	Thunderstorm Wind	61 kts. EG

Major Declarations for Planning Area: Morris County was a designated area for Public Assistance in the FEMA 4781-DR, Texas Disaster Declaration, May 2024, Texas Severe Winter Storms, Tornadoes, Straight line Winds, and Flooding.

Morris County Thunderstorm Winds Risk					
COMMUNITY	POTENTIAL IMPACT 45%	PROBABLITY 30%	Warning 15%	Duration 10%	RISK
Morris Unincorporated	Minor PRI=2	Highly Likely PRI=4	6-12 hrs. PRI=3	<6 hrs. PRI=1	Medium 2.65
Daingerfield	Minor PRI=2	Highly Likely PRI=4	6-12 hrs. PRI=3	<6 hrs. PRI=1	Medium 2.65
Lone Star	Minor PRI=2	Highly Likely PRI=4	6-12 hrs. PRI=3	<6 hrs. PRI=1	Medium 2.65
Naples	Minor PRI=2	Highly Likely PRI=4	6-12 hrs. PRI=3	<6 hrs. PRI=1	Medium 2.65
Omaha	Minor PRI=2	Highly Likely PRI=4	6-12 hrs. PRI=3	<6 hrs. PRI=1	Medium 2.65

MORRIS COUNTY CRITICAL FACILITIES

Facility	Morris Co	Daingerfield	Lone Star	Naples	Omaha
City Hall	0	1	1	1	1
Volunteer Fire Department	2	2	1	1	1
Civic Center	0	0	0	0	0
Govt. Facility	1	0	0	0	1
Wastewater plant	0	1	1	0	0
Corrections Facility	1	0	0	0	0
Hospital	0	0	0	0	0
Maintenance Barn	3	0	0	0	0
Post Office	0	1	1	1	1
Water Tower	0	1	1	1	1
Police Station	0	1	1	1	1
Sheriff Office	1	0	0	0	0
EMS	1	1	1	1	1
Public School Districts	0	1	0	0	1
Water Treatment Plant	0	1	0	0	0
County Seat	0	1	0	0	0

All critical Facilities are vulnerable to the effects of Thunderstorm winds.

Location: Historically, all of Morris County has been affected by thunderstorms. If this trend continues, the entire County will be subject to their damage. This would include the jurisdictions of Daingerfield, Lone Star, Naples, and Omaha.

Probability: Given the climate and history, thunderstorms are highly likely during the storm season. Thunderstorms and their accompanying high winds are most prolific in the Spring and Summer months; however, they may occur at any time in Morris County given the right conditions. Morris County and its' jurisdictions are susceptible to damage from thunderstorm winds. Microbursts and downbursts produce winds severe enough to be mistaken for tornadoes. The entire county is vulnerable to high winds associated with thunderstorms. FEMA National Risk Index for Strong Winds in Morris County is relatively moderate.

Rising global temperatures due to climate change means warmer air, which allows it to hold more moisture which boosts the chance of thunderstorms. (rmets.org)

Impact: According to NOAA Satellite and Information Service of the National Climatic Data Center, there were 13 days with thunderstorm wind events reported in Morris County between 2014 and 2024. The magnitude ranged from 52 kts. to 70 kts. There were no events with property damage. The effects of climate change, changes in population and changes in land development are not expected to affect the impact of a hazard event.

Vulnerability: The County is susceptible to flash flooding and wind damage from severe thunderstorms. Most of the flooding occurs in the rural areas where crops and property can be severely damaged.

Extent: There were no reported injuries or deaths from thunderstorm winds in Morris County. Historical data indicates the entire county is susceptible to windstorms with a Beaufort Scale rating of 10.

Estimated Property Loss at 15%	
Morris County Unincorporated	$32,696,857
Daingerfield	$22,030,700
Lone Star	$10,658,600
Naples	$10,360,853
Omaha	$6,593,657

Summary: High winds in Morris County can be a destructive force associated with thunderstorms. Thunderstorms also spawn tornadoes. Deteriorating infrastructure, mobile homes, business signage and crops are most susceptible to damage. Daingerfield, Lone Star, Naples, and Omaha, and Morris County residents share susceptibility to thunderstorm wind damage.

TORNADO

Description

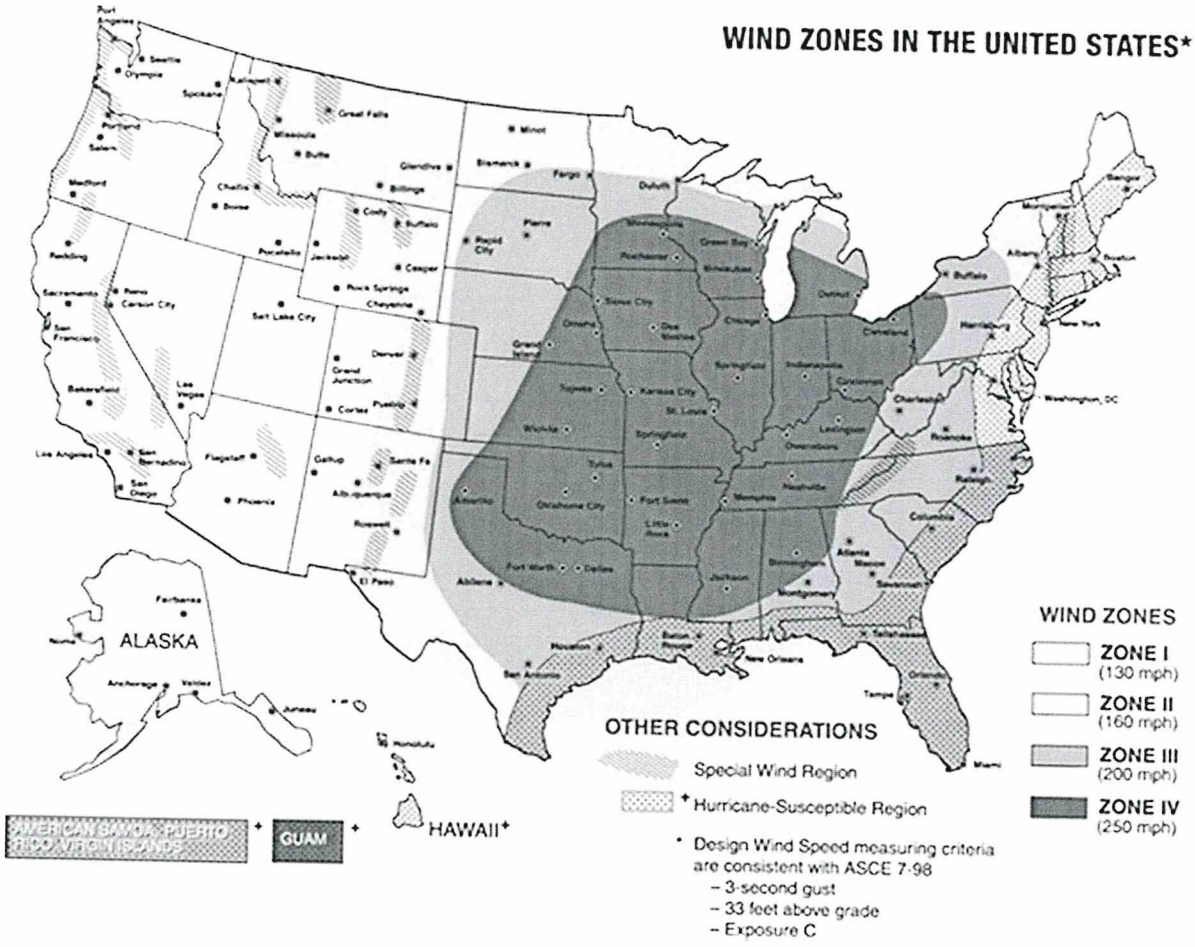
A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm and produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. The damage from a tornado is a result of the high wind velocity and wind-blown debris. According to Wikipedia, most tornados have wind speeds of less than 110 miles per hour, are about 250 feet across, and travel a few miles before dissipating. The most extreme tornado can attain wind speed of more than 300 miles per hour, are more than two miles in diameter, and stay on the ground for dozens of miles.

On earthnetworks.com it states wind shear is one of the most critical components for the formation of a tornado. Wind shear is the change of direction and speed of the wind with height. This can create a horizontal spinning effect within a storm cell. The rotating air of an updraft meets the rotating air of a downdraft and creates that iconic and scary funnel cloud. Tornadoes are visible because, nearly all the time they have a condensation funnel made up of water droplets, dust, dirt, and debris.

Tornado season is from late Spring to early Summer, although tornadoes can occur at any time of the year. They tend to occur in the afternoons and evenings while over 80 percent of all tornadoes strike between noon and midnight.

Texas is the state with the most tornadoes, experiencing on average 120 tornadoes annually, provoking about 11 deaths per year. With its vast size and diverse geography, Texas is prone to tornado activity throughout the year, resulting in a significant number of tornado-related incidents and fatalities. (wisevoter.com)

According to homefacts.com, Morris County, Texas is listed as moderate risk for Tornadoes. The largest tornado in Morris County was an F4 in 1971 that caused 5 injuries and 1 death. There have been 134 tornadoes in Morris County since 1950.


WIND ZONES IN THE UNITED STATES*
WIND ZONES
ZONE I (130 mph)
ZONE II (160 mph)
ZONE III (200 mph)
ZONE IV (250 mph)
OTHER CONSIDERATIONS
Special Wind Region
+ Hurricane-Susceptible Region
* Design Wind Speed measuring criteria are consistent with ASCE 7-98
– 3-second gust
– 33 feet above grade
– Exposure C
ALASKA
HAWAII+
GUAM +
AMERICAN SAMOA, PUERTO RICO, VIRGIN ISLANDS +

The **Enhanced Fujita Scale**, or **EF Scale** shown below, is the scale for rating the strength of tornadoes in the United States estimated via the damage they cause. Implemented in place of the Fujita scale, it was used starting February 1, 2007. The scale has the same basic design as the original Fujita scale, six categories from zero to five representing increasing degrees of damage. It was revised to reflect better examinations of tornado damage surveys, to align wind speeds more closely with associated storm damage. The new scale considers how most structures are designed and is thought to be a much more accurate representation of the surface wind speeds in the most violent tornadoes.

Enhanced Fujita (EF) Scale		
Enhanced Fujita Category	**Wind Speed (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; mobile homes overturned or badly damaged; loss of exterior doors; windows and other broken glass.
EF2	111-135	**Considerable damage.** Roofs torn off well-constructed houses; foundations of frame homes shifted; mobile homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; 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 missiles generated.
EF5	>200	**Incredible damage.** Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 m (109 yd.); high-rise buildings have significant structural deformation; incredible phenomena will occur.

source : http://en.wikipedia.org/wiki/Enhanced_Fujita_Scale

TORNADO PAST OCCURANCES IN MORRIS COUNTY
(Data from National Climatic Data Center)
2014 – 2024

March 21, 2022: This is a continuation of the Upshur/Marion County EF-2 tornado. This tornado, which remained an EF-1 with estimated maximum winds near 110 mph from far Western Marion County, snapped numerous trees in far Southeast Morris County along and east of Morris County Cutoff Road/County Road 2307, before entering Southwestern Cass County.

November 4, 2022: This EF-3 tornado with estimated maximum winds of 155 mph initially started along FM-144 south of the Cason community and very quickly became quite destructive, producing EF-3 damage to a home, and EF-2 damage to multiple structures before tracking northeast to Texas Highway 11. A few mobile homes were destroyed near the start of the tornado which resulted in several injuries. The tornado continued to track northeast from Texas Highway 11 to Highway 49, doing mostly EF-1 damage for 3 miles before reaching Highway 49. As the tornado crossed Highway 49, two nearby homes were destroyed and swept from their foundations and at least one injury resulted. This damage was only rated EF-2 because of the pier and beam foundation construction of both homes did not anchor the structures well to the intense wind loading. Behind the homes, some isolated tree debarking was observed with a swath of EF-3 damage with maximum winds of 140 mph. The tornado continued to the northeast, destroying a mobile home along CR-3201, where one fatality associated with this tornado occurred. The tornado continued to advance northeastward, doing mainly EF-1 damage to trees and some structures before knocking over and destroying a few large electrical transmission lines near the intersection of CR-3211 and CR-3209. EF-2 level winds at 125 mph were estimated to have caused this structural damage.

Major Declarations for Planning Area: Morris County was a designated area for Public Assistance in the FEMA 4781-DR, Texas Disaster Declaration, May 2024, Texas Severe Winter Storms, Tornadoes, Straight line Winds, and Flooding.

Tornadoes in Morris County 1996-2024

Fujita Scale	Tornados	Estimated Damage
EF0	3	$1,000
EF1	1	$10,000
EF2	3	$40,000
EF3	1	$5,000,000
EF4	0	$0
EF5	0	$0
Total	**8**	$5,051,000

Morris County Tornado Risk					
COMMUNITY	POTENTIAL IMPACT 45%	PROBABLITY 30%	Warning 15%	Duration 10%	RISK
Morris Unincorporated	Substantial PRI=4	Highly Likely PRI=4	< 6 hrs. PRI=4	< 6 hrs. PRI=1	High 3.7
Daingerfield	Substantial PRI=4	Unlikely PRI=1	< 6 hrs. PRI=4	< 6 hrs. PRI=1	Medium 2.8
Lone Star	Substantial PRI=4	Unlikely PRI=1	<6hrs. PRI=4	<6 hrs. PRI=1	Medium 2.8
Naples	Substantial PRI=4	Unlikely PRI=1	< 6 hrs. PRI=4	< 6 hrs. PRI=1	Medium 2.8
Omaha	Substantial PRI=4	Unlikely PRI=1	< 6 hrs. PRI=4	< 6 hrs. PRI=1	Medium 2.8

MORRIS COUNTY CRITICAL FACILITIES

Facility	Morris Co	Daingerfield	Lone Star	Naples	Omaha
City Hall	0	1	1	1	1
Volunteer Fire Department	2	2	1	1	1
Civic Center	0	0	0	0	0
Govt. Facility	1	0	0	0	1
Wastewater plant	0	1	1	0	0
Corrections Facility	1	0	0	0	0
Hospital	0	0	0	0	0
Maintenance Barn	3	0	0	0	0
Post Office	0	1	1	1	1
Water Tower	0	1	1	1	1
Police Station	0	1	1	1	1
Sheriff Office	1	0	0	0	0
EMS	1	1	1	1	1
Public School Districts	0	1	0	0	1
Water Treatment Plant	0	1	0	0	0
County Seat	0	1	0	0	0

All critical facilities are vulnerable to the destructive forces of a tornado.

Location: Tornado Alley is a term often used by the media to denote a zone in the Great Plains region of the central United States, often a north-south oriented region centered on north Texas, Oklahoma, Kansas, and Nebraska, where tornadoes are most frequent. Morris County and the participating jurisdictions of Daingerfield, Lone Star, Naples, and Omaha can be struck by a tornado.

Probability: Tornadoes are most frequent in the months of April, May, and June. While tornadoes can occur at any time during the day or night, they tend to form during the late afternoon and into the evening. Based on a historical trend over the past 25 years, there is a 24% chance that a tornado will strike Morris County in any given year. Strong scientific evidence predicts an increase in violent weather in Morris County. Most tornadoes are expected to touch down for short periods of time in a bounce type pattern. The possibility of a tornado touchdown on an annual basis is

considered likely for the County. According to the FEMA National Risk Index, Morris County risk for Tornado is relatively moderate.

According to noaa.gov there is a greater risk of more off-season tornadoes in a warmer future climate, meaning more tornadic activity when people least expect it.

Impact: A strategically placed F4 or F5 Tornado could destroy Daingerfield, Lone star, Naples, and Omaha. Fortunately, a storm of that magnitude never occurred. Damage *could* be substantial. The full range of 65 (F0) to 200 mph (F4 +) is considered to determine the extent. Tornadoes can produce damage that ranges from minor wind damage to total destruction. The effects of climate change, changes in population and changes in land development are not expected to affect the impact of a hazard event.

Vulnerability: Due to the frequency and unpredictable pattern of tornadoes, all of Morris County is vulnerable to tornado-induced damage. The potential damage is high due to the concentrations of populated areas, number of mobile homes and manufactured housing units throughout the county.

Extent: Historically, the severity of tornadoes in Morris County has ranged from EF0 to EF3 on the Enhanced Fujita (EF) Scale.

Estimated Property Loss at 50%	
Morris County Unincorporated	$108,989,523
Daingerfield	$110,153,498
Lone Star	$53,292,998
Naples	$51,804,263
Omaha	$32,968,283

Summary: The jurisdictions of Morris County, Daingerfield, Lone Star, Naples, and Omaha would experience substantial damage from tornadoes. Many of the businesses have prefabricated structures and most of the housing is older, wood frame dwellings. Even EF 2 winds would cause major damage. The school systems have emergency plans in place to protect the children. It is conceivable that a targeted tornado strike could result in a 50 to 75% property loss. Upgrades in building codes and safe room construction are important life savers in these rural communities.

WILDFIRE

Description

A wildfire is an uncontrolled fire that burns in wildland vegetation, often in rural areas. Wildfires can burn in forests, grasslands, savannas, and other ecosystems, and have been doing so for hundreds of millions of years. They are not limited to a particular continent or environment. Wildfires can burn in vegetation located both in and above the soil. Ground fires typically ignite in soil thick with organic matter that can feed the flames, like plant roots. Ground fires can smolder for a long time—even the entire season—until conditions are right for them to grow to a surface or crown fire. Surface fires, on the other hand, burn in dead or dry vegetation that is lying or growing just above the ground. Parched grass or fallen leaves often fuel surface fires. Crown fires burn in the leaves and canopies of trees and shrubs. (National Geographic)

Wildfires typically start in woodland or prairie areas. They can occur naturally though they are often exacerbated by human activities. Wildfires can be hard to control as they threaten homes and communities located nearby. Wildfires happen in every state, and they do not respect county or state lines. The impact of fire reaches well beyond the initial flames and smoke. Even if firefighters can protect homes and businesses, the aftermath of wildfire can be just as devastating as floods.

In Texas, the greatest high-danger fire threats are forest, brush, and grass fires. The East Texas Piney Woods belt of commercial timber is most susceptible to forest fires. In East Texas, the most monetary damage was caused by arson. Arsonists were responsible for 1 of every 4 fires. Debris burning is and continues to be the major cause of fires. Other causes such as control burns, construction fires and other miscellaneous fires rank second.

There is not a direct relationship between climate change and fire, but researchers have found strong correlations between warm summer temperatures and large fire years, so there is a consensus that fire occurrence will increase with climate change. (www.usgs.gov)

Should any part of the State of Texas experience extended periods of fair, windy weather, implementation of countywide bans on outdoor burning may be advised as a wildfire prevention tool in that area. Indicators that dictate the need for a burn ban could include: 1000 HR fuel moisture, Energy Release Component and run occurrence of local fire departments.

The ISO (Insurance Services Office) is an independent, for-profit organization. The ISO scores fire departments on how they are doing against its organization's standards to determine property insurance costs. The ISO assigns a Public Protection Classification (PPC) from 1 to 10, with 1 being the best. (powerdms.com)

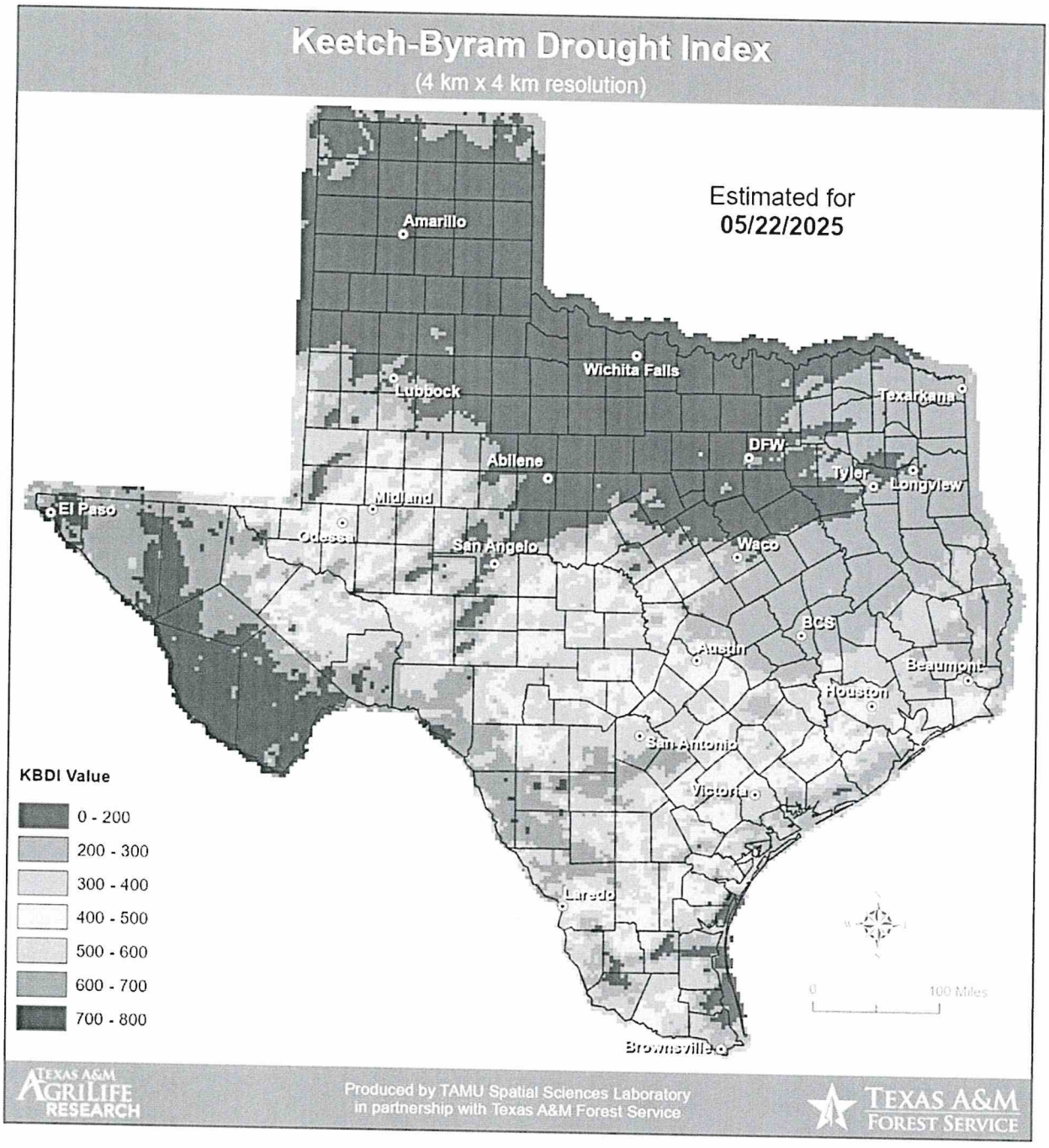
PUBLIC PROTECTION CLASSIFICATIONS (PPC) FOR MORRIS COUNTY FIRE DEPARTMENTS

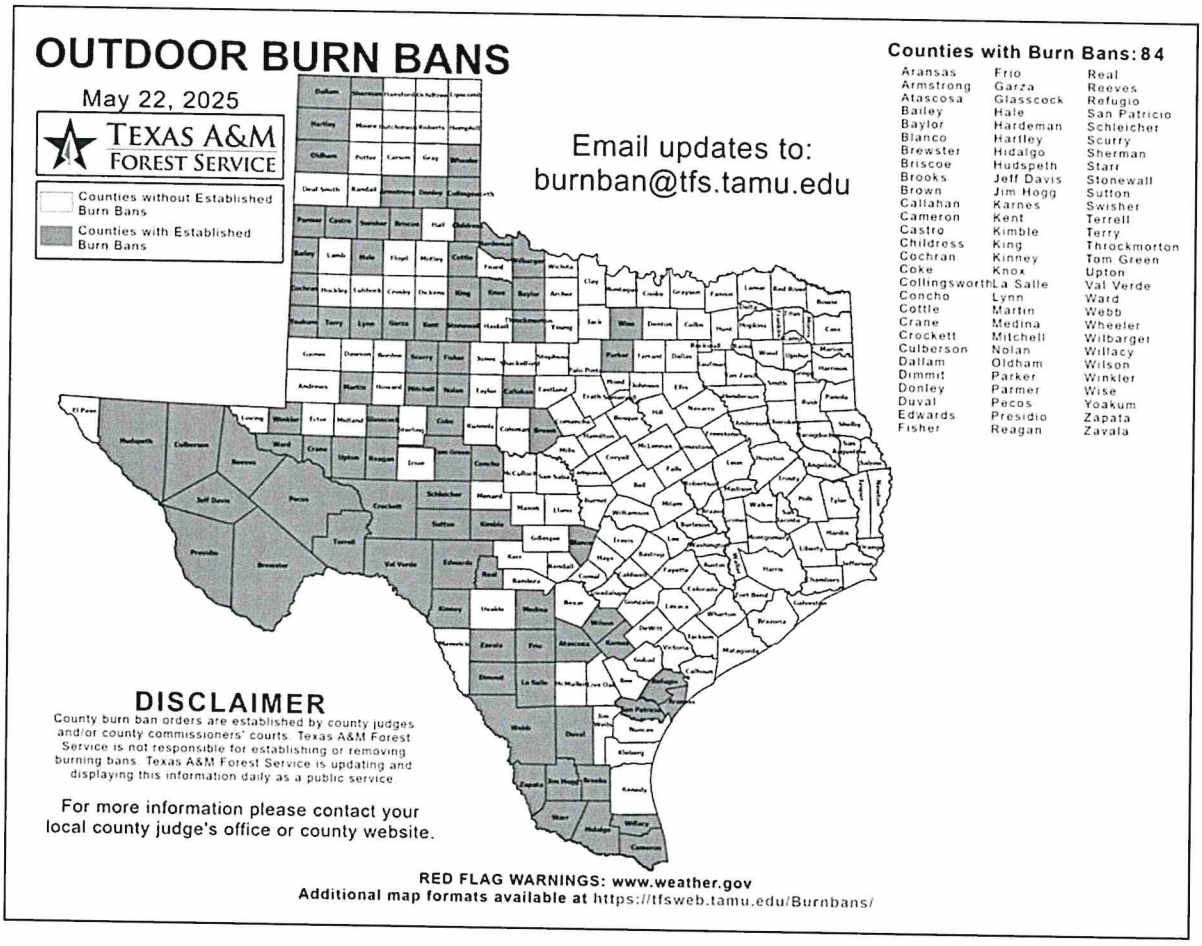
Fire Department	Protection Class
Cason Volunteer Fire Department	9
Daingerfield Volunteer Fire Department	5
Jenkins Volunteer Fire Department	9
Lone Star Volunteer Fire Department	6
Naples Volunteer Fire Department	6
Omaha Volunteer Fire Department	5
Rocky Branch Volunteer Fire Department	9

The Keetch-Byram Drought Index (KBDI) is a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is the most widely used drought index system by fire managers in the south. It is also one of the only drought index systems specifically developed to equate the effects of drought with potential fire activities. The result of this system is a drought index number ranging from 0 to 800 that accurately describes the amount of moisture that is missing. A rating of zero defines the point where there is no moisture deficiency and 800 is the maximum drought possible.

Expected Fire Conditions with Varying KBDI Levels	
0 – 200 Low Fire Danger	Soil and fuel moisture is high. Most fuels will not readily ignite or burn. However, with sufficient sunlight and wind, cured grasses and some light surface fuels will burn in spots and patches.
200 – 400 Moderate Fire Danger	Fires more readily burn and will carry across an area with no "gaps." Heavier fuels will still not readily ignite and burn. Also, expect smoldering and the resulting smoke to carry into and through the night.
400 – 600 High Fire Danger	Fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days, creating smoke and control problems.
600 – 800 Extreme Fire Danger (600 – 800 continued)	Surface litter and most organic layers are consumed. 1000-hour fuels contribute to intensity. Stumps will burn to the end of roots underground. Any dead snag will ignite. Spotting from snags is a major problem if close to line. Expect dead limbs on trees to ignite from sparks. Expect extreme intensity on all fires that makes control efforts difficult. With winds above 10 miles per hour, spotting is the rule. Expect increased need for resources for fire suppression. A direct initial attack is almost impossible. Only rapid response time to wildfire with complete mop-up and patrol will prevent a major fire situation from developing.

The map below shows the current (January 29, 2024) KBDI for Morris County at 200-300.




OUTDOOR BURN BANS
May 22, 2025
TEXAS A&M FOREST SERVICE
Counties without Established Burn Bans
Counties with Established Burn Bans
Email updates to:
burnban@tfs.tamu.edu
Counties with Burn Bans: 84
Aransas
Armstrong
Atascosa
Bailey
Baylor
Blanco
Brewster
Briscoe
Brooks
Brown
Callahan
Cameron
Castro
Childress
Cochran
Coke
Collingsworth
Concho
Cottle
Crane
Crockett
Culberson
Dallam
Dimmit
Donley
Duval
Edwards
Fisher
Frio
Garza
Glasscock
Hale
Hardeman
Hartley
Hidalgo
Hudspeth
Jeff Davis
Jim Hogg
Karnes
Kent
Kimble
King
Kinney
Knox
La Salle
Lynn
Martin
Medina
Mitchell
Nolan
Oldham
Parker
Parmer
Pecos
Presidio
Reagan
Real
Reeves
Refugio
San Patricio
Schleicher
Scurry
Sherman
Starr
Stonewall
Sutton
Swisher
Terrell
Terry
Throckmorton
Tom Green
Upton
Val Verde
Ward
Webb
Wheeler
Wilbarger
Willacy
Wilson
Winkler
Wise
Yoakum
Zapata
Zavala
DISCLAIMER
County burn ban orders are established by county judges and/or county commissioners' courts. Texas A&M Forest Service is not responsible for establishing or removing burning bans. Texas A&M Forest Service is updating and displaying this information daily as a public service.
For more information please contact your local county judge's office or county website.
RED FLAG WARNINGS: www.weather.gov
Additional map formats available at https://tfsweb.tamu.edu/Burnbans/

Functional Wildland Urban Interface (WUI)

Functional WUI represents a classification of the land near buildings into zones that describe the wildfire risk mitigation activities appropriate for each zone.

Direct Exposure—The Direct Exposure zone is a burnable land cover within 75 m of a structure. Reducing fire intensity and ember production in this zone would reduce the exposure of nearby buildings to heat and embers.

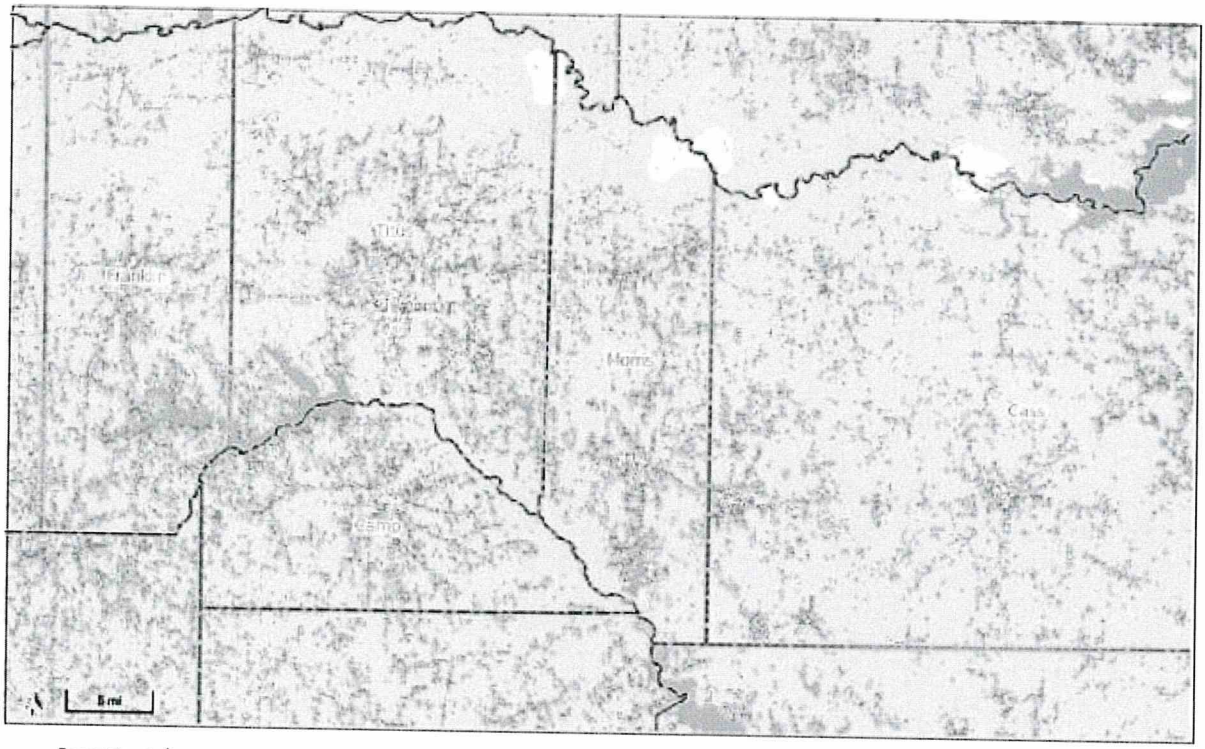
Indirect Exposure—The Indirect Exposure zone is nonburnable land cover within 1500 m of burnable land cover that is within 75 m of a structure, meaning that embers and home-to-home spread could reach within this zone.

Critical Fireshed—The Critical Fireshed is the unpopulated land within about 2.4 km of a group of structures. Fires that originate within or spread to the Critical Fireshed have an immediate threat of reaching the nearby structures; fuel treatments that slow fire spread in this zone can reduce risk to these structures.

Sources of Ember Load to Buildings—These are areas of burnable land cover that produces embers capable of reaching nearby buildings. Ember production is a function of fire type and intensity, and ember travel is a function of wind speed and direction. Fuel treatment in this zone is a priority for reducing ember load to the nearby buildings.

Little-to-no Exposure—The Little-to-no Exposure zone is nonburnable land that is within 75 m of a structure but greater than 1500 m from a large (500 ha) contiguous block of burnable land cover. Flames—even from home-to-home spread—and embers are unlikely to reach the Little-to-no-Exposure zone, but smoke and evacuations could still impact this area.

Morris County, TX WUI



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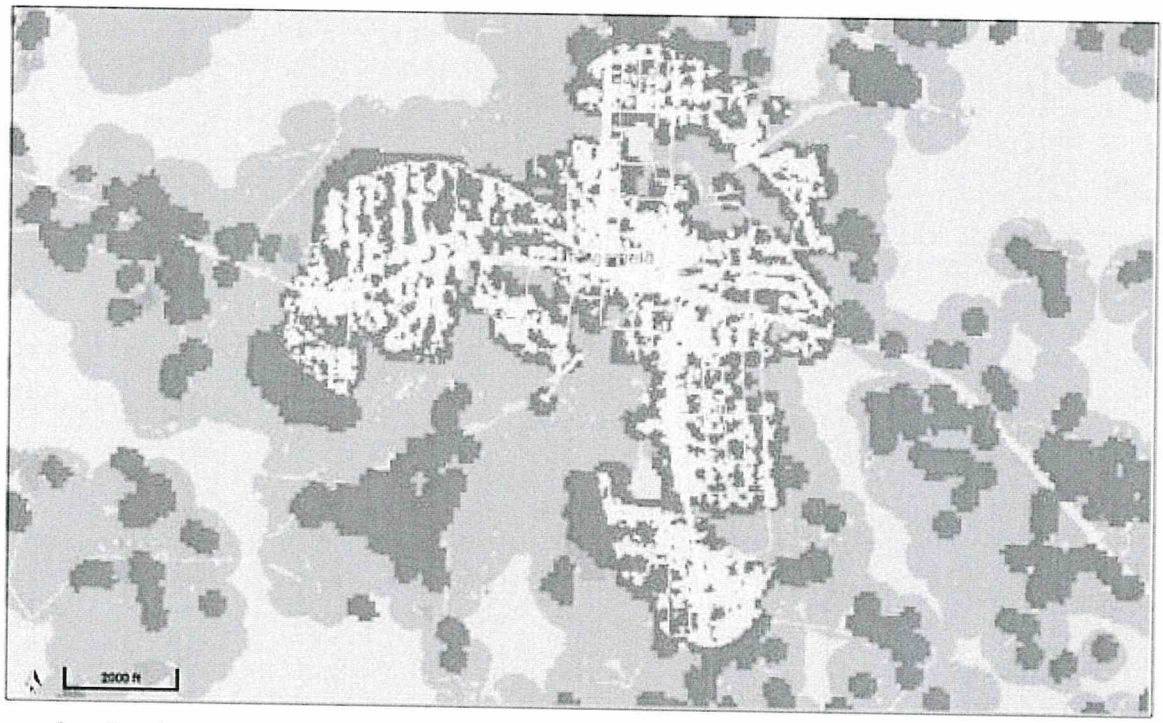
Texas Wildfire Risk Explorer
https://wrap.texaswildfirerisk.com

TEXAS A&M FOREST SERVICE

Daingerfield, TX WUI



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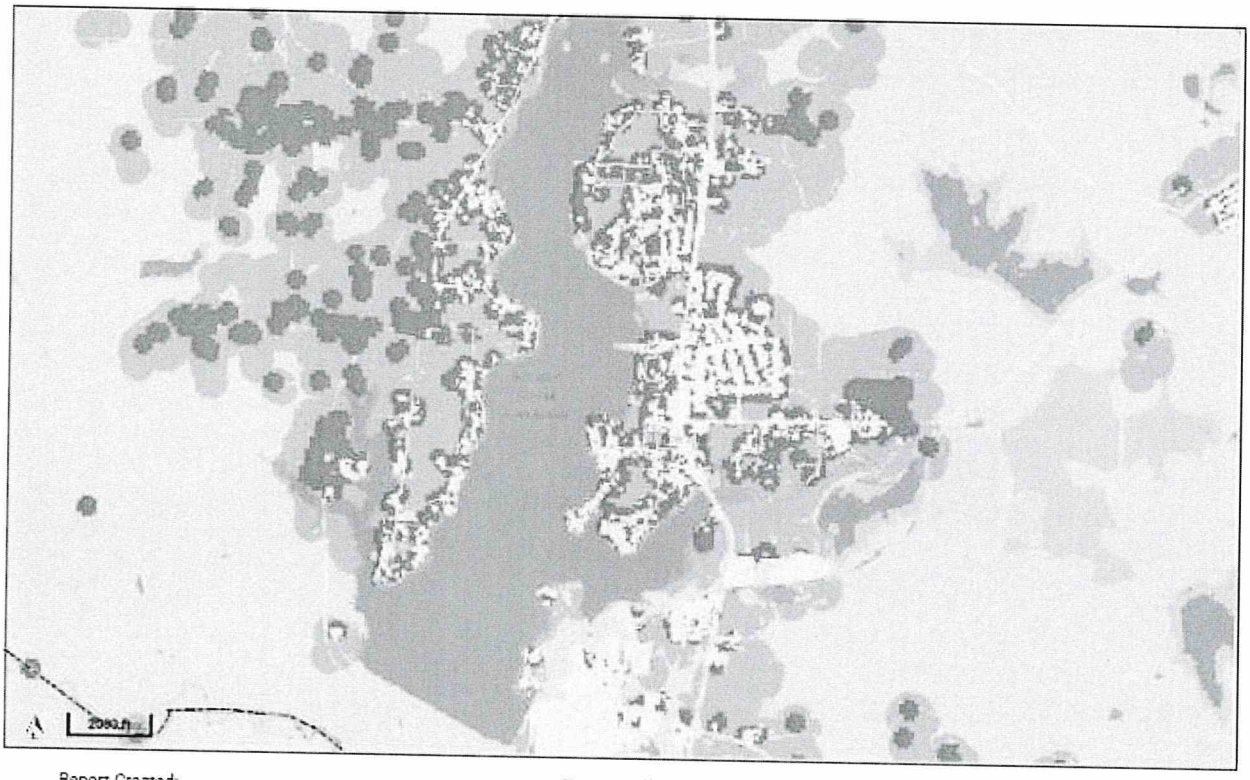
Texas Wildfire Risk Explorer
https://wrap.texaswildfirerisk.com

TEXAS A&M FOREST SERVICE

Lone Star, TX WUI



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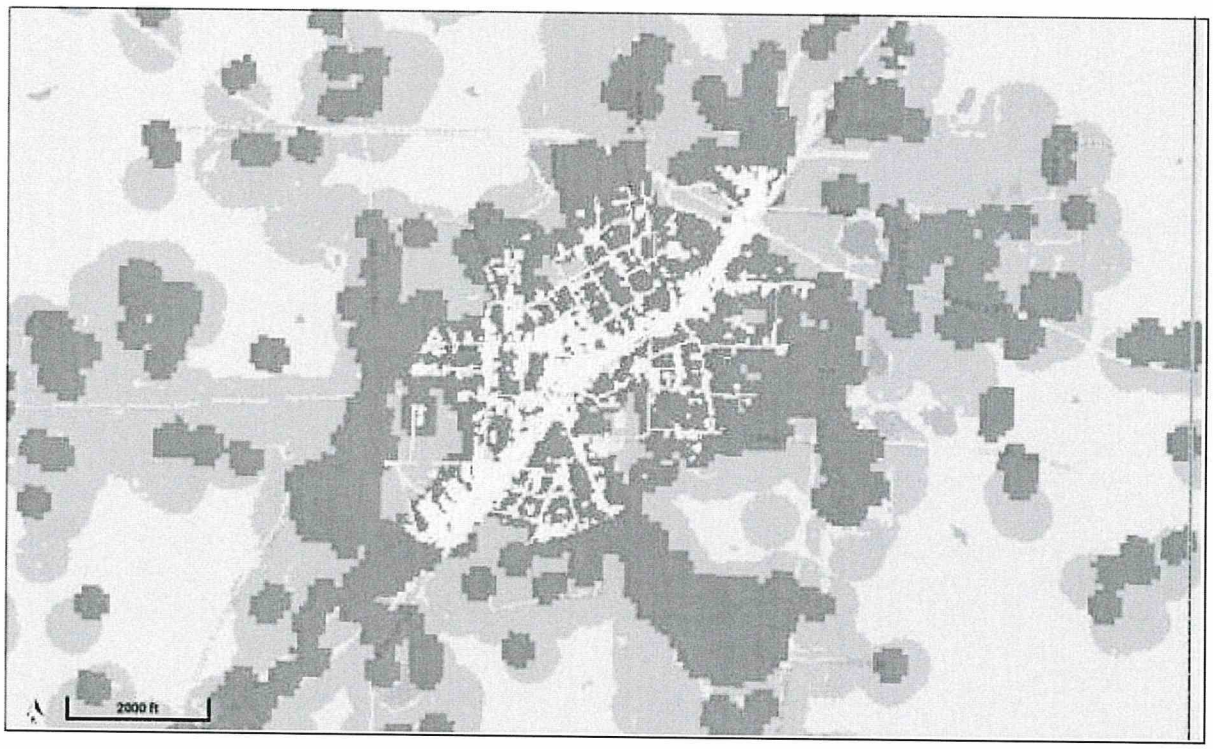
Texas Wildfire Risk Explorer
https://wrap.texaswildfirerisk.com

TEXAS A&M FOREST SERVICE

Naples, TX WUI



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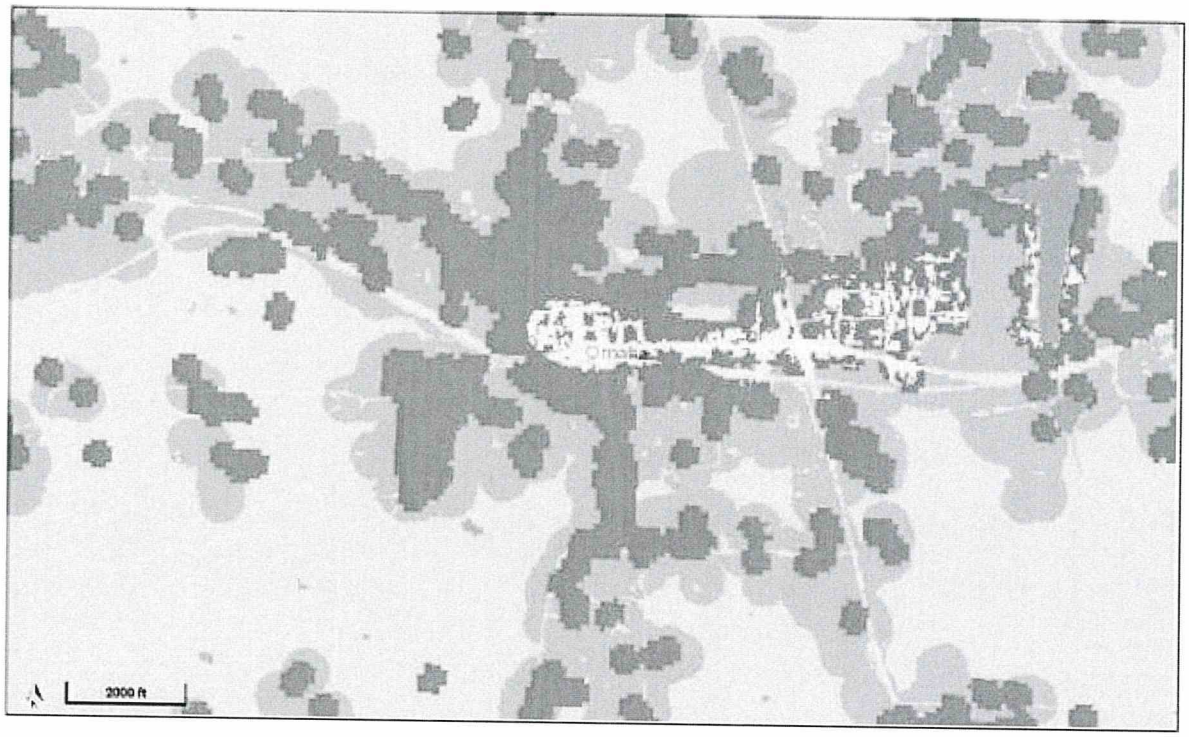
Texas Wildfire Risk Explorer
https://wrap.texaswildfirerisk.com

TEXAS A&M FOREST SERVICE

Omaha, TX WUI

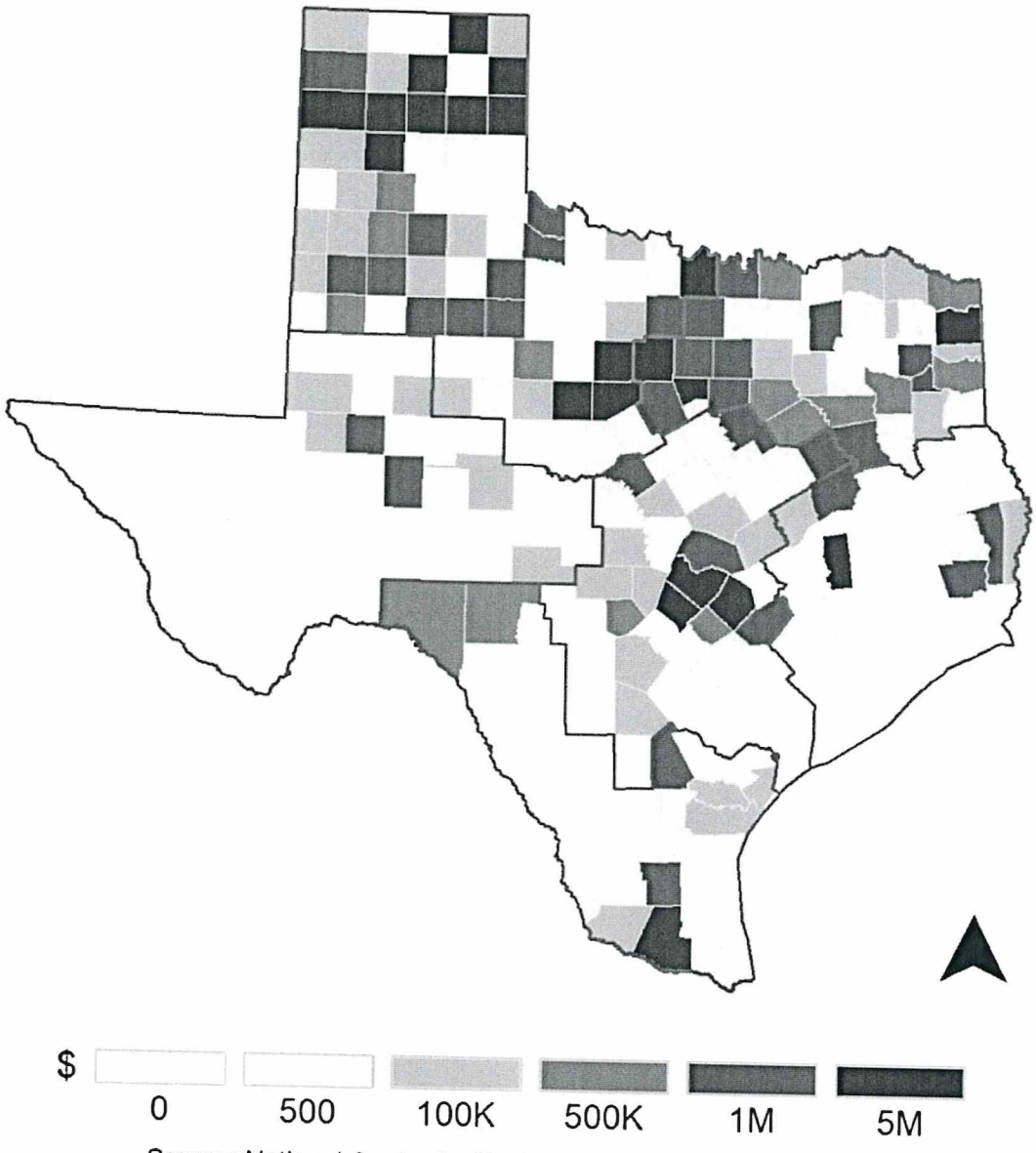


Report Created:
5/22/2025 - 1:34:38 PM

Texas Wildfire Risk Explorer
https://wrap.texaswildfirerisk.com

TEXAS A&M FOREST SERVICE

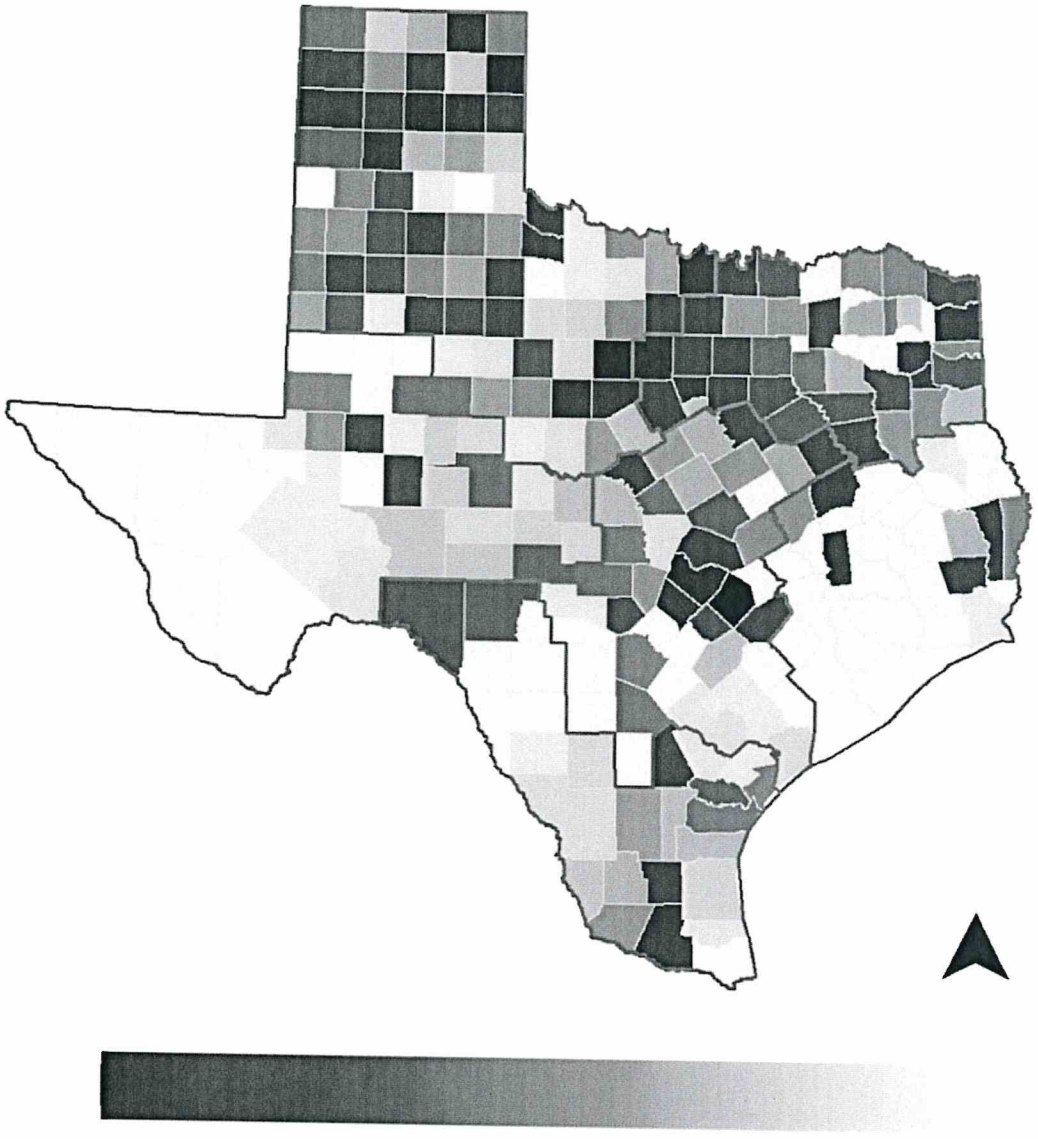
Wildfire: Historical Dollar Losses, 2000-2021



Source: National Center for Environmental Information Storm Events Database
https://ncdc.noaa.gov/stormevents/

Source: 2023 SHMP

Wildfire: Counties at Greatest Risk



High

Low

Source: National Center for Environmental Information Storm Events Database
https://ncdc.noaa.gov/stormevents/

Source: 2023 SHMP

Morris County Wildfire Risk					
COMMUNITY	POTENTIAL IMPACT 45%	PROBABLITY 30%	Warning 15%	Duration 10%	RISK
Morris Unincorporated	Substantial PRI=4	Highly Likely PRI=4	< 6 hrs. PRI=4	< Week PRI=3	High 3.9
Daingerfield	Substantial PRI=4	Highly Likely PRI=4	< 6 hrs. PRI=4	< Week PRI=3	High 3.9
Lone Star	Substantial PRI=4	Unlikely PRI=1	< 6 hrs. PRI=4	< Week PRI=3	Medium 2.85
Naples	Substantial PRI=4	Highly Likely PRI=4	< 6 hrs. PRI=4	< Week PRI=3	High 3.9
Omaha	Substantial PRI=4	Highly Likely PRI=4	< 6 hrs. PRI=4	< Week PRI=3	High 3.9

MORRIS COUNTY CRITICAL FACILITIES

Facility	Morris Co	Daingerfield	Lone Star	Naples	Omaha
City Hall	0	1	1	1	1
Volunteer Fire Department	2	2	1	1	1
Civic Center	0	0	0	0	0
Govt. Facility	1	0	0	0	1
Wastewater plant	0	1	1	0	0
Corrections Facility	1	0	0	0	0
Hospital	0	0	0	0	0
Maintenance Barn	3	0	0	0	0
Post Office	0	1	1	1	1
Water Tower	0	1	1	1	1
Police Station	0	1	1	1	1
Sheriff Office	1	0	0	0	0
EMS	1	1	1	1	1
Public School Districts	0	1	0	0	1
Water Treatment Plant	0	1	0	0	0
County Seat	0	1	0	0	0

All critical facilities are vulnerable to wildfires.

MORRIS COUNTY PAST OCCURANCES OF WILDFIRE 2014-2024

Source: Texas A & M Forest Service

Type of Fire	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Arson	1	0	1	0	0	0	0	0	0	0	0
Campfire	0	0	0	0	0	0	0	0	0	0	0
Debris burning	16	12	14	9	5	7	6	8	21	8	3
Equipment use	1	0	1	1	2	0	0	1	4	0	0
Fireworks	0	0	0	0	0	0	0	0	0	0	0
Lightning	0	0	0	0	0	0	0	0	0	0	0
Natural	2	0	1	2	1	0	0	1	2	1	0
Other causes	2	0	3	0	0	0	0	0	1	1	1
Powerlines	4	3	2	2	4	0	0	3	3	1	2
Railroads	0	0	0	0	0	0	0	0	1	0	0
Recreation	0	0	0	0	0	0	0	0	0	0	1
Structure	0	0	0	0	0	0	0	0	0	0	0
Undetermined	0	1	0	1	0	4	0	5	3	1	0
Total	26	16	22	15	12	11	6	18	35	12	6

MORRIS COUNTY WILDFIRE BY ACREAGE 2014-2024

Source: Texas A & M Forest Service

YEAR	ACREAGE
2014	169.03
2015	94.36
2016	85.05
2017	152.00
2018	45.25
2019	30.25
2020	21.75
2021	72.25
2022	137.40
2023	58.25
2024	69.10
TOTAL	934.69

Major Declarations for Planning Area: There were no major declarations for wildfires.

Location: Due to heavy vegetation and dry conditions, wildfire events in Morris County are possible any time during the year. All of Morris County and the participating jurisdictions could be affected, depending on where the wildfire started.

Probability: The FEMA National Risk Index lists Morris Counties' risk for wildfire as relatively low. The threat of fires cannot be eliminated but public education and the use of prescribed burns can be used to better manage this hazard in Morris County and participating jurisdictions. By 2050, Texas's average number of days with high wildfire potential is projected to double from 40 to nearly 80 days a year. (reportcard.statesatrisk.org)

Climate change could affect the length, frequency and burned areas of wildfire season. (epa.gov)

Impact: High winds, high temperatures, dry conditions, and low humidity can increase the potential and severity of wildfire. Wildfire can spread quickly, affecting large areas and rural areas. This type of fire could burn for days destroying structures and lives. Rural areas in Morris County experience most Wildfires. The KDBI Levels of 200 (moderate) to 800 (extreme) are considered when mitigating wildfires. The maps located on pages 72-76 demonstrate the wildfire urban interface. Should wildfire break out in the jurisdictions of Morris County, many acres would be in danger. The table below demonstrates estimated structure loss. See the Loss Estimate Tables on page 23 for further inquiry regarding loss. The effects of climate change, changes in population and changes in land development are not expected to affect the impact of a hazard event.

Estimated Structure loss at 25%	
Unincorporated Morris County	$54,494,761
Daingerfield	$36,717,833
Lone Star	$17,764,333
Naples	$17,268,088
Omaha	$10,989,428

Vulnerability: The most vulnerable month for wildfires is January. The most significant danger lies in the rural areas of the county where forests and pastures meet. Farm equipment and structures including barns and homes may be destroyed.

Extent: In the last ten years over 935 acres of land was affected by wildfires. A 25% loss could cost Morris County and participating jurisdictions over 137 million dollars.

Summary: Wildfires are more prevalent where counties have seasons of drought and extreme temperatures. Many wildfires ignited in N.E. Texas during the drought of 2011. Rural homes and structures have been threatened by the increased volume and magnitude of these occurrences. The entire planning area of Morris County and the participating jurisdictions are at risk from wildfire.

WINTER STORM

Description

Winter Storms are a hazard that poses a threat to the entirety of the planning area. Winter Storms in the context of this document refers to Freezing Rain, Ice Storms, Blizzards, and Heavy Snow events that may occur during the winter months in Morris County. The National Weather Service (NWS) glossary defines Ice Storms, Blizzards, and Heavy Snow events as:

Freezing Rain is "rain that falls as a liquid but freezes into glaze upon contact with the ground."

"An **ice storm** is an occasion when damaging accumulations of ice are expected during freezing rain situations. Significant accumulations of ice pull down trees and utility lines resulting in loss of power and communication. These accumulations of ice make walking and driving extremely dangerous. Significant ice accumulations are usually accumulations of ¼" or greater."

"A **blizzard** means that the following conditions are expected to prevail for a period of 3 hours or longer:

- Sustained wind or frequent gusts to 35 miles an hour or greater; and
- Considerable falling and/or blowing snow (i.e., reducing visibility frequently to less than ¼ mile)."

"A **heavy snow** generally means...

- snowfall accumulating to 4" or more in depth in 12 hours or less; or
- snowfall accumulating to 6" or more in depth in 24 hours or less."

In forecasts, snowfall amounts are expressed as a range of values, e.g., "8 to 12 inches." However, in heavy snow situations where there is considerable uncertainty concerning the range of values, more appropriate phrases are used, such as "...up to 12 inches..." or alternatively "...8 inches or more..."

The following National Weather Service warnings detail the potential extent of a storm.

National Weather Service WATCH: A message indicating that conditions favor the occurrence of a certain type of hazardous weather. For example, a severe winter weather watch means that a severe winter weather event is expected in the next six hours or so within an area approximately 120 to 150 miles wide and 300 to 400 miles long (36,000 to 60,000 square miles). The NWS Storm Prediction Center issues such watches. Local NWS forecast offices issue other watches 12 to 36 hours in advance of a possible hazardous- weather or flooding events. Each local forecast office usually covers a state or a portion of a state.

NWS WARNING: Indicates that a hazardous event is occurring or is imminent in about 30 minutes to an hour. Local NWS forecast offices issue warnings on a county-by-county basis.

Winter Storm WATCH: A winter storm is occurring, or will soon occur, in your area.

Winter Storm WARNING: Means sustained winds or frequent gusts to 35 miles per hour or greater and considerable falling or blowing snow (reducing visibility to less than a quarter mile)

are expected to prevail over a period of three hours or longer, and dangerous wind chills are expected in the warning area.

The *Wind Chill* temperature is simply a measure of how cold the wind makes real air temperature feel to the human body. Since wind can dramatically accelerate heat loss from the body, a blustery 30° day would feel just as cold as a calm day with 0° temperatures. The index was created in 1870, and on November 1, 2001, the National Weather Service released a more scientific equation, which is used today. Below is a chart for calculating wind chill. (Please note that it is not applicable in calm winds or when the temperature is over 50°.)

Wind Chill Chart

Wind (mph) \ Temperature (°F)	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45	26	29	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

Frostbite Times: 30 minutes | 10 minutes | 5 minutes

$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

Effective 11/01/01

Source: National Weather Service and NOAA

Ice storms most commonly develop along a line stretching from northern Texas to Newfoundland in slow-moving low-pressure systems where there is a large temperature difference between the warm Gulf air and cold Arctic air. Local accumulations of ice may be heavy if the storm stalls over a region for an extended time. Ice storms lasting 12 hours or more generally produce ice accumulations several centimeters thick. The typical ice storm swath is 30 miles wide and 300 miles long. Ice storms generally warrant major headlines only one year in three.

Ice storms typically begin with snow and strong easterly winds conditions well ahead of an approaching warm front. The snow, however, changes briefly to sleet and then to rain that freezes on impact, coating all exposed surfaces with a growing layer of ice.

For drivers, the consequences of icing can be serious, for stopping distances on ice are ten times greater than on dry pavement, and double that on packed snow.

Power and communication systems using overhead lines are perhaps hit hardest by ice storms. Hanging wire cables collect ice until the cable breaks or the rain stops. Animal and plants may be killed or injured by ice accumulation. Damage to trees rival's disease and insects as destructive agents.

The Christmas Day storm of 2000 clobbered counties along a 260-mile stretch of the Red River. Morris County was one of several counties declared a disaster area.

Back-to-back December weather fronts slammed North Texas with ice that produced the perfect ice storm. Many electric cooperatives were sent to their knees by the fury of the storms.

Potential Damage/Loss Due to Ice Storms

Life and Property

Slick roads and other surfaces cause traffic accidents resulting in death and injury. People shoveling snow have heart attacks. Property is at risk from flooding. Trees, power lines, telephone lines and subject to damage from accumulation of ice and snow. Trees fall on utility lines and houses.

Roads and Bridges

Fallen trees across roads can block access to emergency services. The ability to travel after an ice storm is a priority issue for hospitals, utilities, and emergency service vehicles.

Power Lines

Falling trees are a major cause of power outages resulting in interruption of services and damaged property. Downed power lines also create the danger of electrical shock.

Water Lines

Cast iron mainlines frequently break during severe freezes. Also, residential water lines often fail. The potential for severe winter storms is high and records indicate that the cost can be in millions of dollars, depending on the severity of the storm.

PAST OCCURANCES OF WINTER STORMS IN MORRIS COUNTY
(Data from National Climatic Data Center 2014-2024)

March 2, 2014: Surface temperatures slowly fell throughout the day with temperatures reaching the freezing mark by early afternoon across portions of the region. Temperatures cooled enough in the lower levels of the atmosphere such that freezing rain transitioned over to sleet across much of the area. Widespread sleet accumulations of one-half inch to 2 inches were reported. The freezing rain and sleet accumulations resulted in numerous automobile accidents along with power outages from falling limbs and trees throughout the northern half of Northeast Texas.

February 23, 2015: Temperatures during the predawn hours of February 23rd were mostly just above freezing but once the precipitation moved in from the west, the precipitation quickly changed over to freezing rain mixed with sleet as the temperatures fell during the day. There were freezing rain accumulations across Northeast Texas.

February 25, 2015: As the trough moved closer into the region from the west, the precipitation quickly transitioned over to sleet and eventually moderate to heavy snow across a good portion of the region after sunrise on the 25th. The mixed winter precipitation moved out of the region

during the late afternoon or early evening hours of the 25th. Snowfall totals across Northeast Texas along and north of the Interstate 20 corridor ranged from 1 inch to near 7 inches.

March 4, 2015: A cold, arctic airmass entered the region from the northwest during the late afternoon and early evening hours of Wednesday, March 4th. The precipitation began as cold rain but quickly transitioned to sleet during the late-night hours of March 4th with the precipitation transitioning over to snow during the morning hours of March 5th. Freezing rain amounts were nearly one tenth of an inch with sleet accumulations mainly less than one half inch. Snow amounts were less than 4 inches with widespread one to three inches reported across the northern half of Northeast Texas.

January 15, 2018: A trough of low pressure spread east across the Southern Plains during the evening hours of January 15th, with an arctic air mass quickly spilling south into the Ark-La-Tex during the late afternoon through the evening hours behind a strong cold front. Scattered areas of light rain developed along and just behind the front over much of Northeast Texas during the early evening, with the rain quickly changing over to a mixture of freezing rain, sleet, and then snow during the overnight hours. Ice accumulations of up to a tenth of an inch were common across the western sections of Northeast Texas, with snowfall accumulations of one to two inches, with isolated higher amounts observed.

February 14, 2021: A mix of sleet, and freezing rain was observed, before the precipitation transitioned over to snow during the early morning hours of the 15th. Widespread snow and sleet amounts ranged from 5 to 10 inches across Northeast Texas.

February 16, 2021: When combined with the previous winter storm on the 14th-15th, widespread snowfall totals of ten to fifteen inches were observed across these counties. These totals crippled the region, making driving nearly impossible, with rolling blackouts further aggravated by the additional power outages the snows were responsible for. In addition, the weight of the snow from these two back-to-back winter storms also resulted in numerous metal carport canopies collapsing across extreme Northeast Texas, with many homes and cars damaged.

Morris County Winter Storms Risk					
COMMUNITY	**POTENTIAL IMPACT 45%**	**PROBABLITY 30%**	**Warning 15%**	**Duration 10%**	**RISK**
Morris County Unincorporated	Minor PRI = 2	Highly Likely PRI = 4	6-12 hrs. PRI = 3	< a week PRI = 3	Medium 2.85
Daingerfield	Minor PRI = 2	Highly Likely PRI = 4	6-12 hrs. PRI = 3	< a week PRI = 3	Medium 2.85
Lone Star	Minor PRI = 2	Highly Likely PRI = 4	6-12 hrs. PRI = 3	< a week PRI = 3	Medium 2.85
Naples	Minor PRI = 2	Highly Likely PRI = 4	6-12 hrs. PRI = 3	< a week PRI = 3	Medium 2.85
Omaha	Minor PRI = 2	Highly Likely PRI = 4	6-12 hrs. PRI = 3	< a week PRI = 3	Medium 2.85

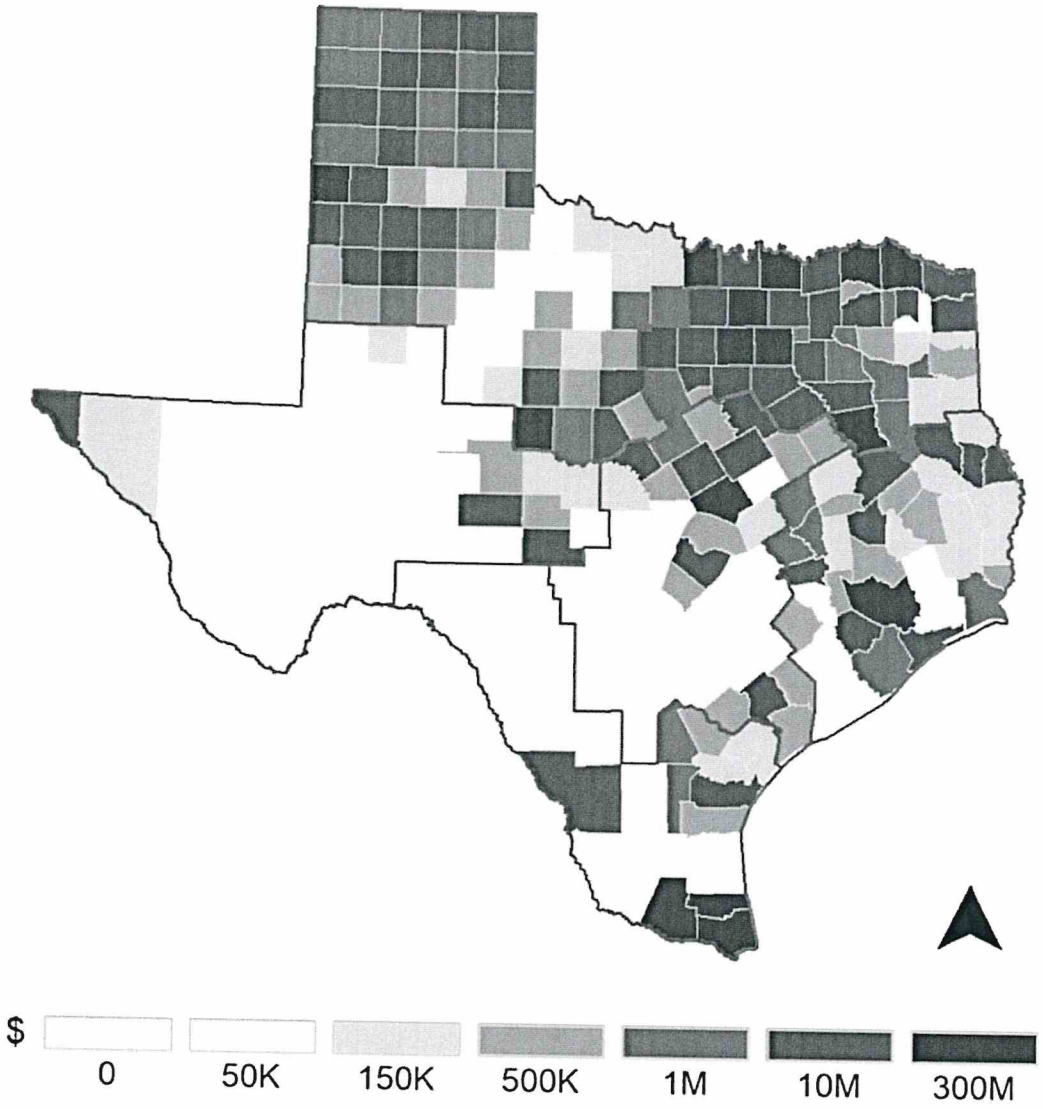
MORRIS COUNTY CRITICAL FACILITIES

Facility	Morris Co	Daingerfield	Lone Star	Naples	Omaha
City Hall	0	1	1	1	1
Volunteer Fire Department	2	2	1	1	1
Civic Center	0	0	0	0	0
Govt. Facility	1	0	0	0	1
Wastewater plant	0	1	1	0	0
Corrections Facility	1	0	0	0	0
Hospital	0	0	0	0	0
Maintenance Barn	3	0	0	0	0
Post Office	0	1	1	1	1
Water Tower	0	1	1	1	1
Police Station	0	1	1	1	1
Sheriff Office	1	0	0	0	0
EMS	1	1	1	1	1
Public School Districts	0	1	0	0	1
Water Treatment Plant	0	1	0	0	0
County Seat	0	1	0	0	0

All critical facilities are vulnerable to winter storms.

Major Declarations for Planning Area: Morris County was a designated area for Public Assistance in the FEMA 4781-DR, Texas Disaster Declaration, May 2024, Texas Severe Winter Storms, Tornadoes, Straight line Winds, and Flooding and FEMA 4586- DR in February 2021.

Severe Winter Weather: Historical Losses, 2000-2021



Source: National Center for Environmental Information Storm Events Database
https://ncdc.noaa.gov/stormevents/

Source: 2023 SHMP

Location: Winter Storms have no distinct geographic boundary. They can occur in every area of the county including the north Texas region.

Probability: According to FEMA National Risk Index the risk for winter weather in Morris County is relatively moderate and the risk for ice storm is relatively high. The probability of the occurrence of a freeze is high, given historical weather patterns. Seven winter storms occurred between 2014 and 2024. It is highly likely that a winter storm will occur in any given year. Morris County and the participating jurisdictions share the same likelihood of experiencing a winter storm.

The Artic is warming twice as fast as the rest of the world. As it warms, climate scientists are increasingly concerned that this can have significant implications for the jet stream, and cold arctic air is being pushed into areas that are not prepared for these conditions. (hsph.harvard.edu)

Impact: Although East Texas does not have severe winters it is not immune from some of the hazards of cold weather. Every year, winter weather indirectly kills hundreds of people in the U.S, primarily from automobile accidents but from overexertion, and hypothermia as well.

Heavy accumulations of ice can bring down trees and power lines, disabling electric power and communications for days. Heavy snow or ice can immobilize communities by shutting down transportation into, out of, and within the county. In rural areas and smaller communities, homes and farms may be isolated for days. Livestock and other animals can die from exposure. When the event happens in the early spring, crops such as fruit can be destroyed. Morris County and its jurisdictions can expect ice accumulations on streets, power lines and trees that will range from ¼ to ¾ of an inch.

Residents of Daingerfield, Lone Star, Naples, and Omaha could lose power to their sewage and water plant. They could lose power to homes and experience damage to city infrastructure. The elderly could suffer from lack of heat and lighting during a winter storm. The small businesses in the jurisdiction could experience lost revenue due to reduced traffic during winter storm events. Falling trees and tree limbs could damage property and block roadways in both jurisdictions. Auto accidents related to travel on icy roads increase.

Estimated Property Loss at 15%	
Unincorporated Morris County	$32,696,857
Daingerfield	$22,030,700
Lone Star	$10,658,600
Naples	$10,360,853
Omaha	$6,593,657

The Damage Assessment tables found on page 23 demonstrate the amount of damage that can be possible. A temperature between 32 degrees f. and 10 degrees f. is the range of temperature anticipated county wide that would create conditions for winter storms. The effects of climate change, changes in population and changes in land development are not expected to affect the impact of a hazard event.

Vulnerability: Morris County has a significant amount of acreage designated for conservation, public lands, and agricultural land uses. The small towns of Daingerfield, Lone Star, Naples, and Omaha are vulnerable to power outages, icy roads, and delayed emergency services.

Extent: During severe winter weather, Morris County and participating jurisdictions could experience structural damage due to limbs falling on homes, buildings, or utility lines. Traffic accidents could occur due to icy roads. Winter storm events could affect both rural Morris County and the jurisdictions of Daingerfield, Lone Star, Naples, and Omaha. Based on previous winter storm events, future storms in Morris County and participating jurisdictions may see snow accumulation of up to 7 inches and ice accumulation of up to 2 inches.

Summary: In rural east Texas, when moist gulf air meets arctic temperatures winter storms can occur. The storms usually take their toll from heavy accumulations of ice that form, often overnight, on trees, power lines and structures. In the more remote areas of the county homes may be without electrical power for days but critical facilities in more urban areas are operating within a few days. Daingerfield, Lone Star, Naples, Omaha, and rural Morris County may have power outages lasting one to two weeks.

CAPABILITY ASSESSMENT

Administrative, Financial, Regulatory, Outreach, and Technical Capabilities
Capability Assessment describes the ability of the jurisdictions to implement strategies and incorporate mitigation principles into other planning initiatives. Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of natural hazards. Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions. Education and outreach programs and methods can be used to implement mitigation activities and communicate hazard-related information.

Local Land Use Planning, City Plans and Ordinances
Morris County, Lone Star, Naples, and Omaha do not currently have any Code of Ordinances or Comprehensive Plans but are looking at this for the future.
The City of Daingerfield has a Code of Ordinances, Comprehensive Plan, Stormwater Ordinance, Subdivision Ordinance, International Fire Code, Zoning Ordinances, Building Codes and Code of Compliance.

Administrative Capabilities and Critical Mitigation Staffing Capabilities
Morris County Judge and Commissioners Court
Morris County Emergency Management Coordinator
Morris County Sheriff
Mitigation Planning Committee
City of Daingerfield Mayor and City Council
City of Lone Star Mayor and City Council
City of Naples Mayor and City Council
City of Omaha Mayor and City Council

Technical Capabilities
Active 911

Public Education and Outreach
Morris County, Daingerfield, Lone Star, Naples, and Omaha all have Websites
City of Daingerfield, Lone Star and Naples have Facebook pages
Radio and Newspaper

Financial Capabilities
General Budgeting
FEMA Mitigation Funding
Other State and Federal Funding

Morris County, the Cities of Daingerfield, Lone Star, Naples, and Omaha are dedicated to expanding and improving these capabilities as new needs are recognized to reduce risks from natural hazards. Morris County and all jurisdictions in this plan have the ability to expand/improve their capabilities under the direction of the County Judge and City Mayors along with the City Councils, Commissioners Court, and all support staff. Morris County has an Emergency

Management Coordinator that supports the unincorporated area of Morris County as well as the jurisdictions of Daingerfield, Lone Star, Naples, and Omaha. The Emergency Management Coordinator is a great support for the County in identifying and mitigating the effects of natural hazards in Morris County. With the assistance of the Morris County Emergency Management Coordinator, the smaller jurisdictions of Daingerfield, Lone Star, Naples, and Omaha will have the ability to expand and improve their capabilities to achieve mitigation.

Federal Government Mitigation Funding Sources

The FEMA Region 6 Texas Mitigation Assistance Resource Guide provides state, territory, and local officials with a wide array of potential mitigation funding resources. These resources include grants, loans, technical assistance, and in-kind services from federal, state, territory, and private sources. Each resource includes information about the program, eligibility requirements, cost sharing, and an example of program use, if available. The Guides also align the resource with the National Mitigation Framework core capability and the National Disaster Recovery Framework support function.

Federal Emergency Management Agency (FEMA) Programs

Program	Details
Flood Mitigation Assistance Program (FMA)	Provides funding to implement measures to reduce or eliminate the long-term risk of flood damage.
Hazard Mitigation Grant Program (HMGP)	Provides grants to implement long-term hazard mitigation measures after a major disaster declaration.
National Flood Insurance Program (NFIP)	Enables property owners to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages.
Fire Management Assistance Grants Program (FMAG)	Provides equipment and supplies purchases, overtime labor costs, temporary repairs of damage from firefighting activities, emergency work, evacuations and sheltering, search and rescue, mobilization, and demobilization.
Building Resilient Infrastructure and Communities (BRIC)	Building Resilient Infrastructure and Communities (BRIC) will support states, local communities, tribes, and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program.
Emergency Management Performance Grant (EMPG)	Helps community programs implement the National Preparedness System by supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness with an overall goal of securing and creating a resilient nation.

Environmental Protection Agency (EPA)

Program	Details
Clean Water Act Section 319 Grants	Grants for water source management programs including technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and regulation. Funds are provided only to designated state and tribal agencies
Clean Water State Revolving Funds	State grants to capitalize loan funds. States make loans to communities, individuals, and others for high-priority water-quality activities.
Wetland Program Development Grants	Funds for projects that promote research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction, and elimination of water pollution.

Targeted Watersheds Grants Program	Established in 2003, the Targeted Watersheds Grant program is designed to encourage successful community-based approaches and management techniques to protect and restore the nation's watersheds. Managed by the Environmental Protection Agency.

Floodplain, Wetland and Watershed Protection Programs

Program	Details
USACE Planning Assistance to States (PAS)	Fund plans for the development and conservation of water resources, dam safety, flood damage reduction and floodplain management. 50% non-federal match.
USACE Flood Plain Management Services (FPMS)	Technical support for effective floodplain management.
Texas Silver Jackets	Under the National Flood Risk Management Program, it promotes agency collaboration and coordination with interagency, state-led flood risk and multiple hazard management teams. Provides resources/tools for supporting information sharing and networking, and to promote flood risk awareness efforts. actions to reduce risk.
USACE Environmental Laboratory	Guidance for implementing environmental programs such as ecosystem restoration and reuse of dredged materials.
U.S. Fish & Wildlife Service Coastal Wetlands Conservation Grant Program	Matching grants to states for acquisition, restoration, management, or enhancement of coastal wetlands.
U.S. Fish & Wildlife Service Partners for Fish and Wildlife Program	Program that provides financial and technical assistance to private landowners interested in restoring degraded wildlife habitat.

Office of Housing and Urban Development (HUD)

Program	Details
Community Development Block Grants (CDBG) - DR	Grants to develop viable communities, principally for low- and moderate-income people. CDBG funds are available through the Disaster Recovery Initiative. Disaster funds are contingent upon Presidential disaster declaration.
Community Development Block Grants (CDBG) – Mitigation (MIT)	This unique program represents a significant opportunity for eligible grantees – those affected by recent disasters -- to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses by: increasing resilience to disasters, and reducing or eliminating the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship by lessening the impact of future disasters.
Disaster Recovery Assistance	Disaster relief and recovery assistance for individuals in the form of special mortgage financing for rehabilitation of impacted homes.
Neighborhood Stabilization Program	Funding to State and local governments and non-profits for the purchase and rehabilitation of foreclosed and vacant property in order to renew neighborhoods devastated by the economic crisis.

Bureau of Land Management (BLM)

Program	Details
Community Assistance and Protection Program	Focuses on mitigation/prevention, education, and outreach. National Fire Prevention and Education teams are sent to areas across the country at-risk for wildland fire to work with local residents.
Firewise Communities Program	Effort to involve homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire before a fire starts.

U.S. Department of Agriculture (USDA)

Program	Details
USDA Forest Service Economic Action Program	Funds for preparation of Fire Safe plans to reduce fire hazards and utilize byproducts of fuels management activities in a valued fashion. 80% of the total cost of the project may be covered.
USDA Natural Resources Conservation Service Emergency Watershed Protection Support	Funds for implementing emergency measures in watersheds in order to relieve imminent hazards to life and property created by a natural disaster.
USDA Natural Resources Conservation Service Watershed Protection and Flood Prevention	This program provides for cooperation between the Federal government and the states and their political subdivisions to work together to prevent erosion, floodwater and sediment damage, to further the conservation development, use and disposal of water, and to further the conservation and proper use of land in authorized watersheds.

Health and Economic Agencies

Program	Details
Department of Health & Human Services Disaster Assistance for State Units on Aging (SUAs)	Provide disaster relief funds to those SUAs and tribal organizations who are currently receiving a grant under Title VI of the Older Americans Act. For areas designated a Disaster Declaration issued by the President.
Economic Development Administration (EDA) Economic Development Administration	Grants that support public works, economic adjustment assistance, and planning. Certain funds allocated for locations recently hit by major disasters. The maximum investment rate shall not exceed 50% of the project cost.
U.S. Small Business Administration Small Business Administration Loan Program	Low-interest, fixed rate loans to small businesses for the purpose of implementing mitigation measures. Also available for disaster damaged property. Must meet SBA approved credit rating.

Corporation for National and Community Service (CNCS)

Program	Details
AmeriCorps Senior Corps Social Innovation Fund Volunteer Generation Fund	The nation's largest grant-maker for service and volunteering plays a critical role in strengthening America's nonprofit sector and addressing the nation's challenges through service.

Research Grants

Program	Details
National Science Foundation (NSF) Decision, Risk, and Management Sciences Program (DRMS)	Grants for small-scale, exploratory, high-risk research having a severe urgency with regard to natural or anthropogenic disasters and similar unanticipated events.
U.S. Geological Survey (USGS) National Earthquake Hazards Reduction Program	The purpose of NEHRP is to provide products for earthquake loss reduction to the public and private sectors by carrying out research on earthquake occurrence and effects. Communities with population under 20,000.

Texas Water Development Board

Program	Details
FEMA Flood Mitigation Assistance Program (FMA)	As described under federal programs, the State manages grants to subgrantees for planning or project assistance to communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other insurable structures under the National Flood Insurance Program.
Flood Protection Planning Program	Planning assistance to communities in evaluation of structural and nonstructural solutions to flooding problems, including early flood warning systems and flood response plans.
Drinking Water State Revolving Fund	Below market, fixed interest rate loans. Principal forgiveness for qualifying disadvantaged, green, very small systems, and urgent need projects.
Rural Water Assistance Fund	Long-term, fixed interest rate loans that provide small, rural water utilities with low-cost, long-term financing for the planning, design acquisition, and construction of water and wastewater projects.
State Participation Program – Regional Water and Wastewater Facilities	Long-term, fixed interest rate financing through temporary TWDB ownership interest in a regional facility.
State Water Implementation Fund for Texas (SWIFT)	Flexible financing options: low-interest loans, deferred loans, or temporary TWDB ownership interest.
Economically Distressed Areas Program	Provides financial assistance for the planning, design, acquisition, and construction of water and wastewater projects in economically distressed areas where service is unavailable or is inadequate to meet state standards.
Agricultural Water Conservation Grants	Funding for conservation projects or programs.
Agricultural Water Conservation Loans	Funding for conservation projects or conservation programs as outlined in Agricultural Water Conservation Grants above.
Groundwater Conservation District Loan Program	Finance the startup costs (salaries and payroll taxes, utilities, travel, insurance, building and office leases, office supplies and furniture, telephone and computer equipment, and legal and professional fees) of groundwater conservation districts.
Regional Water Planning Group Grants Program	Planning activities for the long-term (50-year) water supply needs of Texas.
Regional Facility Planning Grant Program	Studies to evaluate and recommend the most feasible alternatives to meet regional (two or more participating entities or service areas) water supply and wastewater facility needs, estimate the costs associated with implementing the recommendations, and identify any institutional arrangements that may be necessary to provide regional water supply and wastewater services.

Water Research Grant Program	Water research that addresses one of the Texas Water Development Board's designated research topics published in its most recent request for proposals.

Texas General Land Office (GLO)

Program	Details
Natural Resources Damage Assessment (NRDA)	Natural resource trustees are the designated federal, state, and tribal agencies who are responsible for the natural resources impacted by an oil spill or hazardous substance release. https://tpwd.texas.gov/landwater/water/environconcerns/damage_assessment

Texas Department of Agriculture

Program	Details
CDBG Program	TDA administers the Community Development Block Grant for Rural Texas. The primary objective of the CDBG is to develop viable communities by providing decent housing and suitable living environments and expanding economic opportunities principally for people of low- to moderate- income.
Agricultural Management Assistance (AMA)	Program provides financial and technical assistance to agricultural producers to voluntarily address issues such as water management, water quality, and erosion control by incorporating conservation methods into their farming operations.
Agricultural Water Enhancement Program (AWEP)	The Agricultural Water Enhancement Program is a voluntary conservation initiative that provides financial and technical assistance to agricultural producers to implement water enhancement activities on agricultural land to conserve surface and ground water and improve water quality.
Conservation Innovation Grants (CIG)	Voluntary program intended to stimulate the development and adoption of innovative conservation approaches and technologies while leveraging federal investment in environmental enhancement and protection, in conjunction with agricultural production.
Environmental Quality Incentives Program (EQIP)	Voluntary program that provides financial and technical assistance to agricultural producers through contracts up to a maximum term of ten years.
Wildlife Habitat Incentive Program (WHIP)	Voluntary program for conservation-minded landowners who want to develop and improve wildlife habitat on agricultural land, nonindustrial private forest land, and tribal land.

Texas Department of Housing and Community Affairs

Program	Details
HOME Program	The program goal is to expand in rural areas the supply of decent, safe, affordable housing and strengthen public-private housing partnerships between units of general local governments, public housing authorities, nonprofits, and for-profit entities. Funding has been set aside funding for Disaster Relief and Persons with Disabilities, among others.

Texas Commission on Environmental Quality (TCEQ)

Program	Details
Nonpoint Source Grant Program	The TCEQ and the Texas State Soil and Water Conservation Board (TSSWCB) administer federal grants for activities that prevent or reduce nonpoint source pollution. Grants are awarded annually and fund projects for up to three years. TCEQ usually solicits grants in the summer of each year. Opportunities and instructions for how to apply are published on the web site below. The grants are made available through a federal program authorized under §319 of the Clean Water Act (CWA).
American Recovery and Reinvestment Act (ARRA)	State-managed program utilizing federal funding, ARRA provided significant funding for states to finance high priority water infrastructure projects through a $2 billion appropriation to the DWSRF (see below) program and a $4 billion appropriation to the CWSRF (see below) program. EPA's CWSRF & DWSRF ARRA Implementation webpage provides information on the status of ARRA implementation as well as guidance and resources for states and other stakeholders.
Clean Water State Revolving Fund	Provides attractive, low-cost funding for projects that improve water quality, renew wastewater infrastructure, and support local economies. The independent, revolving loan funds all 50 states and Puerto Rico to administer the SRF program, providing financial assistance to local communities. https://www.epa.gov/cwsrf
Drinking Water State Revolving Fund (DWSRF)	The Safe Drinking Water Act, through the DWSRF, makes funds available to drinking water systems to finance infrastructure improvements. The program also emphasizes providing funds to small and disadvantaged communities and to programs that encourage pollution prevention as a tool for ensuring safe drinking water.

SECTION IV: Mitigation Goals and Strategy

Mitigation Plan Goals

The Morris County Mitigation Action Plan goals describe the direction that Morris County agencies, organizations, and citizenry can take to minimize the impacts of natural hazards. Specific recommendations are outlined in the action items. These goals help guide direction of future activities aimed at reducing risk and preventing loss from natural hazards.

Goal #1: Protect Life and Property

- Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other properties more resistant to natural hazards.
- Improve hazard assessment information to make recommendations for discouraging new development in areas vulnerable to natural hazards.

Goal #2: Public Awareness

- Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.
- Provide information on tools, and funding resources to assist in implementing mitigation activities.

Goal #3: Natural Systems

- Preserve, rehabilitate, and enhance natural systems to serve natural hazard mitigation functions.

Goal #4: Partnerships and Implementation

- Encourage leadership within public and private sector organizations to prioritize and implement local, county, and regional hazard mitigation activities.

Goal #5: Emergency Services

- Establish policy to ensure mitigation projects for critical facilities, services, and infrastructure.
- Strengthening emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, and businesses.
- Integrate natural hazard mitigation activities with emergency operation plans and procedures.

Plan Update Mitigation Strategy:
Many of the previous goals and actions were never acted on and some of the old actions are no longer valid. This updated plan represents the most current data available regarding actions needed to reduce loss of life and property through mitigation. The five-year update is seen as an opportunity to set actions in place that are current, valid, and obtainable.

- Added language reflects a desire to see that the Plan is acted upon in a measured fashion with at least annual meetings being held to monitor overall action priorities and progress.
- No natural event has occurred since the original plan that would alter the current plan's prioritization.
- There have been no new developments in the county or jurisdictions that would alter vulnerability. Morris County has experienced a 3.7% decline in population since 2010.
- There have been no changes politically or financially that would impact the plan's development.

Morris County recognizes the importance of dedicated involvement regarding the integration of the plan into existing county and participating jurisdictions plans and budgets and codes. Morris County has initiated a proactive course of action that includes annual reviews and reports to the Morris County Commissioners Court and the city councils of Daingerfield, Lone Star, Naples, and Omaha.

The presiding Morris County Judge or his/her appointed representative will maintain a schedule to ensure that the plan is addressed and updated in a timely manner.

The annual meetings will involve the gathering of hazard related data from the previous year and discussion of progress made toward action item implementation.

The HMAP Steering Committee will evaluate the plan to assess whether significant changes have occurred in the premises upon which the plan was developed such as the following:

- Changes in data sources and/or methodology used to determine vulnerabilities and loss estimates, in terms of quality and availability.
- changes in federal or state plans that could affect the continued implementation of any of the mitigation actions.
- the identification of new hazards requiring new mitigation actions.
- changes in community perception relative to specific hazards

In addition to these functions, the HMAP Steering Committee will work to educate and involve the public in hazard mitigation activities and to oversee the incorporation of this plan into future planning and public policy documents as these are updated or developed. The incorporation of this plan into other planning instruments will serve as an additional metric for success. This plan will be evaluated based on implementation of action items, the incorporation of mitigation principles into future public policy, improved public safety, and the overall reduction of losses for Morris County and the jurisdictions of Daingerfield, Lone Star, Naples, and Omaha.

Method of Prioritization: Actions were prioritized using the **STAPLE+E** criteria. The actions do not adversely affect a particular segment of the population or cause relocation of lower income people. They provide long-term reduction of losses and have minimal secondary adverse impacts. They do not have adverse effects on the environment, are consistent with the community's environmental goals, and have mitigation benefits while they are environmentally sound.

S – Social	Mitigation actions are acceptable to the community if they do not adversely affect a particular segment of the population, do not cause relocation of lower income people, and if they are compatible with the community's social and cultural values.
T – Technical	Mitigation actions are technically most effective if they provide long-term reduction of losses and have minimal secondary adverse impacts.
A – Administrative	Mitigation actions are easier to implement if the jurisdiction has the necessary staffing and funding.
P – Political	Mitigation actions can truly be successful if all stakeholders have been offered an opportunity to participate in the planning process and if there is public support for the action.
L – Legal	It is critical that the jurisdiction or implementing agency have the legal authority to implement and enforce a mitigation action.
E – Economic	Budget constraints can significantly deter the implementation of mitigation actions. Hence, it is important to evaluate whether an action is cost-effective, as determined by a cost benefit review, and possible to fund.
E - Environmental	Sustainable mitigation actions that do not have an adverse effect on the environment, which comply with Federal, State, and local environmental regulations, and that are consistent with the community's environmental goals, have mitigation benefits while being environmentally sound.

Unincorporated Morris County Actions 2017			
HAZARD	ACTION	DISPOSTION	EXPLANATION
FLOOD	Develop and implement the Turn Around, Don't Drown Program	Not complete	Continuing in new plan
FLOOD	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.	Not complete	Continuing in new plan
TORNADO	Develop and implement a public education program that will provide the public with understanding of their risk to Tornado events and the mitigation methods to protect themselves, their family, and their property.	Not complete	Continuing in new plan
TORNADO	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.	Not complete	Continuing in new plan
THUNDERSTORM WIND	Provide a community awareness campaign concerning the risks and consequences of windstorms. By educating the public about High winds loss of life and property may be mitigated as they take steps to secure their property and respond to warning.	Not complete	Continuing in new plan
THUNDERSTORM WIND	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.	Not complete	Continuing in new plan
WINTER STORM	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.	Not complete	Continuing in new plan
WINTER STORM	Mitigate protecting power lines from the impacts of winter storms by establishing standards for all utilities regarding tree pruning around lines.	Not complete	Continuing in new plan
HAILSTORM	Install hail resistant film on the windows of critical facilities.	Not complete	Continuing in new plan
HAILSTORM	Conduct a workshop for residents about the prevalence of hailstorms and how to protect your home and property from hail damage.	Not complete	Continuing in new plan
DROUGHT	Conduct Xeriscaping and water conservation workshops for the city.	Not complete	Continuing in new plan
DROUGHT	Replace municipal appliances or equipment with water saving parts as old ones wear out.	Not complete	Continuing in new plan
EXTREME HEAT	Provide workshops on how to mitigate infrastructure from the effects of extreme heat.	Not complete	Continuing in new plan
EXTREME HEAT	Develop and implement new cooling centers and advertise their locations for extreme heat events in existing, air-conditioned structures such as churches and county facilities.	Not complete	Continuing in new plan
WILDFIRE	Conduct a wildfire education program stressing the dangers of trash burning to help prevent wildfires	Not complete	Continuing in new plan
WILDFIRE	Purchase Emergency mobile generators to use with emergency equipment during power outages.	Not complete	Continuing in new plan

Comprehensive Range of Specific Mitigation Actions Tables

The comprehensive range of specific mitigation actions and projects are listed below. A cost benefit review was performed to help decide which action items are feasible. The cost estimate and funding source are listed below. A cost benefit analysis will be completed prior to the submission of any application to FEMA. Priorities listed below are defined as:

Priority	
Low	8+ years
Medium	4-7 years
High	1-3 years

Estimated Cost	
Low	0-$10,000
Medium	$10,000-$25,000
High	$25,000 +

Unincorporated Morris County

NOTE: All *the Unincorporated Morris County projects are subject to availability of federal and local funding as well as availability of local staff to administer the project.*

Morris County Drought Action #1	Conduct Xeriscaping and water conservation workshops for the county.
Mitigation Goal/Objective	Goal 2 Public Awareness; Goal 3 Natural Systems; Goal 4 Partnerships and Implementation
Priority	Medium
Funding Source(s)	Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	5 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	Using drought resistant plants can help curtail excessive water usage.

Morris County Drought Action #2	Replace county appliances or equipment with water saving parts as old ones wear out.
Mitigation Goal/Objective	Goal 1 Protecting Life and Property
Priority	Medium
Funding Source(s)	Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	5 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	This will conserve water and set examples for the residents.

Morris County Extreme Heat Action #1	Provide workshops on how to mitigate infrastructure from the effects of extreme heat.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	Medium
Funding Source(s)	Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	5 years
Effect on New Buildings	The workshop would contain information about insulation.
Effect on Existing Buildings	The workshop would contain information about insulation.
Comments:	

Morris County Extreme Heat Action #2	Develop and implement new cooling centers and advertise their locations for extreme heat events in existing, air-conditioned structures such as churches and county facilities.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 4 Partnership and Implementation; Goal 5 Emergency Services
Priority	Medium
Funding Source(s)	Morris County Annual Budget, FEMA Grant
Estimated Cost	10-25k
Responsible Agency	Morris County EMC
Estimated Completion Time	5 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	This action will be more critical as the earth grows warmer.

Morris County Flood Action #1	Develop and implement the Turn Around, Don't Drown Program.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	State of Texas, Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	This program is known to save lives.

Morris County Flood Action #2	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	FEMA Grant/Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	2 years
Effect on New Buildings	Protection from sewage flooding and water contamination
Effect on Existing Buildings	Protection from sewage flooding and water contamination
Comments:	

Morris County Flood Action #3	Develop a flood damage prevention ordinance that includes making substantial improvements/substantial damage determinations requiring homeowners to obtain permits to bring buildings into compliance with floodplain management requirements.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	3 years
Effect on New Buildings	Constructed by methods/practices to minimize flood damage.
Effect on Existing Buildings	Improvements by methods/practices to minimize flood damage.
Comments:	

Morris County Hail Action #1	Install hail resistant film on the windows of critical facilities.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	5 years
Effect on New Buildings	Can protect new buildings from window damage from hail.
Effect on Existing Buildings	Can protect existing buildings from window damage from hail.
Comments:	

Morris County Hail Action #2	Conduct a workshop for residents about the prevalence of hailstorms and how to protect your home and property from hail damage.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	3 years
Effect on New Buildings	Knowledge could improve structures and their design.
Effect on Existing Buildings	Knowledge could improve structures and their design.
Comments:	Public education protects lives by providing tools needed to act.

Morris County Lightning Action #1	Install lightning arrestors on critical facilities and infrastructure.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants; County Annual Budget
Estimated Cost	10-25k
Responsible Agency	Morris County EMC
Estimated Completion Time	5 years
Effect on New Buildings	Could protect the structural integrity of the building
Effect on Existing Buildings	Could protect the structural integrity of the building
Comments:	

Morris County Thunderstorm Winds Action #1	Provide a community awareness campaign concerning the risks and consequences of windstorms.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	High
Funding Source(s)	Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	Educating the Public will help protect life and property

Morris County Tornado Action #1	Develop and implement a public education program that will provide an understanding of risks from Tornado events and the mitigation methods to protect themselves and property.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	2 years
Effect on New Buildings	This could help reduce damage by implementing ideas about home and business protection from tornadic winds.
Effect on Existing Buildings	This could help reduce damage by implementing ideas about home and business protection from tornadic winds
Comments:	

Morris County Tornado Action #2	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA Grant, County Annual Budget, fundraisers
Estimated Cost	10-25k
Responsible Agency	Morris County EMC
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	

Morris County Wildfire Action #1	Conduct a wildfire education program stressing the dangers of trash burning to help prevent wildfires.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	High
Funding Source(s)	Morris County Annual Budget
Estimated Cost	0-10k
Responsible Agency	Morris County EMC
Estimated Completion Time	3 years
Effect on New Buildings	Out of control trash burning can destroy a new building
Effect on Existing Buildings	Out of control trash burning can destroy an existing building
Comments:	Programs such as this can empower citizens to take precautionary action.

Morris County Wildfire Action #2	Purchase Emergency mobile generators to use with emergency equipment during power outages.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	Morris County Annual Budget, FEMA Grant
Estimated Cost	10-25k
Responsible Agency	Morris County EMC
Estimated Completion Time	5 years
Effect on New Buildings	Generators provide power to equipment utilized in fighting fires.
Effect on Existing Buildings	Generators provide power to equipment utilized in fighting fires.
Comments:	

Morris County Winter Storms Action #1	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.
Mitigation Goal/Objective	Goal #1: Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grant, Morris County Annual Budget
Estimated Cost	10-25k
Responsible Agency	Morris County EMC
Estimated Completion Time	5 years
Effect on New Buildings	Protection from sewage flooding and water contamination
Effect on Existing Buildings	Protection from sewage flooding and water contamination
Comments:	Generators keep critical equipment operational during power outages.

Morris County Winter Storms Action #2	Mitigate protecting power lines from the impacts of winter storms by establishing standards for all utilities regarding tree pruning around lines.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 3 Natural Systems
Priority	Medium
Funding Source(s)	Morris County Annual Budget
Estimated Cost	10-25k
Responsible Agency	Morris County EMC
Estimated Completion Time	5 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	Keeping roads and ditches free of limbs and debris opens transportation, could reduce flash flooding, and prevents injury

Daingerfield Mitigation Actions 2017			
HAZARD	ACTION	DISPOSTION	EXPLANATION
FLOOD	Bi-Annual storm drainage cleaning program to be implemented to keep debris from hampering drainage	On-Going	Continuing in new plan
FLOOD	Purchase emergency mobile generators for critical facility use during power outages.	On-going	Continuing in new Plan
TORNADO	Develop and implement the Texas Individual Tornado Safe Room Program	Not Complete	Continuing in new Plan
TORNADO	Develop and implement a public education program that will provide the public with understanding of their risk to Tornado events and the mitigation methods to protect themselves, their family, and their property.	Not complete	Continuing in new plan
THUNDERSTORM WIND	Provide public workshops and information regarding mitigating homes against windstorms	Not complete	Continuing in new plan
THUNDERSTORM WIND	Purchase emergency mobile generators for critical facility use during power outages.	On-going	Continuing in new plan
WINTER STORM	Conduct workshops regarding how to mitigate your home from damage of winter storms.	Not complete	Remove from plan
WINTER STORM	Purchase emergency mobile generators for critical facility use during power outages.	On-going	Continuing in new plan
HAILSTORM	Install hail resistant film on the windows of critical facilities	On-going	Continuing in new plan
HAILSTORM	Conduct a workshop for residents about the prevalence of hailstorms and how to protect your home and property from hail damage.	Not complete	Continuing in new plan
DROUGHT	Conduct Xeriscaping and water conservation workshops for the city.	Not complete	Continuing in new plan
DROUGHT	Develop and implement a drought contingency plan to include water conservation, and mandatory water rationing.	On going	Continuing in new plan
EXTREME HEAT	Conduct fan drives for low-income and elderly who cannot afford air conditioning	Not complete	Continuing in new plan
EXTREME HEAT	Provide workshops on how to mitigate infrastructure from the effects of extreme heat.	Not complete	Continuing in new plan
WILDFIRE	Develop and implement a building vegetation clearance program.	Not complete	Continuing in new plan
WILDFIRE	Conduct a wildfire education program stressing the dangers of trash burning to help prevent wildfires.	Not complete	Continuing in new plan

Daingerfield

NOTE: All Daingerfield projects are subject to availability of federal and local funding as well as availability of local staff to administer the project.

Daingerfield Drought Action #1	Conduct Xeriscaping and water conservation workshops for the city.
Mitigation Goal/Objective	Goal 2 Public Awareness; Goal 3 Natural Systems; Goal 4 Partnerships and Implementation
Priority	Medium
Funding Source(s)	Daingerfield Annual Budget
Estimated Cost	0-10k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	5 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	Using drought resistant plants help curtail excessive water usage

Daingerfield Drought Action #2	Develop and implement a drought contingency plan to include water conservation, and mandatory water rationing.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Natural Systems; Goal 4 Partnerships and Implementation
Priority	High
Funding Source(s)	Daingerfield Annual Budget
Estimated Cost	0-10k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	3 years
Effect on New Buildings	
Effect on Existing Buildings	
Comments:	

Daingerfield Extreme Heat Action #1	Conduct fan drives for low-income and elderly who cannot afford air conditioning.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 4 Partnerships and Implementation
Priority	High
Funding Source(s)	Daingerfield Annual Budget
Estimated Cost	0-10k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	

Daingerfield Extreme Heat Action #2	Provide workshops on how to mitigate infrastructure from the effects of extreme heat.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	Low
Funding Source(s)	Daingerfield Annual Budget
Estimated Cost	0-10k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	8 years
Effect on New Buildings	The workshop would contain information about insulation and roofing that could lead to changes made to new construction.
Effect on Existing Buildings	The workshop would contain information about insulation roofing that could lead to additional insolation or new roofing added to existing buildings.
Comments:	

Daingerfield Flood Action #1	Bi-Annual storm drainage cleaning program to be implemented to keep debris from hampering drainage.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA Grants, General Budget
Estimated Cost	10-25k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	3 years
Effect on New Buildings	This could protect buildings from flash flooding.
Effect on Existing Buildings	This could protect buildings from flash flooding.
Comments:	

Daingerfield Flood Action #2	Purchase emergency mobile generators for critical facility use during power outages.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants, General Budget
Estimated Cost	10-25k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	5 years
Effect on New Buildings	Protect buildings from sewage flooding and water contamination.
Effect on Existing Buildings	Protect buildings from sewage flooding and water contamination.
Comments:	

Daingerfield Flood Action #3	Develop a flood damage prevention ordinance that includes making substantial improvements/substantial damage determinations requiring homeowners to obtain permits to bring buildings into compliance with floodplain management requirements.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA Grant/City Budget
Estimated Cost	0-10k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	3 years
Effect on New Buildings	Constructed by methods/practices to minimize flood damage.
Effect on Existing Buildings	Improvements by methods/practices to minimize flood damage.
Comments:	

Daingerfield Hail Action #1	Install hail resistant film on the windows of critical facilities.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grant/Daingerfield Annual Budget
Estimated Cost	0-10k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	5 years
Effect on New Buildings	
Effect on Existing Buildings	This will strengthen existing buildings' resiliency to this hazard.
Comments:	

Daingerfield Hail Action #2	Conduct a workshop for residents about the prevalence of hailstorms and how to protect your home and property from hail damage.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	Daingerfield Annual Budget
Estimated Cost	0-10k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	3 years
Effect on New Buildings	Knowledge gained from workshops can translate into actions that improve structures and their design.
Effect on Existing Buildings	Knowledge gained from workshops can translate into actions that improve structures and their design.
Comments:	Public awareness and education can minimize loss and protect lives by giving citizens the tools needed to act.

Daingerfield Lightning Action #1	Install lightning arrestors on critical facilities and infrastructure.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants; City Annual Budget
Estimated Cost	10-25k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	5 years
Effect on New Buildings	Could protect the structural integrity of the building
Effect on Existing Buildings	Could protect the structural integrity of the building
Comments:	

Daingerfield Thunderstorm Winds Action #1	Purchase emergency mobile generators for critical facility use during power outages.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants, fundraisers, Daingerfield Annual Budget
Estimated Cost	10-25k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	5 years
Effect on New Buildings	Keeping power in critical facilities could protect backed up wastewater, etc.
Effect on Existing Buildings	Keeping power in critical facilities could protect backed up wastewater, etc.
Comments:	It is important during times of stress and outages that critical facilities such as waste treatment plants and water supplies remain operational.

Daingerfield Tornado Action #1	Develop and implement the Texas Individual Tornado Safe Room Program
Mitigation Goal/Objective	Goal 1: Protect life and property
Priority	Medium
Funding Source(s)	FEMA Grant, City Funds, Fund Raiser
Estimated Cost	10-25k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	5 years
Effect on New Buildings	No effect
Effect on Existing Buildings	No effect
Comments:	Safe rooms in homes save lives by protecting individuals from high winds and flying debris.

Daingerfield Tornado Action #2	Implement a public education program to provide citizens with information regarding their risk from a Tornado event and the mitigation methods to protect themselves and their property.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	Daingerfield Annual Budget
Estimated Cost	0-10k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	2 years
Effect on New Buildings	Citizens gain knowledge that could help them protect new buildings from tornadic winds.
Effect on Existing Buildings	Citizens gain knowledge that could help them protect existing buildings from tornadic winds.
Comments:	

Daingerfield Wildfire Action #1	Develop and implement a building vegetation clearance program.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 4 Partnerships and Implementation
Priority	Medium
Funding Source(s)	Daingerfield Annual Budget
Estimated Cost	10-25k
Responsible Agency	Daingerfield Public Works
Estimated Completion Time	5 years
Effect on New Buildings	This would protect new buildings from Wildfire/Urban Interface
Effect on Existing Buildings	This would protect existing buildings from Wildfire/Urban Interface
Comments:	Much can be accomplished when the private and public sector joins hands

Daingerfield Wildfire Action #2	Conduct a wildfire education program stressing the dangers of trash burning to help prevent wildfires.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	High
Funding Source(s)	Daingerfield Annual Budget
Estimated Cost	0-10k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	3 years
Effect on New Buildings	Out of control trash burning can destroy a new building
Effect on Existing Buildings	Out of control trash burning can destroy an existing building.
Comments:	Programs such as this can empower citizens to take precautionary action.

Daingerfield Winter Storms Action #1	Conduct workshops regarding how to mitigate your home from damage of winter storms.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public awareness
Priority	High
Funding Source(s)	Daingerfield Annual Budget
Estimated Cost	0-10k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	3 years
Effect on New Buildings	Education empowers citizens and businesses to act.
Effect on Existing Buildings	Education empowers citizens and businesses to act.
Comments:	

Daingerfield Winter Storms Action #2	Purchase emergency mobile generators for critical facility use during power outages.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants, Daingerfield Annual Budget, Fundraisers
Estimated Cost	10-25k
Responsible Agency	Daingerfield City Manager
Estimated Completion Time	5 years
Effect on New Buildings	Protection from sewage flooding and water contamination
Effect on Existing Buildings	Protection from sewage flooding and water contamination
Comments:	It is important during times of stress and outages that critical facilities such as waste treatment plants and water supplies remain operational.

Lone Star Mitigation Actions 2017			
HAZARD	**ACTION**	**DISPOSTION**	**EXPLANATION**
FLOOD	Develop and implement the Turn Around, Don't Drown Program	Not complete	Continuing in new plan
FLOOD	Widen and deepen ditches to allow rainwater run-off to work more efficiently.	Not complete	Continuing in new plan
TORNADO	Develop and implement the Texas Individual Tornado Safe Room Program	Not complete	Continuing in new plan
TORNADO	Develop and implement a public education program that will provide the public with understanding of their risk to Tornado events and the mitigation methods to protect themselves, their family, and their property.	Not complete	Continuing in new plan
TORNADO	Install a reliable siren system to warn the citizens of Lone Star when weather conditions regarding tornadoes require immediate action.	Not complete	Continuing in new plan
THUNDERSTORM WIND	Provide public workshops and information regarding mitigating homes against windstorms	Not complete	Continuing in new plan
THUNDERSTORM WIND	Purchase emergency mobile generators for critical facility use during power outages.	Not complete	Continuing in new plan
WINTER STORM	Conduct workshops regarding how to mitigate your home from damage of winter storms.	Not complete	Continuing in new plan
WINTER STORM	Develop and implement a pre-emptive strategy for removing dead limbs and overhangs that might fall during winter storms.	Not complete	Continuing in new plan
HAILSTORM	Purchase emergency mobile generators for critical facility use during power outages.	Not complete	Continuing in new plan
HAILSTORM	Conduct a workshop for residents about the prevalence of hailstorms and how to protect your home and property from hail damage.	Not complete	Continuing in new plan
DROUGHT	Conduct workshops on conserving water, xeriscaping and managing drought impacts	Not complete	Continuing in new plan
DROUGHT	Replace municipal appliances or equipment with water saving parts as old ones wear out.	Not complete	Continuing in new plan
EXTREME HEAT	Develop and implement new cooling centers and advertise their locations for extreme heat events in existing, air-conditioned structures such as churches and other public facilities. This would constitute a small investment and provide a valuable service to people during episodes of extreme heat.	Not complete	Continuing in new plan
EXTREME HEAT	Provide workshops on how to mitigate infrastructure from the effects of extreme heat.	Not complete	Continuing in new plan
WILDFIRE	Purchase emergency mobile generators for critical facility use during power outages.	Not complete	Continuing in new plan
WILDFIRE	Conduct a wildfire education program stressing the dangers of trash burning to help prevent wildfires.	Not complete	Continuing in new plan

Lone Star

NOTE: All *projects are subject to availability of federal and local funding as well as availability of local staff to administer the project.*

Lone Star Drought Action #1	Conduct workshops on conserving water, xeriscaping and managing drought impacts.
Mitigation Goal/Objective	Goal 2 Public Awareness; Goal 3 Natural Systems; Goal 4 Partnerships and Implementation
Priority	Medium
Funding Source(s)	Lone Star Annual Budget
Estimated Cost	0-10k
Responsible Agency	Lone Star Mayor
Estimated Completion Time	5 years
Effect on New Buildings	
Effect on Existing Buildings	
Comments:	Using drought resistant plants can help curtail excessive water usage.

Lone Star Drought Action #2	Replace municipal appliances or equipment with water saving parts as old ones wear out.
Mitigation Goal/Objective	Goal 1 Protecting Life and Property
Priority	Low
Funding Source(s)	FEAM Grant/Lone Star Annual Budget
Estimated Cost	0-10k
Responsible Agency	Lone Star Mayor
Estimated Completion Time	5 years
Effect on New Buildings	No effect
Effect on Existing Buildings	No effect
Comments:	This will conserve water and set examples for residents

Lone Star Extreme Heat Action #1	Develop and implement new cooling centers and advertise their locations in existing, air-conditioned structures.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 4 Partnership and Implementation; Goal 5 Emergency Services
Priority	Medium
Funding Source(s)	FEMA Grant, Lone Star Annual Budget
Estimated Cost	10-25k
Responsible Agency	Lone Star Mayor
Estimated Completion Time	5 years
Effect on New Buildings	No effect
Effect on Existing Buildings	No effect
Comments:	This action will be more critical as the earth grows warmer.

Lone Star Extreme Heat Action #2	Provide workshops on how to mitigate infrastructure from the effects of extreme heat.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	City Lone Star
Estimated Cost	0-10k
Responsible Agency	Lone Star Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Business and homeowners could learn ideas on protecting foundations.
Effect on Existing Buildings	Business and homeowners could learn ideas on protecting foundations.
Comments:	

Lone Star Flood Action #1	Develop and implement the Turn Around, Don't Drown Program.
Mitigation Goal/Objective	Goal #1 Protect Life and Property
Priority	High
Funding Source(s)	State of Texas, Lone Star Annual Budget
Estimated Cost	0-10k
Responsible Agency	Lone Star Public Works Department.
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	This program is known to save lives.

Lone Star Flood Action #2	Widen and deepen ditches to allow rainwater run-off to work more efficiently.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA Grant, Lone Star Annual Budget
Estimated Cost	10-25k
Responsible Agency	Lone Star Public Works Director
Estimated Completion Time	3 years
Effect on New Buildings	This could protect new buildings from flash flooding
Effect on Existing Buildings	This could protect existing buildings from flash flooding
Comments:	By widening ditches, especially in poor drainage areas, the likelihood of flooding is decreased.

Lone Star Flood Action #3	Develop a flood damage prevention ordinance that includes making substantial improvements/substantial damage determinations requiring homeowners to obtain permits to bring buildings into compliance with floodplain management requirements.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA Grant/City of Lone Star Annual Budget
Estimated Cost	0-10k
Responsible Agency	City of Lone Star Mayor
Estimated Completion Time	3 years
Effect on New Buildings	Constructed by methods/practices to minimize flood damage
Effect on Existing Buildings	Improvements by methods/practices to minimize flood damage
Comments:	

Lone Star Hail Action #1	Conduct a workshop for residents about the prevalence of hailstorms and how to protect your home and property from hail damage.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	Lone Star Annual Budget
Estimated Cost	0-10k
Responsible Agency	Lone Star Mayor
Estimated Completion Time	3 years
Effect on New Buildings	Knowledge gained from workshops can translate into actions that improve structures and their design.
Effect on Existing Buildings	Knowledge gained from workshops can translate into actions that improve structures and their design.
Comments:	Public awareness and education can minimize loss and protect lives by giving citizens the tools needed to act.

Lone Star Hail Action #2	Purchase emergency mobile generators for critical facility use during power outages.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants, Lone Star Annual Budget
Estimated Cost	10-25k
Responsible Agency	Lone Star Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Will protect new buildings from flooding and water contamination.
Effect on Existing Buildings	Will help protect existing buildings from flooding and water contamination.
Comments:	

Lone Star Lightning Action #1	Install and maintain surge protection on critical electronic equipment.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	Grants, Lone Star Annual Budget
Estimated Cost	0-10k
Responsible Agency	Lone Star Mayor
Estimated Completion Time	5 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	

Lone Star Thunderstorm Winds Action #1	Provide public workshops and information regarding mitigating homes against windstorms.
Mitigation Goal/Objective	Goal 1 Protects Life and Property
Priority	Medium
Funding Source(s)	Lone Star Annual Budget
Estimated Cost	0-10K
Responsible Agency	Lone Star Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Learning how to install wind resistant design can save money and lives.
Effect on Existing Buildings	Protecting existing structures by modification can save money and lives.
Comments:	

Lone Star Tornado Action #1	Develop and implement the Texas Individual Tornado Safe Room Program.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA Grant, Lone Star Annual Budget
Estimated Cost	0-10k
Responsible Agency	Lone Star Mayor
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	A safe room placed in a home or business will save lives.

Lone Star Tornado Action #2	Develop and implement a public education program that will provide the public with understanding of their risk to Tornado events and the mitigation method to protect themselves, their family, and their property.
Mitigation Goal/Objective	Goal 1 Public Awareness
Priority	High
Funding Source(s)	Lone Star Annual Budget
Estimated Cost	0-10k
Responsible Agency	Lone Star Fire Dept./EMC
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	Public Education can create citizen action.

Lone Star Tornado Action #3	Install a reliable siren system to warn the citizens of Lone Star when weather conditions regarding tornadoes require immediate action.
Mitigation Goal/Objective	Goal 1 Public Awareness
Priority	High
Funding Source(s)	FEMA Grant Money, Lone Star Annual Budget
Estimated Cost	25k +
Responsible Agency	Lone Star Mayor
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	There is no warning system available for the residents currently

Lone Star Wildfire Action #1	Conduct a wildfire education program stressing the dangers of trash burning to help prevent wildfires.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	High
Funding Source(s)	Lone Star Annual Budget
Estimated Cost	0-10k
Responsible Agency	Lone Star Mayor
Estimated Completion Time	3 years
Effect on New Buildings	Out of control trash burning can destroy a new building.
Effect on Existing Buildings	Out of control trash burning can destroy an existing building.
Comments:	Programs such as this can empower citizens to take precautionary action.

Lone Star Wildfire Action #2	Purchase emergency mobile generators for critical facility use during power outages.
Mitigation Goal/Objective	Goal #1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants, Lone Star Annual Budget fundraisers
Estimated Cost	Medium (10k-25k)
Responsible Agency	Lone Star City Mayor
Estimated Completion Time	5 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	

Lone Star Winter Storms Action #1	Develop and implement a pre-emptive strategy for removing dead limbs and overhangs that might fall during winter storms.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 4 Partnership and Implementation
Priority	Medium
Funding Source(s)	Lone Star Annual Budget
Estimated Cost	10-25k
Responsible Agency	Lone Star Public Works Director
Estimated Completion Time	5 years
Effect on New Buildings	This can protect new homes and businesses from power loss and damage from falling limbs.
Effect on Existing Buildings	This can protect existing homes and businesses from power loss and damage from falling limbs.
Comments:	

Lone Star Winter Storms Action #2	Conduct workshops regarding how to mitigate your home from damage of winter storms.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	Medium
Funding Source(s)	Lone Star Annual Budget
Estimated Cost	0-10K
Responsible Agency	Lone Star Public Works Director
Estimated Completion Time	5 years
Effect on New Buildings	Knowledge gained from these workshops could help mitigate new homes from the damages of winter storms
Effect on Existing Buildings	Knowledge gained from these workshops could help mitigate new homes from the damages of winter storms
Comments:	Public information plays a key role in mitigation

Naples Mitigation Actions 2017			
HAZARD	ACTION	DISPOSTION	EXPLANATION
FLOOD	Purchase emergency mobile generators for critical facilities use during power outages	Not complete	Continuing in new plan
FLOOD	Install permanent "Caution Road may Flood warning signs on roadways that flood.	Not complete	Continuing in new plan
TORNADO	Develop and implement a public education program that will provide the public with understanding of their risk to Tornado events and the mitigation methods to protect themselves, their family, and their property.	Not complete	Continuing in new plan
TORNADO	Develop and implement the Texas Individual Tornado Safe Room Program	Not complete	Continuing in new plan
THUNDERSTORM WIND	Provide a community awareness campaign concerning the risks and consequences of windstorms. By educating the public in High winds, loss of life and property may be mitigated as they take steps to secure their property and respond to warning.	Not complete	Continuing in new plan
THUNDERSTORM WIND	Require structures on temporary foundations to be securely anchored to permanent foundations.	Not complete	Continuing in new plan
WINTER STORM	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.	Not complete	Continuing in new plan
WINTER STORM	Develop and implement a pre-emptive strategy for removing dead limbs and overhangs that might fall during winter storms.	Not complete	Continuing in new plan
HAILSTORM	Install hail resistant film on the windows of critical facilities.	Not complete	Continuing in new plan
HAILSTORM	Purchase emergency mobile generators for critical facility use during power outages.	Not complete	Continuing in new plan
DROUGHT	Conduct Xeriscaping and water conservation workshops for the city.	Not complete	Continuing in new plan
DROUGHT	Develop and implement a drought contingency plan to include water conservation, and mandatory water rationing.	Not complete	Continuing in new plan
EXTREME HEAT	Conduct fan drives for low-income and elderly who cannot afford air conditioning.	Not complete	Continuing in new plan
EXTREME HEAT	Provide workshops on how to mitigate infrastructure from the effects of extreme heat.	Not complete	Continuing in new plan
WILDFIRE	Conduct a wildfire education program stressing the dangers of trash burning to help prevent wildfires	Not complete	Continuing in new plan
WILDFIRE	Purchase emergency mobile generators for critical facility use during power outages.	Not complete	Continuing in new plan

Naples

NOTE: All *projects are subject to availability of federal and local funding as well as availability of local staff to administer the project.*

Naples Drought Action #1	Conduct Xeriscaping and water conservation workshops for the city.
Mitigation Goal/Objective	Goal 2 Public Awareness; Goal 3 Natural Systems; Goal 4 Partnerships and Implementation
Priority	Medium
Funding Source(s)	Naples Annual Budget
Estimated Cost	0-10k
Responsible Agency	Naples Mayor
Estimated Completion Time	5 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	Using drought resistant plants can help curtail excessive water usage.

Naples Drought Action #2	Develop and implement a drought contingency plan to include water conservation, and mandatory water rationing.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Natural Systems; Goal 4 Partnerships and Implementation
Priority	High
Funding Source(s)	Naples Annual Budget
Estimated Cost	0-10k
Responsible Agency	Naples Mayor
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	

Naples Extreme Heat Action #2	Provide workshops on how to mitigate infrastructure from the effects of extreme heat.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	High
Funding Source(s)	City of Naples
Estimated Cost	0-10k
Responsible Agency	Naples Mayor
Estimated Completion Time	2 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	

Naples Flood Action #1	Purchase emergency mobile generators for critical facilities use during power outages.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants, Naples Annual Budget
Estimated Cost	10-25k
Responsible Agency	Naples Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Help protect new buildings from flooding and water contamination.
Effect on Existing Buildings	Help protect existing buildings from flooding and water contamination.
Comments:	It is important that critical facilities such as waste treatment plants and water supplies remain operational.

Naples Flood Action #2	Install permanent "Caution Road may Flood warning signs on roadways that flood.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	TX Dot, Lone Star Annual Budget
Estimated Cost	0-10k
Responsible Agency	Mayor of Naples
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	Signs make people more aware of Flooding Danger.

Naples Flood Action #3	Develop a flood damage prevention ordinance that includes making substantial improvements/substantial damage determinations requiring homeowners to obtain permits to bring buildings into compliance with floodplain management requirements.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA Grant/City of Naples Annual Budget
Estimated Cost	0-10k
Responsible Agency	City of Naples Mayor
Estimated Completion Time	3 years
Effect on New Buildings	Constructed by methods/practices to minimize flood damage.
Effect on Existing Buildings	Improvements by methods/practices to minimize flood damage.
Comments:	

Naples Hail Action #1	Install hail resistant film on the windows of critical facilities.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grant/Naples Annual Budget
Estimated Cost	0-10k
Responsible Agency	Naples Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Can protect new buildings from window damage from hail.
Effect on Existing Buildings	Can protect existing buildings from window damage from hail.
Comments:	

Naples Hail Action #2	Purchase emergency mobile generators for critical facility use during power outages.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants, Naples Annual Budget
Estimated Cost	10-25k
Responsible Agency	Naples City Council
Estimated Completion Time	5 years
Effect on New Buildings	Protection from sewage flooding and water contamination.
Effect on Existing Buildings	Protection from sewage flooding and water contamination.
Comments:	It is important during times of stress and outages that critical facilities such as waste treatment plants and water supplies remain operational.

Naples Lightning Action #1	Install lightning arrestors on critical facilities and infrastructure.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants; City Annual Budget
Estimated Cost	10-25k
Responsible Agency	City of Naples Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Could protect the structural integrity of the building
Effect on Existing Buildings	Could protect the structural integrity of the building
Comments:	

Naples Hail Action #1	Install hail resistant film on the windows of critical facilities.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grant/Naples Annual Budget
Estimated Cost	0-10k
Responsible Agency	Naples Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Can protect new buildings from window damage from hail.
Effect on Existing Buildings	Can protect existing buildings from window damage from hail.
Comments:	

Naples Hail Action #2	Purchase emergency mobile generators for critical facility use during power outages.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants, Naples Annual Budget
Estimated Cost	10-25k
Responsible Agency	Naples City Council
Estimated Completion Time	5 years
Effect on New Buildings	Protection from sewage flooding and water contamination.
Effect on Existing Buildings	Protection from sewage flooding and water contamination.
Comments:	It is important during times of stress and outages that critical facilities such as waste treatment plants and water supplies remain operational.

Naples Lightning Action #1	Install lightning arrestors on critical facilities and infrastructure.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants; City Annual Budget
Estimated Cost	10-25k
Responsible Agency	City of Naples Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Could protect the structural integrity of the building
Effect on Existing Buildings	Could protect the structural integrity of the building
Comments:	

Naples Thunderstorm Winds Action #1	Provide a community awareness campaign concerning the risks and consequences of windstorms. By educating the public in High winds, loss of life and property may be mitigated as they take steps to secure their property and respond to warning.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	High
Funding Source(s)	Naples Annual Budget
Estimated Cost	0-10k
Responsible Agency	Mayor of Naples
Estimated Completion Time	3 years
Effect on New Buildings	Knowledge gained from workshops can translate into actions that improve structures and their design.
Effect on Existing Buildings	N/A
Comments:	Educating the Public will help protect life and property

Naples Thunderstorm Winds Action #2	Require structures on temporary foundations to be securely anchored to permanent foundations.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	Naples Annual Budget
Estimated Cost	0-10k
Responsible Agency	Mayor of Naples
Estimated Completion Time	5 years
Effect on New Buildings	Protect new mobile homes from damage during high winds.
Effect on Existing Buildings	Protect existing mobile homes from damage during high winds.
Comments:	

Naples Tornado Action #1	Develop and implement a public education program that will provide the public with understanding of their risk to Tornado events and the mitigation methods to protect themselves their property.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	Naples Annual Budget
Estimated Cost	0-10k
Responsible Agency	Naples Mayor
Estimated Completion Time	2 years
Effect on New Buildings	This could help reduce damage by implementing ideas about home and business protection from tornadic winds.
Effect on Existing Buildings	This could help reduce damage by implementing ideas about home and business protection from tornadic winds.
Comments:	Educating the public is an integral part of mitigation.

Naples Tornado Action #2	Develop and implement the Texas Individual Tornado Safe Room Program.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA Grant, Naples Annual Budget
Estimated Cost	0-10k
Responsible Agency	Naples Mayor
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	A safe room placed in a home or business will save lives.

Naples Wildfire Action #1	Conduct a wildfire education program stressing the dangers of trash burning to help prevent wildfires.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	High
Funding Source(s)	City of Naples
Estimated Cost	0-10k
Responsible Agency	Naples Mayor
Estimated Completion Time	3 years
Effect on New Buildings	Out of control trash burning can destroy a new building
Effect on Existing Buildings	Out of control trash burning can destroy an existing building.
Comments:	Programs such as this can empower citizens to take precautionary action.

Naples Wildfire Action #2	Purchase emergency mobile generators for critical facility use during power outages.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants/General Budget
Estimated Cost	10-25k
Responsible Agency	Naples Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Generators can provide power to equipment utilized in fighting fires.
Effect on Existing Buildings	Generators can provide power to equipment utilized in fighting fires.
Comments:	It is important during times of outages that critical facilities such as waste treatment plants and water supplies remain operational.

Naples Winter Storms Action #1	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grant, Naples Annual Budget
Estimated Cost	10-25k
Responsible Agency	Naples Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Ensuring that wastewater facilities and pumps have power can help protect new buildings from flooding and water contamination.
Effect on Existing Buildings	Ensuring that wastewater facilities and pumps have power can help protect existing buildings from flooding and water contamination.
Comments:	Generators keep critical equipment operational during power outages.

Naples Winter Storms Action #2	Develop and implement a pre-emptive strategy for removing dead limbs and overhangs that might fall during winter storms.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 4 Partnership and Implementation
Priority	Medium
Funding Source(s)	Naples Annual Budget
Estimated Cost	10-25k
Responsible Agency	Mayor of Naples
Estimated Completion Time	5 years
Effect on New Buildings	Protection from power loss and damage from falling limbs.
Effect on Existing Buildings	Protection from power loss and damage from falling limbs.
Comments:	

Omaha Mitigation Actions 2017			
HAZARD	**ACTION**	**DISPOSTION**	**EXPLANATION**
FLOOD	Install permanent "Caution Road may Flood warning signs on roadways that flood.	Not complete	Continuing in new plan
FLOOD	Widen ditches to increase volume capacity of flash flood waters	Not complete	Continuing in new plan
TORNADO	Develop and implement the Texas Individual Tornado Safe Room Program	Not complete	Continuing in new plan
TORNADO	Develop and implement a public education program that will provide the public with understanding of their risk to Tornado events and the mitigation methods to protect themselves their property.	Not complete	Continuing in new plan
THUNDERSTORM WIND	Create and enforce a city ordinance requiring approved mobile home tie-downs.	Not complete	Continuing in new plan
THUNDERSTORM WIND	Provide public workshops and information regarding mitigating homes against windstorms.	Not complete	Continuing in new plan
WINTER STORM	Develop and implement a pre-emptive strategy for removing dead limbs and overhangs that might fall during winter storms.	Not complete	Continuing in new plan
WINTER STORM	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.	Not complete	Continuing in new plan
HAILSTORM	Install hail resistant film on the windows of critical facilities.	Not complete	Continuing in new plan
HAILSTORM	Conduct a workshop for residents about the prevalence of hailstorms and how to protect your home and property from hail damage.	Not complete	Continuing in new plan
DROUGHT	Conduct Xeriscaping and water conservation workshops for the city.	Not complete	Continuing in new plan
DROUGHT	Replace municipal appliances or equipment with water saving parts as old ones wear out.	Not complete	Continuing in new plan
EXTREME HEAT	Conduct fan drives for low-income and elderly who cannot afford air conditioning.	Not complete	Continuing in new plan
EXTREME HEAT	Provide workshops on how to mitigate infrastructure from the effects of extreme heat.	Not complete	Continuing in new plan
WILDFIRE	Develop and implement a vegetation management program to reduce the danger of wildfire reaching dwellings.	Not complete	Continuing in new plan
WILDFIRE	Conduct a wildfire education program stressing the dangers of trash burning to help prevent wildfires	Not complete	Continuing in new plan

Omaha

NOTE: All *projects are subject to availability of federal and local funding as well as availability of local staff to administer the project.*

Omaha Drought Action #1	Conduct Xeriscaping and water conservation workshops for the city.
Mitigation Goal/Objective	Goal 2 Public Awareness; Goal 3 Natural Systems; Goal 4 Partnerships and Implementation
Priority	Medium
Funding Source(s)	Omaha Annual Budget
Estimated Cost	Low 0-10k
Responsible Agency	Omaha Mayor
Estimated Completion Time	5 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	Using drought resistant plants can help curtail excessive water usage.

Omaha Drought Action #2	Replace municipal appliances or equipment with water saving parts as old ones wear out.
Mitigation Goal/Objective	Goal 1 Protecting Life and Property
Priority	Low
Funding Source(s)	FEMA Grant/Omaha Annual Budget
Estimated Cost	0-10k
Responsible Agency	Omaha Public Works Director
Estimated Completion Time	8 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	This will conserve water and set examples for the residents of Hooks

Omaha Extreme Heat Action #1	Conduct fan drives for low-income and elderly who cannot afford air conditioning.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 4 Partnerships and Implementation
Priority	High
Funding Source(s)	Omaha Annual Budget, Fundraiser
Estimated Cost	0-10k
Responsible Agency	Omaha Mayor
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	Much can be accomplished when the private and public sector joins hands.

Omaha Extreme Heat Action #2	Provide workshops on how to mitigate infrastructure from the effects of extreme heat.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	Medium
Funding Source(s)	Omaha Annual Budget
Estimated Cost	0-10k
Responsible Agency	Omaha Mayor
Estimated Completion Time	5 years
Effect on New Buildings	The workshop would contain information about insulation.
Effect on Existing Buildings	The workshop would contain information about insulation.
Comments:	

Omaha Flood Action #1	Install permanent "Caution Road may Flood" warning signs on roadways that flood.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	Omaha Annual Budget
Estimated Cost	0-10k
Responsible Agency	Omaha Public Works Director
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	Signs make people more aware of Flooding Danger.

Omaha Flood Action #2	Widen ditches to increase volume capacity of flash flood waters.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA grant, Omaha Annual Budget
Estimated Cost	10-25k
Responsible Agency	Omaha Public Works Director
Estimated Completion Time	3 years
Effect on New Buildings	This could protect new buildings from flash flooding.
Effect on Existing Buildings	This could protect new buildings from flash flooding.
Comments:	By widening ditches, especially in poor drainage areas, the likelihood of flooding is decreased.

Omaha Flood Action #3	Develop a flood damage prevention ordinance that includes making substantial improvements/substantial damage determinations requiring homeowners to obtain permits to bring buildings into compliance with floodplain management requirements.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA Grant/City of Omaha Annual Budget
Estimated Cost	0-10k
Responsible Agency	City of Omaha Mayor
Estimated Completion Time	3 years
Effect on New Buildings	Constructed by methods/practices to minimize flood damage
Effect on Existing Buildings	Improvements by methods/practices to minimize flood damage
Comments:	

Omaha Hail Action #1	Install hail resistant film on the windows of critical facilities.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grant/Omaha Annual Budget
Estimated Cost	0-10k
Responsible Agency	Omaha Public Works Director
Estimated Completion Time	5 years
Effect on New Buildings	Can protect new buildings from window damage from hail
Effect on Existing Buildings	Can protect existing buildings from window damage from hail
Comments:	

Omaha Hail Action #2	Conduct a workshop for residents about the prevalence of hailstorms and how to protect your home and property from hail damage.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	Omaha Annual Budget
Estimated Cost	0-10k
Responsible Agency	Omaha Mayor
Estimated Completion Time	3 years
Effect on New Buildings	Knowledge gained from workshops can translate into actions that improve structures and their design.
Effect on Existing Buildings	Knowledge gained from workshops can translate into actions that improve structures and their design.
Comments:	

Omaha Lightning Action #1	Install lightning arrestors on critical facilities and infrastructure.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grants; City Annual Budget
Estimated Cost	10-25k
Responsible Agency	City of Omaha Mayor
Estimated Completion Time	5 years
Effect on New Buildings	Could protect the structural integrity of the building
Effect on Existing Buildings	Could protect the structural integrity of the building
Comments:	

Omaha Thunderstorm Winds Action #1	Create and enforce a city ordinance requiring approved mobile home tie-downs.
Mitigation Goal/Objective	Goal 1 Protecting Life and Property
Priority	Medium
Funding Source(s)	FEMA Grant/Omaha Annual Budget
Estimated Cost	0-10k
Responsible Agency	Omaha Mayor
Estimated Completion Time	5 years
Effect on New Buildings	This would help protect new mobile homes from wind damage.
Effect on Existing Buildings	This would help protect existing mobile homes from wind damage.
Comments:	This inexpensive action can reduce mobile home damage and resident injury .

Omaha Thunderstorm Winds Action #2	Provide public workshops and information regarding mitigating homes against windstorms.
Mitigation Goal/Objective	Goal 1 Protects Life and Property
Priority	Medium
Funding Source(s)	Omaha Annual Budget
Estimated Cost	0-10K
Responsible Agency	Omaha Public Works Director
Estimated Completion Time	5 years
Effect on New Buildings	Knowledge gained from workshops can translate into actions that improve structures and their design.
Effect on Existing Buildings	Knowledge gained from workshops can translate into actions that improve structures and their design.
Comments:	The Storm Ready Program is about building community resilience in the face of increasing vulnerability to extreme weather and water events.

Omaha Tornado Action #1	Develop and implement the Texas Individual Tornado Safe Room Program.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	High
Funding Source(s)	FEMA Grant, Omaha Annual Budget
Estimated Cost	0-10k
Responsible Agency	Omaha Mayor
Estimated Completion Time	3 years
Effect on New Buildings	N/A
Effect on Existing Buildings	N/A
Comments:	A safe room placed in a home or business will save lives.

Omaha Tornado Action #2	Develop and implement a public education program that will provide the public with understanding of their risk to Tornado events and the mitigation methods to protect themselves, their family, and their property.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 2 Public Awareness
Priority	High
Funding Source(s)	Omaha Annual Budget
Estimated Cost	0k-10k
Responsible Agency	Omaha Mayor
Estimated Completion Time	2 years
Effect on New Buildings	This could help reduce damage by implementing ideas about home and business protection from tornadic winds.
Effect on Existing Buildings	This could help reduce damage by implementing ideas about home and business protection from tornadic winds.
Comments:	Educating the public is an integral part of mitigation.

Omaha Wildfire Action #1	Develop and implement a vegetation management program to reduce the danger of wildfire reaching dwellings.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 3 Natural Systems; Goal 4 Partnerships and implementation
Priority	Medium
Funding Source(s)	Omaha Annual Budget
Estimated Cost	10-25k
Responsible Agency	Mayor of Omaha
Estimated Completion Time	4 years
Effect on New Buildings	This would protect new buildings from encroaching wildfire.
Effect on Existing Buildings	This would protect new buildings from encroaching wildfire.
Comments:	

Omaha Wildfire Action #2	Conduct a wildfire education program stressing the dangers of trash burning to help prevent wildfires.
Mitigation Goal/Objective	Goal 2 Public Awareness
Priority	High
Funding Source(s)	Omaha Annual Budget
Estimated Cost	0-10k
Responsible Agency	Omaha Fire Chief
Estimated Completion Time	3 years
Effect on New Buildings	Out of control trash burning can destroy a new building.
Effect on Existing Buildings	Out of control trash burning can destroy an existing building.
Comments:	Programs such as this can empower citizens to take precautionary action.

Omaha Winter Storms Action #1	Develop and implement a pre-emptive strategy for removing dead limbs and overhangs that might fall during winter storms.
Mitigation Goal/Objective	Goal 1 Protect Life and Property; Goal 4 Partnership and Implementation
Priority	Medium
Funding Source(s)	Omaha Annual Budget
Estimated Cost	10-25k
Responsible Agency	Mayor of Omaha
Estimated Completion Time	5 years
Effect on New Buildings	This can protect both homes and businesses from power loss and damage from falling limbs.
Effect on Existing Buildings	This can protect both homes and businesses from power loss and damage from falling limbs.
Comments:	

Omaha Winter Storms Action #2	Purchase Emergency mobile generators to use with emergency equipment during power outages for critical facilities.
Mitigation Goal/Objective	Goal 1 Protect Life and Property
Priority	Medium
Funding Source(s)	FEMA Grant/Omaha Annual Budget
Estimated Cost	10-25k
Responsible Agency	Omaha Mayor
Estimated Completion Time	5 years
Effect on New Buildings	This could protect new buildings from sewage flooding and water contamination.
Effect on Existing Buildings	This could protect existing buildings from sewage flooding and water contamination.
Comments:	

SECTION V: Plan Implementation and Maintenance

Monitoring, Implementation, Evaluating, Updating and Integration

Morris County and each participating jurisdiction will be responsible for implementing its own mitigation actions contained in Section IV. Each action has been assigned to a specific person or local government office that is responsible for implementing it. Morris County and its jurisdictions have very lean budgets and staff. They rely on grants and federal funding for many of the improvements that are made within their borders. State law requires that the city council and the Commissioners' Court of Morris County approve changes to budgets, improvement plans and mitigation plans. The governing bodies of each participating jurisdiction have adopted the mitigation action plan for their jurisdictions.

The Morris County Commissioners will be responsible for adopting the Morris County Mitigation Action Plan. (All jurisdictions must officially adopt and commit to implementation of the plan to be covered by the plan. This includes all participating cities/towns). This governing body has the authority to make public policy regarding natural hazards. The Morris County Hazard Mitigation Plan will be submitted to the Texas Department of Emergency Management for review and upon their approval, TDEM will then submit the plan to the Federal Emergency Management Agency (FEMA) for review and final approval. The review will address the federal criteria outlined in FEMA Final Rule 44 CFR Part 201. Once accepted by FEMA, Morris County/City will formally adopt it and gain eligibility for Hazard Mitigation Grant Program funds.

Monitoring

To prevent issues regarding meeting the goals of The Morris County Hazard Mitigation Plan it is agreed that the county and participating jurisdictions will evaluate the plan on an annual basis to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities. The evaluation process will include a definite schedule and timeline and will identify the local agencies and organizations participating in plan evaluation.

Annually near the anniversary of the plan's approval, the Hazard Mitigation Committee Members will meet to monitor the progress of the mitigation actions for their respective communities. The County Judge or his/her designated appointee will organize the meeting. The public will be invited to attend and will be encouraged to provide feedback.

The Status of the Hazard Mitigation Actions will be monitored by the designated emergency management coordinator for each jurisdiction on a quarterly basis. Preparation for the Five-Year Plan Update will begin no later than 1 year prior to the plan expirations date.

Evaluation

During the annual meeting to review the Hazard Mitigation Action Plan, committee members will review the progress of each action for each community to assess if the action is being completed in a timely fashion and if additional resources need to be directed to complete the actions. Worksheet 9: Action Monitoring Form, from the FEMA Local Mitigation Planning Handbook May 2023, will be completed to evaluate progress towards the completion of the Mitigation Actions. Evaluating the plan's actions is important to maintain accountability for all team members.

They will also review the risk assessment portion of the Plan to determine if this information should be updated or modified, given any new available data. This plan can and will pave the way for other plans, codes, and programs. A written record of the annual meeting, along with any project

reports, will be accomplished and kept on file in the county office. Every five years the updated plan will be submitted to the State Hazard Mitigation Officer.

Implementation

The Morris County Hazard Mitigation Committee will be responsible for coordinating implementation of the five-year plan action items and undertaking the formal review process. Upon formal adoption of the plan, hazard mitigation team members from each participating jurisdiction will review all comprehensive land use plans, capital improvement plans, Annual Budget Reviews, Emergency Operations or Management Plans, transportation plans, and any building codes to guide and control development. While the hazard mitigation team members have not yet incorporated the hazard mitigation strategies into other plans and codes, they plan to do so during this next update period. Each jurisdiction will conduct annual reviews of their comprehensive and land use plans and policies and analyze the need for any amendments considering the approved hazard mitigation plan. Participating jurisdictions will ensure that capital improvement planning in the future will also contribute to the goals of this hazard mitigation plan to reduce the long-term risk to like and property from all hazards. Within one year of formal adoption of the hazard mitigation plan, existing planning mechanisms will be reviewed by each jurisdiction.

The Morris County HMAP will be incorporated into a variety of new and existing planning mechanisms for Daingerfield, Lone Star, Naples, Omaha and the County government including grant applications, human resource manuals, ordinances, building codes and budgets. Each team member will communicate current ideas and issues found within the plan to the city boards. The county and its participating jurisdictions will consider how to best incorporate the plans together. This includes incorporating the mitigation plan into county and local comprehensive or capital improvement plans as they are developed.

Updating

Preparation for the Five-Year Plan Update will begin no later than 1 year prior to the plan's expiration date. The County Judge or his/her designated appointee will organize a meeting with the Hazard Mitigation Committee Members to begin the update process. The committee members will organize all data gathered during the monitoring and evaluation meetings to assist will the plan update. The committee members will also assess the need for additional participating jurisdictions for the plans update. The public will be invited to attend and will be encouraged to provide feedback.

Copies of the Plan will be kept at the county courthouse and all city halls. The existence and location of these copies will be publicized in the appropriate local papers. The plan includes the address and the phone number of the county department responsible for keeping track of public comments on the Plan.

Morris County is committed to supporting the cities, communities, and other jurisdictions in the planning area as they implement their mitigation plans. Morris County will review and revise, as needed, the long-range goals and objectives in its strategic plan and budgets to ensure that they are consistent with this mitigation action plan. Morris County will work with participating jurisdictions to advance the goals of the hazard mitigation plan through its routine, ongoing, long-range planning, budgeting, and work processes.

Integration

Unincorporated Morris County, population 4,892. The following are Morris County's authorities, policies, programs, and resources available to accomplish hazard mitigation action and strategies.

Morris County has a County Judge and four Commissioners. It has volunteer fire departments and a public works department. There is a county Emergency Management Coordinator. Unincorporated Morris County will integrate data and action recommendations into the existing maintenance program. The County Judge or County Commissioner will propose the integration to the County which will vote on it at the monthly city council meeting. The County Judge will sign this into action after a majority vote. To improve and expand capabilities, Morris County should establish a team to develop public-private initiatives addressing disaster related issues.

Daingerfield, population 2,522. The following are the city of Daingerfield's authorities, policies, programs, and resources available to accomplish hazard mitigation actions and strategies. Daingerfield's has a Mayor, a City Manager and a City Secretary. It also has a volunteer fire department. Daingerfield has building codes and code enforcement in place. Daingerfield will integrate actions and recommendations of the mitigation plan into the master plan. The mayor will propose these actions at the monthly City Council meeting. The mayor will sign this into action after a majority vote. To improve and expand capabilities, the city of Daingerfield should establish a Hazard Mitigation Team to address their Hazard Mitigation Plan recommendations. They could also benefit from additional training and staff to support mitigation plan activities.

Lone Star, population 1,993. The following are the city of Lone Star authorities, policies, programs, and resources available to accomplish hazard mitigation actions and strategies. Lone Star has a Mayor, a City Secretary, and a Public Works Director. It also has a volunteer fire department. Lone Star will integrate actions and recommendations of the mitigation plan into the master plan. The mayor will propose these actions at the monthly City Council meeting. The mayor will sign this into action after a majority vote. To improve and expand capabilities, the city of Lone Star should establish a Hazard Mitigation Team to address their Hazard Mitigation Plan recommendations. They could also benefit from additional training and staff to support mitigation plan activities.

Naples, population 1387. The following are the city of Naples authorities, policies, programs, and resources available to accomplish hazard mitigation actions and strategies. Naples has a Mayor, a City Administrator, and a City Secretary. There is also a volunteer fire department that serves Naples. Naples will integrate actions and recommendations of the mitigation plan into the master plan. The mayor will propose these actions at the monthly City Council meeting. The mayor will sign this into action after a majority vote. To improve and expand capabilities, the city of Naples should establish a Hazard Mitigation Team to address their Hazard Mitigation Plan recommendations. They could also benefit from additional training and staff to support mitigation plan activities.

Omaha, population 1,179. The following are the city of Omaha authorities, policies, programs, and resources available to accomplish hazard mitigation actions and strategies. Omaha has a Mayor and a City Secretary. There is also a volunteer fire department that serves Omaha. Omaha will integrate actions and recommendations of the mitigation plan into the master plan. The mayor will propose these actions at the monthly City Council meeting. The mayor will sign this into action after a majority vote. To improve and expand capabilities, the city of Omaha should establish a Hazard Mitigation Team to address their Hazard Mitigation Plan recommendations. They could also benefit from additional training and staff to support mitigation plan activities.

RESOLUTION

Morris County

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha recognize their vulnerability and the many potential hazards shared by all residents; and

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha each have recognized the need to prepare a Five-year Updated Mitigation Action Plan; and

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha have decided to jointly prepare one Five-year Updated Mitigation Action Plan.

THEREFORE, BE RESOLVED that the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha hereby jointly adopt and approve said Five-year Updated Mitigation Action Plan; and

BE IT FURTHER RESOLVED that the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha shall mutually appoint a Hazard Mitigation Coordinator to coordinate all aspects of the Updated and Revised Mitigation Action Plan including its review and maintenance, for the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha in accordance with this resolution.

RESOLVED THIS _____ DAY OF _____, 2025

_____
County Judge, Morris County, Texas

ATTEST _____
County Clerk

RESOLUTION

Daingerfield

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha recognize their vulnerability and the many potential hazards shared by all residents; and

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha each have recognized the need to prepare a Five-year Updated Mitigation Action Plan; and

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha have decided to jointly prepare one Five-year Updated Mitigation Action Plan.

THEREFORE, BE IT RESOLVED that the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha hereby jointly adopt and approve said Five-year Updated Mitigation Action Plan; and

BE IT FURTHER RESOLVED that the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha shall mutually appoint a Hazard Mitigation Coordinator to coordinate all aspects of the Updated and Revised Mitigation Action Plan including its review and maintenance, for the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha in accordance with this resolution.

RESOLVED THIS _____ DAY OF _____, 2025

_____
Mayor, Daingerfield, Texas

ATTEST _____
City Secretary

RESOLUTION

Lone Star

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha recognize their vulnerability and the many potential hazards shared by all residents; and

WHEREAS, the of County Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha each have recognized the need to prepare a Five-year Updated Mitigation Action Plan; and

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha have decided to jointly prepare one Five-year Updated Mitigation Action Plan.

THEREFORE, BE IT RESOLVED that the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha hereby jointly adopt and approve said Five-year Updated Mitigation Action Plan; and

BE IT FURTHER RESOLVED that the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha shall mutually appoint a Hazard Mitigation Coordinator to coordinate all aspects of the Updated and Revised Mitigation Action Plan including its review and maintenance, for the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha in accordance with this resolution.

RESOLVED THIS _____ DAY OF _____, 2025

_____
Mayor, Lone Star, Texas

ATTEST _____
City Secretary

RESOLUTION

Naples

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha recognize their vulnerability and the many potential hazards shared by all residents; and

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha each have recognized the need to prepare a Five-year Updated Mitigation Action Plan; and

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha have decided to jointly prepare one Five-year Updated Mitigation Action Plan.

THEREFORE, BE IT RESOLVED that the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha hereby jointly adopt and approve said Five-year Updated Mitigation Action Plan; and

BE IT FURTHER RESOLVED that the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha shall mutually appoint a Hazard Mitigation Coordinator to coordinate all aspects of the Updated and Revised Mitigation Action Plan including its review and maintenance, for the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha in accordance with this resolution.

RESOLVED THIS _____ DAY OF _____, 2025

_____
Mayor, Naples, Texas

ATTEST _____
City Secretary

RESOLUTION

Omaha

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha recognize their vulnerability and the many potential hazards shared by all residents; and

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha each have recognized the need to prepare a Five-year Updated Mitigation Action Plan; and

WHEREAS, the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha have decided to jointly prepare one Five-year Updated Mitigation Action Plan.

THEREFORE, BE IT RESOLVED that the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha hereby jointly adopt and approve said Five-year Updated Mitigation Action Plan; and

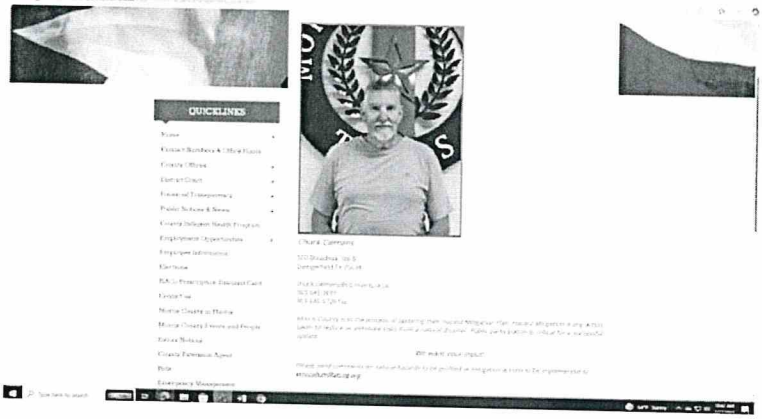
BE IT FURTHER RESOLVED that the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha shall mutually appoint a Hazard Mitigation Coordinator to coordinate all aspects of the Updated and Revised Mitigation Action Plan including its review and maintenance, for the County of Morris, the Cities of Daingerfield, Lone Star, Naples, and Omaha in accordance with this resolution.

RESOLVED THIS _____ DAY OF _____, 2025

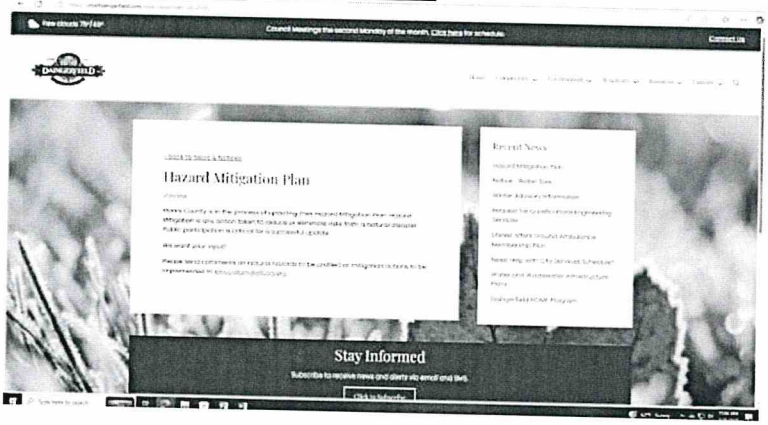
_____
Mayor, Omaha, Texas

ATTEST _____
City Secretary

Public Input Request Morris County



Public Input Request Daingerfield



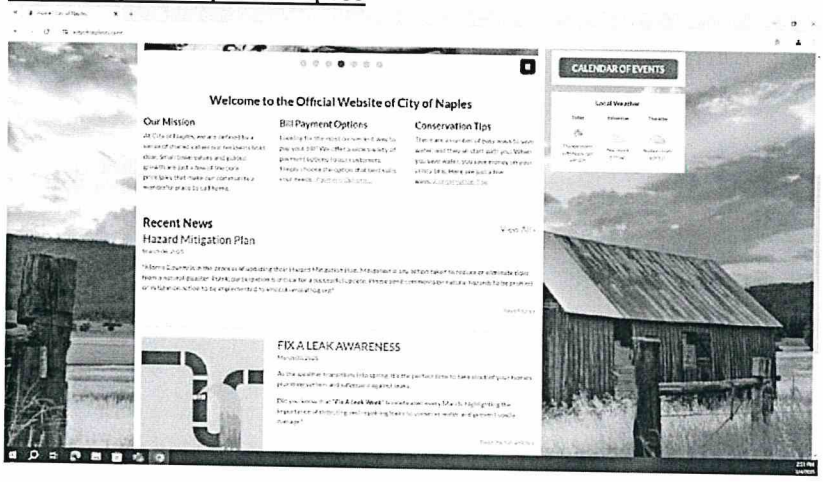
Public Input Request Lone Star Facebook March 4, 2025

City of Lone Star TX's posts

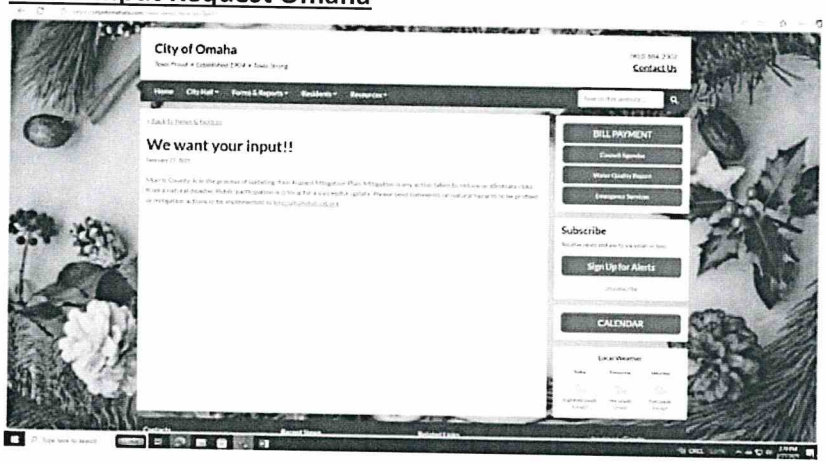
City of Lone Star TX ...
1m ·

Like Comment Send Share

Public Input Request Naples



Public Input Request Omaha



Picture of Notice at Courthouse

Picture of Newspaper Notice

Stakeholder Letter

Dear Stakeholder,

The Ark-Tex Council of Governments, Morris County, and the jurisdictions of Daingerfield, Lone Star, Naples, and Omaha are preparing a Hazard Mitigation Plan Five-Year Update. Your county or organization has been identified as a possible stakeholder in the plan, and we invite you to participate in our plan development. Hazard Mitigation is defined as any sustained action taken to reduce or eliminate the long-term risk to life and property from hazard events.

Emergency management coordinators, county judges, non-profit organizations, law enforcement, local civil servants, nonprofit groups, and other interested parties are invited to participate. Please feel free to post this letter and/or share with the population you serve. To review a *draft* of the plan, go to INSERT LINK. We will be happy to consider your interests, questions, concerns, suggestions, and participation in the development of this plan. You may contact me by phone or by e-mail at your convenience.

To find out more about hazard mitigation click on or paste the following link:
Hazard Mitigation Planning for Local Communities (fema.gov)

If you need additional information, feel free to contact my office.

Kathy McCollum
Development Specialist

Ark-Tex Council of Governments

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