

City of Sachse Annex

This annex was prepared in 2013 as part of the update to the Dallas County Multi-Jurisdictional Hazard Mitigation Action Plan. The City of Sachse has a FEMA approved hazard mitigation plan. The City was one of the 11 jurisdictions that participated in the Dallas County Hazard Mitigation Action Plan that was adopted in 2009.

The City of Sachse was represented at the 2013 Countywide Dallas County Multi-Jurisdictional Hazard Mitigation Action Plan Working Group meetings. In addition to the countywide hazards and strategies discussed in the previous sections, this annex serves as a complete hazard mitigation planning tool for the City of Sachse. It contains updated capability assessment information, a specific vulnerability assessment, and a complete mitigation strategy. The methodology and process for developing this annex is explained throughout the following sections.



1. Introduction

Sachse is located at 32.5835 N and 96.6510 W. It sits directly north of Rowlett, northeast of Garland, east of Richardson, and south of southeast of Plano. It is at the far upper east corner of Dallas County. Texas State highway bisects Sachse in two halves.



William Sachse, who came to America from Herford, Prussia in 1840, was the founder of Sachse. At the age of 25, he arrived in Texas in 1845, securing 640 acres in Collin County. He later acquired an additional 5,000 acres. Sachse erected one of the first cotton mills and gins in the county. In 1886, William Sachse gave 100 feet of right-of-way frontage through all of his holdings to the railroad. In exchange, the railroad built a depot and named the town Sachse. When the railroad built the depot, signs at both ends of the building

read "Saxie". The mistake was later corrected reflecting the proper spelling, but as a result of the error, numerous legal documents during that time designated the town as "Saxie" (cityofsachse.com).

According to the 2010 U.S. Census Bureau, the population of Sachse is approximately 20,329. The racial makeup of the city is 63.7% White, 8.7% African American, 0.5% Native American, 11% Asian, 0.1% Pacific Islander, .2% from other races and 1.8% from two or more races. Hispanic or Latino is 13.9%. The city has a total area of 9.9 square miles with 9.2 square miles being land and 0.2 square miles water. There are approximately 6,972 housing units in the city consisting of single-family, multi-family and other semi-permanent structure (i.e. mobile homes, manufactured housing, boats and RVs) units.

The city of Sachse operates under the Council-Manager form of government. Council-Manager governments function with the City Manager appointed by the Council. The Manager is responsible for the day-to-day management of City activities. The Council sets policy for the City, adopts the annual budget, appoints committee members, and addresses requests from the community. The City Manager then administers the ordinances and resolutions approved by the City Council. In addition, the City Manager is responsible for all personnel matters in the City and for preparing and submitting an annual budget for Council review.



The City of Sachse’s economic development is attributed to its close proximity to surrounding cities and businesses. Currently, there are plans to redevelop along State highway 78. The city is also working on a plan for a multi-sport athletic complex that has the potential to expand profit for the city.

2. Internal Planning Process:

The table below lists members of the City of Sachse Hazard Mitigation Planning Team (HMPT). These individuals collaborated to identify the city’s critical facilities, provide relevant plans, report on progress of mitigation actions and provide suggestion for mitigation actions for the City of Sachse.

Name	Title/Department or Agency
Rick Coleman	Fire Chief / Emergency Management Coordinator, Fire Rescue Department
Marc Kurbansade	Director of Community Development
Greg Peters	City Engineer
Joe Crase	Director of Public Works
Marty Cassidy	Lieutenant Sachse Police Department
Jackie Cottongame	Dispatch Supervisor

The Hazard Mitigation Planning Team (HMPT) met regular during the planning process data needs and to organize data collection.

Meeting Dates	Summary of Discussions
7/18/13	Planning meeting with HAZMAP team
7/24/13	County Planning Meeting in Richardson
7/24/13	Sachse Team Planning meeting
8/14/13	Team meeting
8/21/13	Team meeting
9/15/13	Team meeting
10/01/13	Team meeting
10/03/13	Assign Deliverables to deserving team members
10/08/13	Research 2009 plan
10/09/13	Review Wild land Urban Interface
10/11/13	Review Dam Mitigation Plan
10/16/13	Preliminary research and work on HIRA
10/23/13	Complete the HIRA
10/30/13	Complete Deliverables
10/31/13	Finalization of HAZMAP
12/18/13	Final input into plan

Public Involvement

In April 2013, an online survey was distributed county-wide to solicit public input regarding the concern for risk to natural hazard events and suggestions for how the county could help minimize the risk.

The City of Sachse notified residents and businesses in the county about the opportunity to participate or provide input during the plan development through their City’s website, public notices in their utilities bill as well on the notice boards at City Hall and the Public Library. The notices directed the public to the online survey. The survey was made available in both English and Spanish. Copies of city’s outreach materials are included in Appendix Section.

Survey Results Overview

The City of Sachse made available a public survey that asked a wide range of questions concerning the opinions of the public regarding natural and man created hazards. The survey questions were developed and approved by the Dallas County Hazard Mitigation Working Group. The survey was linked to the City’s website and public outreach program was implemented to solicit public input.

A total of 23 survey responses were collected, the results of which are analyzed in this section. As has been stated earlier the purpose of the survey was to:

- 1) Solicit public input during the planning process, and
- 2) Help the city to identify any potential actions or problem areas.

A summary of the survey results are depicted below showing the responses and the number of respondents for each answer. Detailed responses to the survey are provided in Appendix C-1 of this annex.

Survey Summary

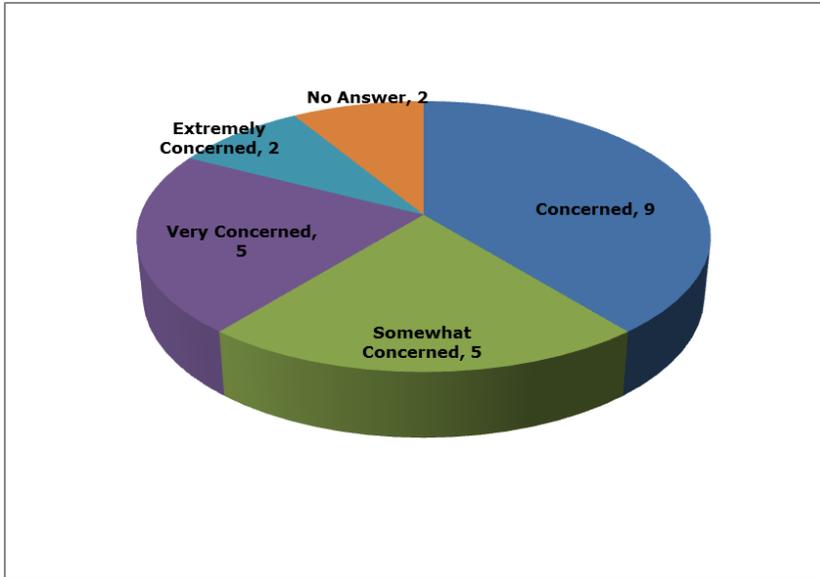
1. Please select your jurisdiction from the list. You may only select one jurisdiction for each survey completed. If you belong to more than one jurisdiction in this list, please complete multiple surveys.

✓ Total number of responses submitted from the citizens of the City of Sachse - 23

2. Have you ever experienced or been impacted by a disaster?



3. How concerned are you about the possibility of your community or jurisdiction being impacted by a disaster?



4. The hazards addressed in the Dallas County Hazard Mitigation Action Plan are listed below. Please indicate your opinion for each hazard to impact your jurisdiction (identified above). Please rate each Hazard as follows.

- ✓ Unlikely
- ✓ Occasional
- ✓ Likely
- ✓ Highly Likely

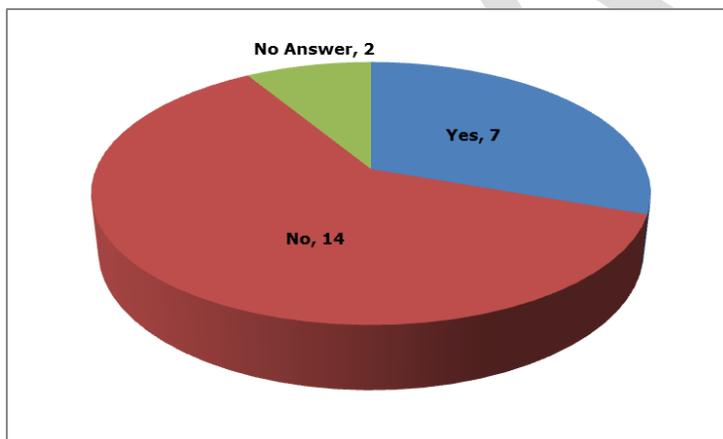
	Unlikely	Occasional	Likely	Highly Likely	Skipped	Total Answered	Average Rating
Earthquake	16	3	1	0	3	20	1.25
Tornado	0	3	5	13	2	21	3.48
Hail	0	0	6	15	2	21	3.71
High Winds	0	0	4	17	2	21	3.81
Winter Storms	2	7	7	5	2	21	2.71
Summer Hear	0	0	1	20	2	21	3.95
Drought	0	2	3	16	2	21	3.67
Flooding	5	9	4	3	2	21	2.24
Dam Failure	17	3	1	0	2	21	1.24
Stream Bank Erosion	14	3	4	0	2	21	1.52
Levee Failure	17	4	0	0	2	21	1.19

5. The hazards addressed in the Multi-Jurisdictional Hazard Mitigation Plan are listed below. Please indicate your opinion on the potential magnitude or impact of each hazard's impact on YOUR JURISDICTION (identified above). Please rate EACH hazard as follows.

- ✓ Limited
- ✓ Minor
- ✓ Major
- ✓ Substantial

	Limited	Minor	Major	Substantial	Skipped	Total Answered
Earthquake	14	5	2	0	2	21
Tornado	0	1	5	15	2	21
Hail	0	2	11	8	2	21
High Winds	0	2	8	11	2	21
Winter Storms	3	10	6	1	3	20
Summer Heat	1	5	8	7	2	21
Drought	1	3	7	10	2	21
Flooding	6	7	8	0	2	21
Dam Failure	14	3	4	0	2	21
Stream Bank Erosion	14	5	2	0	2	21
Levee Failure	14	3	3	0	3	20

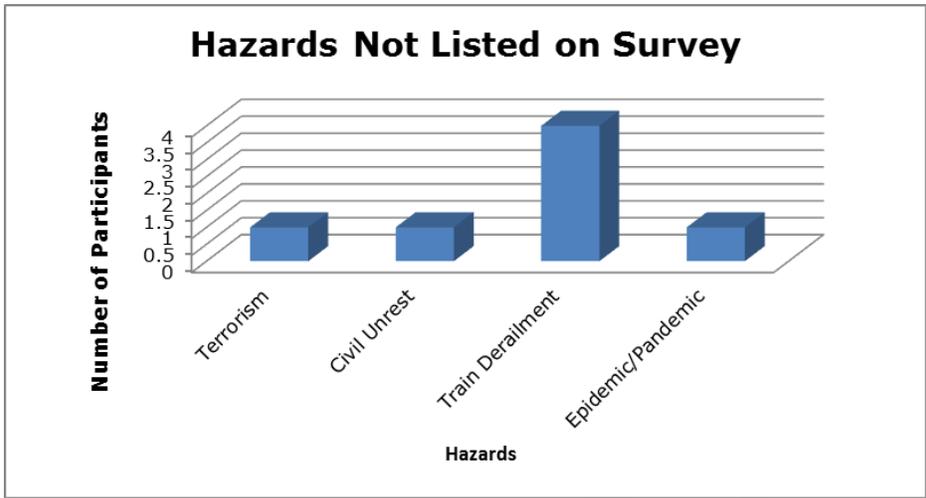
6. Is there another hazard not listed above that you think is a wide-scale threat to your jurisdiction?



If "Yes", please list the hazard(s) you think are a wide-scale threat that are not listed. Also rate each hazard you list above using the criteria description provided i.e. Occurrence (Unlikely, Occasional, Likely or Highly Likely); Severity or Impact (Low, Medium, High or Catastrophic); and Extent (Low, Medium, High or Catastrophic)

Type of Hazard	Amount
Chemical/ HazMat	3
Terrorism	1
Civil Unrest	1
Train Derailment	4

Type of Hazard	Amount
Epidemic/Pandemic	1



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7. Below are broad mitigation strategies identified in the Dallas County Hazard Mitigation Action Plan (HazMAP) that are to address the hazards that affect the jurisdictions in the plan. In your opinion, please check which of these mitigation strategies do you believe could benefit your jurisdiction:

Answer Choices	Responses
Improve on Land Use Program	6
Flood Plain Management to include Localized Flood and Soil Erosion Reduction Projects (storm water management or localized flood control projects, and Cast in Place (CIP) Erosion Control):	9
Improve, adopt and enforce building codes:	9
Implement the Texas Individual Tornado Safe Room Rebate Program:	14
Expand and improve on programs such as the Community Emergency Response Teams (CERT) Training, Public Education and Public Awareness Programs:	20
Participate in the National Flood Insurance Program (NFIP) and Community Rating System (CRS) program:	6
Expanded use of CodeRED and other mass notification systems including outdoor warning siren system, and working better with the Nation Weather Service to monitor weather events:	17
Coordinate with Dam owners to conduct inundation studies of dams:	2
Water conservation strategies to include passing resolutions restricting water use for lawn and landscape irrigation; provide low follow devices to property owners:	15
Purchase and improve on the Weatherization Assistance Program (WAP):	10
Conduct an earthquake vulnerability study:	4
Purchase and install lightning prediction and protection devices such as lightning arrestors and lightning rods to protect communications and utility infrastructure:	13
Purchase and install temperature monitoring devices on the elevated roadways that are susceptible to icing:	6
Structural Retrofitting of Existing Buildings:	4
Total Respondents:	21

NB: 2 respondents skipped this question

List any other strategies you think should be included in the plan (themed responses)

- ✓ Community Shelters
- ✓ Improvement of Water Irrigation Systems

8. Below are broad mitigation strategies identified in the Dallas County Hazard Mitigation Action Plan (HazMAP) that are to address the hazards that affect the jurisdictions in the plan. In your opinion, please check which of these mitigation strategies do you believe could benefit your jurisdiction: - List any other strategies you think should be included in the plan

- ✓ Programs focused on educating the public how to better prepare for emergencies.

Public Review Period

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3. Capability Assessment:

The City of Sachse identified current capabilities and mechanisms available for implementing hazard mitigation activities. The administrative and technical capacity section includes a summary of departments and their responsibilities associated with hazard mitigation planning as well as codes, ordinances, and plans already in place associated with hazard mitigation planning.

Key Departments: Key department involved in hazard mitigation activities in the City of Sachse include:

1. Sachse Fire Department: The Sachse Fire Department provides the following services:

- ✓ Fire Response
- ✓ Medical Emergencies
- ✓ Rescue Services

The goal of the department is to protect the lives and property of those in the community.

Non-emergency services the department is involved in include:

- ✓ Building fires or fire alarms
- ✓ Vehicle accidents involving injury or extrication
- ✓ Injured and sick citizens
- ✓ Hazardous materials incidents
- ✓ Animal rescue
- ✓ Assistance for the disabled and elderly
- ✓ Community education

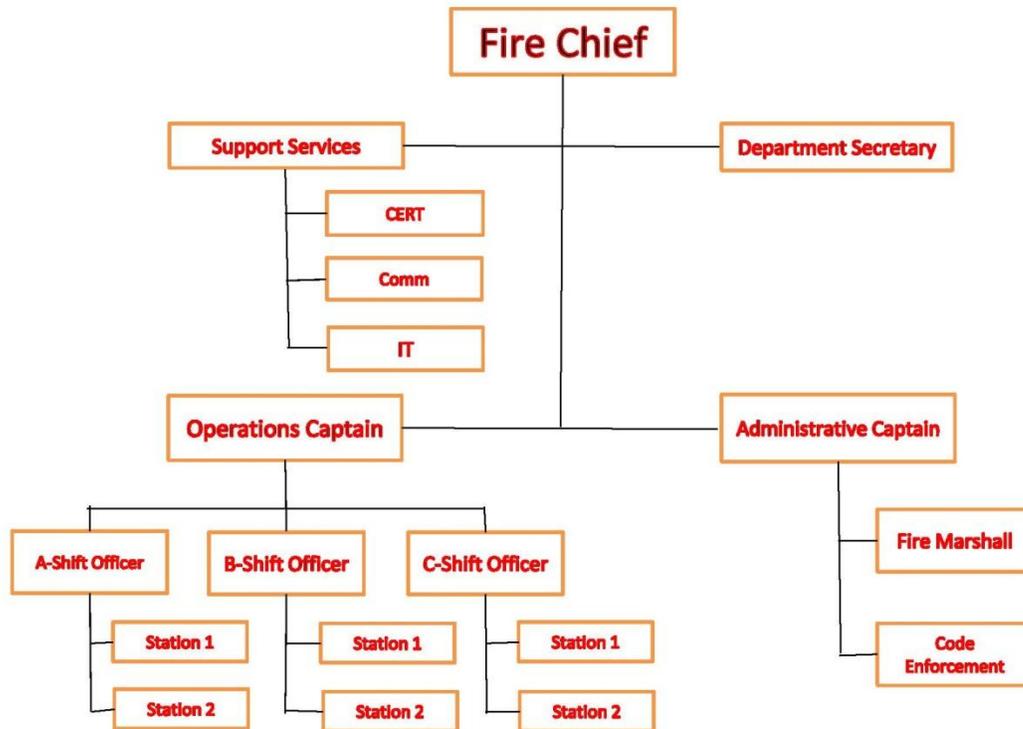
Other functions of the Sachse Fire Department include:

- ✓ Community Emergency Response Team (CERT): CERT refers to a group of people who receive special training to enhance their ability to recognize, respond to, and recover from emergency and disaster situations. Teams are trained to take care of themselves and others before, during, and after an emergency
- ✓ Fire Marshal's Office: The Fire Marshal's Office oversees Code Enforcement, Public Education, Permits, Fees and Codes.
- ✓ EMS: Sachse Fire Rescue (SFR) has full-time and part-time staff including EMT-basics and paramedics and three fully-staffed ambulances

2. Emergency Management: The Emergency Management Department's primary role is to develop the capabilities to mitigate, prepare, respond, and recover from disasters that threaten the City of Sachse. The responsibilities of the EM department include:

- ✓ Identify roles and responsibilities in case of disaster
- ✓ Ensure Emergency Management Manual is current and city employees understand roles in the event of an emergency
- ✓ Implement public education in emergency preparedness
- ✓ Ensure city's compliance with NIMS (National Integrated Management System for responders) and ICS (Incident Command System)
- ✓ Submit grants from Homeland Security, FEMA, and other federal, state and local organizations

Figure CS 1: City of Sachse Fire Rescue Department Organizational Chart



3. Public Works: The Public Works Department provides, operates, and maintains the utility and infrastructure systems that perpetuate a superior quality of life for our community. The department is responsible for protecting the public welfare and providing basic services that affect citizens on a daily basis who live and work in Sachse. These services include streets, water utilities, drainage system, water distribution and wastewater collection.

4. Community Development: The Community Development Department provides the community with the interpretation and application of regulations in accordance with the community established standards related to:

- ✓ Construction
- ✓ Development
- ✓ Zoning

The responsibilities of the department include:

- ✓ Review, approve and inspect development projects, construction projects and related activities
- ✓ Contractor registration
- ✓ Issue permits

- ✓ Zoning
- ✓ Enforce health and maintenance codes
- ✓ Facilities Maintenance

5. Engineering Department: The City of Sachshe Engineering Department provides services to the city's stakeholders in the following areas of responsibility:

- ✓ Citizen inquiry response
- ✓ City departmental support
- ✓ City Engineering Department advancement
- ✓ Construction plan review
- ✓ Engineering expertise advancement
- ✓ Engineering study management
- ✓ Interagency coordination
- ✓ Major infrastructure project management

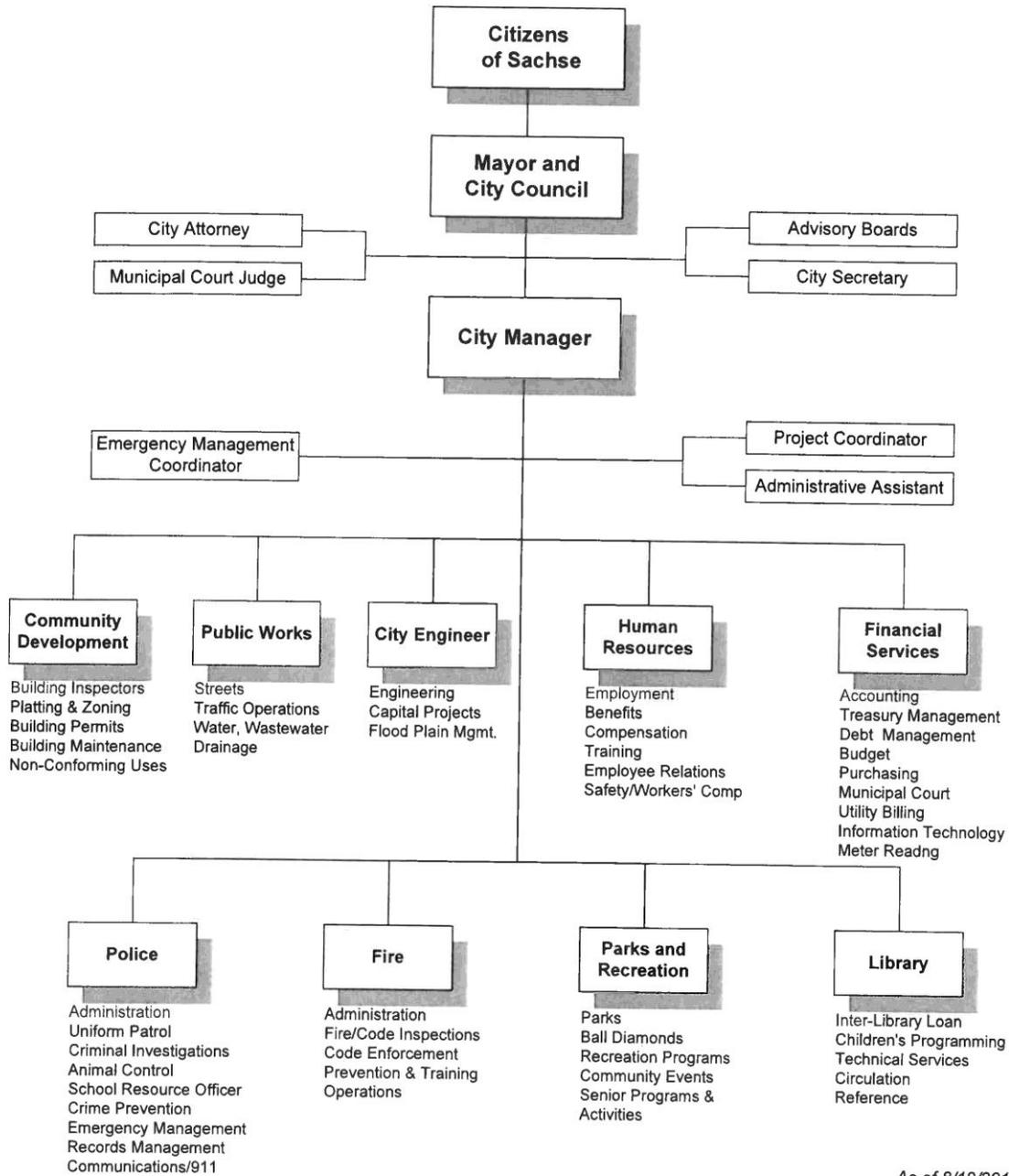
Police Department: The Sachshe Police Department provides law enforcement protection and services to people within the jurisdiction. These services include:

- | | |
|--------------------------|-----------------------------------|
| ✓ Crime Prevention | ✓ Animal Control |
| ✓ Community Outreach | ✓ Records and Evidence Management |
| ✓ Criminal Investigation | ✓ Presence In and Around Schools |
| ✓ Community Patrol | |

Staffing of the Police Department consists of:

- | | |
|--------------------------|----------------------------|
| ✓ Police Chief | ✓ Patrol Officers |
| ✓ Support Division | ✓ Patrol Supervisors |
| ✓ Patrol Division | ✓ School Resource Officers |
| ✓ Criminal Investigators | ✓ School-Crossing Guards |

Figure CS 2: City of Sachse Organizational Chart



As of 8/19/2010

Summary of Capabilities

The tables below identify the current capabilities in the City of Sachse.

Planning and Regulatory

Plans	Yes/No Year	Does the plan Address hazards? Does the plan identify projects to include in the mitigation Strategy? Can the plan be used to implement mitigation actions?
Comprehensive/Master Plan	Yes 2010	1. Yes 2. Yes 3. Yes
Capital Improvements Plan	Yes 2012	1. Yes 2. Yes 3. Yes
Economic Development Plan	Yes 2010	1. Yes 2. Yes 3. Yes
Local Emergency Operations Plan	Yes 2010	1. Yes 2. Yes 3. Yes
Continuity of Operations Plan	Yes 2010	1. Yes 2. Yes 3. Yes
Transportation Plan	Yes 2010	Part of the Comprehensive Plan
Stormwater Management Plan	Yes 2010	Part of the Comprehensive Plan
Community Wildfire Protection Plan	No	
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)	No	

Building Code, Permitting, and Inspections	Yes/No	
Building Code	Yes	Version/Year: IBC 2009, NEC 2008
Building Code Effectiveness Grading Schedule (BGEES) Score		Score:
Fire Department ISO rating	Yes	Rating: 3, 2005
Site Plan review requirements	Yes	Yes
Land Use Planning and Ordinances	Yes/No	Is the ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Zoning ordinance	Yes	1. Yes 2. Yes
Subdivision ordinance	Yes	1. Yes 2. Yes
Floodplain ordinance	Yes	1. Yes 2. Yes
Natural hazard specific ordinance (storm-water, steep slope, wildfire)	Yes	1. Stormwater 2. Yes
Flood insurance rate maps	Yes	TML
Acquisition of land for open space and public recreation uses	Yes	1. Yes 2. Yes
How can these capabilities be expanded and improved to reduce risk?		
150 rating is slated for review in 2016, a lower rating is expected.		
Land-use planning and ordinances are reviewed annually for efficiency.		

Administrative and Technical

Administration	Yes/No	Describe capability Is coordination effective?
Planning Commission	Yes	Planning and Zoning Committee recommending body
Mitigation Planning Committee	Yes	Meet and recommend quality
Maintenance programs to reduce risk (e.g., tree trimming , clearing drainage systems)	Yes	Public Works, Parks and Recreation, Health Dept., and Inspections
Mutual aid agreements	Yes	Mutual aid agreements and Dallas County for public safety
Staff	Yes/No FT/PT	Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	FT	Yes; Yes; Yes
Floodplain Administrator	FT	Yes; Yes; Yes
Emergency Manager	PT	Yes; Yes; Yes
Community Planner	FT	Yes; Yes; Yes
Civil Engineer	FT	Yes; Yes; Yes
GIS Coordinator	PT	Yes; Yes; Yes
Other	N/A	N/A
Technical	Yes/No	Describe capability Has capability been used to assess/mitigate risk in the past?
Warning systems/services (Reverse 911, outdoor warning signals)	Yes	1. Reverse 911 and outdoor warning system 2. Yes
Hazard data and information	Yes	Required access to MSDS as well as BOSF railway
Grant writing	No	
Hazardous analysis	Yes	Access to level 1-3 hazard analysis
Other	N/A	
How can these capabilities be expanded and improved to reduce risk?		
Keeping abreast of the most updated information and practice utilizing these tools.		

Financial

Funding Resources	Access/ Eligibility (Yes/No)	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital Improvements project funding	Yes	1. Infrastructure 2. Yes
Authority to levy taxes for specific purposes	Yes	1. Raise property taxes; bonds 2. Yes
Fees for water, sewer, gas or electric services	Yes	1. Water and sewer 2. No
Impact fees for new development	Yes	1. Yes – New Construction 2. No
Storm water utility fee	N/A	N/A
Incur debt through general obligation bonds and/or special tax bonds	Yes	1. Infrastructure 2. No
Incur debt through private activities	No	
Community Development Block Grant	Yes	1. Yes 2. Yes
Other federal funding programs	No	
State funding programs	Yes	1. Infrastructure 2. Yes
Other	N/A	N/A
How can these capabilities be expanded and improved to reduce risk?		
Explore options for Federal Funding Opportunities		

The Finance Department is a crucial component to managing the financial aspect of implementing mitigation actions.

Education and Outreach

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organizations help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	Citizen Emergency Response Team
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Fire Marshal's office Community Development City Health Department
Natural disaster or safety related school programs	Yes	Garland Independent School District Wylie Independent School District
StormReady certification	Yes	Maintained by Emergency Management Yes
Firewise Communities certification	No	Implement 2016
Public-private partnership initiatives addressing disaster-related issues	Yes	Cert. and races Garland and Dallas County Health
Other	N/A	
How can these capabilities be expanded and improved to reduce risk?		
Garland and Dallas County Health for immunization, Community Emergency Response Team and RACES involvement in disaster response training.		

Safe Growth Audit

Comprehensive Plan	Yes	No
Land Use		
1. Does the future land-use map clearly identify natural hazard areas?	✓	
2. Do the land-use policies discourage development or redevelopment within natural hazard areas?	✓	
3. Does the plan provide adequate space for expected future growth in areas located outside natural hazard areas?	✓	
Transportation		
1. Does the transportation plan limit access to hazard areas?		✓
Work on implementing by 2014		
2. Is transportation policy used to guide growth to safe locations?	✓	
3. Are movement systems designed to function under disaster conditions (e.g., evacuation)?	✓	

Comprehensive Plan (continued)	Yes	No
Environmental Management		
1. Are environmental systems that protect development from hazards identified and mapped?	✓	
2. Do environmental policies maintain and restore protective ecosystems?	✓	
3. Do environmental policies provide incentives to development that is located outside protective ecosystems?	✓	
Public Safety		
1. Are the goals and policies of the comprehensive plan related to those of the FEMA Local Hazard Mitigation Plan?	✓	
2. Is safety explicitly included in the plan's growth and development policies?	✓	
3. Does the monitoring and implementation section of the plan cover safe growth objectives?	✓	

Zoning Ordinance	Yes	No
1. Does the zoning ordinance conform to the comprehensive plan in terms of discouraging development or redevelopment within natural hazard areas?	✓	
2. Does the ordinance contain natural hazard overlay zones that set conditions for land use within such zones?	✓	
3. Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use?	✓	
4. Does the ordinance prohibit development within, or filling of, wetlands, floodways, and floodplains?	✓	
Subdivision Regulations	Yes	No
1. Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas?	✓	
2. Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources?		✓
3. Do the regulations allow density transfers where hazard areas exist?		✓

Capital Improvement Program and Infrastructure Policies	Yes	No
1. Does the capital improvement program limit expenditures on projects that would encourage development in areas vulnerable to natural hazards?	✓	
2. Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards?	✓	
3. Does the capital improvement program provide funding for hazard mitigation projects identified in the FEMA Mitigation Plan?	✓	
Other	Yes	No
1. Do small area or corridor plans recognize the need to avoid or mitigation natural hazards?	✓	
2. Does the building code contain provisions to strengthen or elevate construction to withstand hazard forces?	✓	
3. Do economic development or redevelopment strategies include provisions for mitigation natural hazards?	✓	
4. Is there an adopted evacuation and shelter plan to deal with emergencies from natural hazards?	✓	

Questions adapted from Godschalk, David R. Practice Safe Growth Audits, Zoning Practice, Issue Number 10, October 2009, American Planning Association. <http://www.planning.org/zoningpractice/open/pdf/oct09.pdf>.

National Flood Insurance Program (NFIP)

NFIP Topic	Source of Information	Comments
Insurance Summary		
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	61 policies, \$16.54M in total premiums
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	FEMA NFIP or Insurance Specialist	4 paid loses, totaling \$45,937.42, with none for substantial damage
How many structures are exposed to flood risk within the community?	Community Floodplain Administrator (FPA)	61 known
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA and FEMA Insurance Specialist	None known at this time
Staff Resources		
Is the Community FPA or NFIP Coordinator certified?	Community FPA	Not at this time
Is floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	The acting Community FPA is the City Engineer. The City Engineer provides oversight and engineering review of public and private infrastructure and land development projects, including roadway, utility, and drainage improvements.
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	None at this time
Compliance History		
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		None known
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?		Information not available
Is a CAV or CAC scheduled or needed?		No

NFIP Topic	Source of Information	Comments
Regulation		
When did the community enter the NFIP?	Community Status Book http://www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-community-status-book	1978
Are the FIRMs digital or paper?	Community FPA	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Yes – the minimum allowable elevation of a structure above the 100 – year base flood elevation is 2 feet.
Provide an explanation of the permitting process.	Community FPA, State, FEMA NFIP Flood Insurance Manual http://www.fema.gov/flood-insurance-manual Community FPA, FEMA CRS Coordinator, ISO representative CRS manual http://www.fema.gov/library/viewRecord.do?id=2434	The Building Official requests that the City Engineer review all building permit requests on property that appears to be within, adjacent to, or near the limits of the 100-year floodplain of any creek, stream, or drainage channel as shown on the FEMA FIRM Maps. The City Engineer reviews the permit request, all available plans submitted with the request, and all available online and paper resources (including the FEMA FIRM Maps). The City Engineer makes a determination on whether the proposed structure and/or improvements are in or out of the floodplain. If a proposed structure is found to be within the limits of the floodplain, a building permit is not issued unless and until the applicant can demonstrate that the limits of the floodplain have been revised through the CLOMR/LOMR, or other appropriate process, and the structure is no longer in the floodplain, and is at least 2 feet above the adjacent base flood elevation for the 100-year storm.
Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
What is the community's CRS Class Ranking?	Flood Insurance Manual http://www.fema.gov/flood-insurance-manual	N/A
What categories and activities provide CRS points and how can the class be improved?		N/A
Does the plan include CRS planning requirements	Community FPA, FEMA CRS Coordinator, ISO representative CRS manual	No

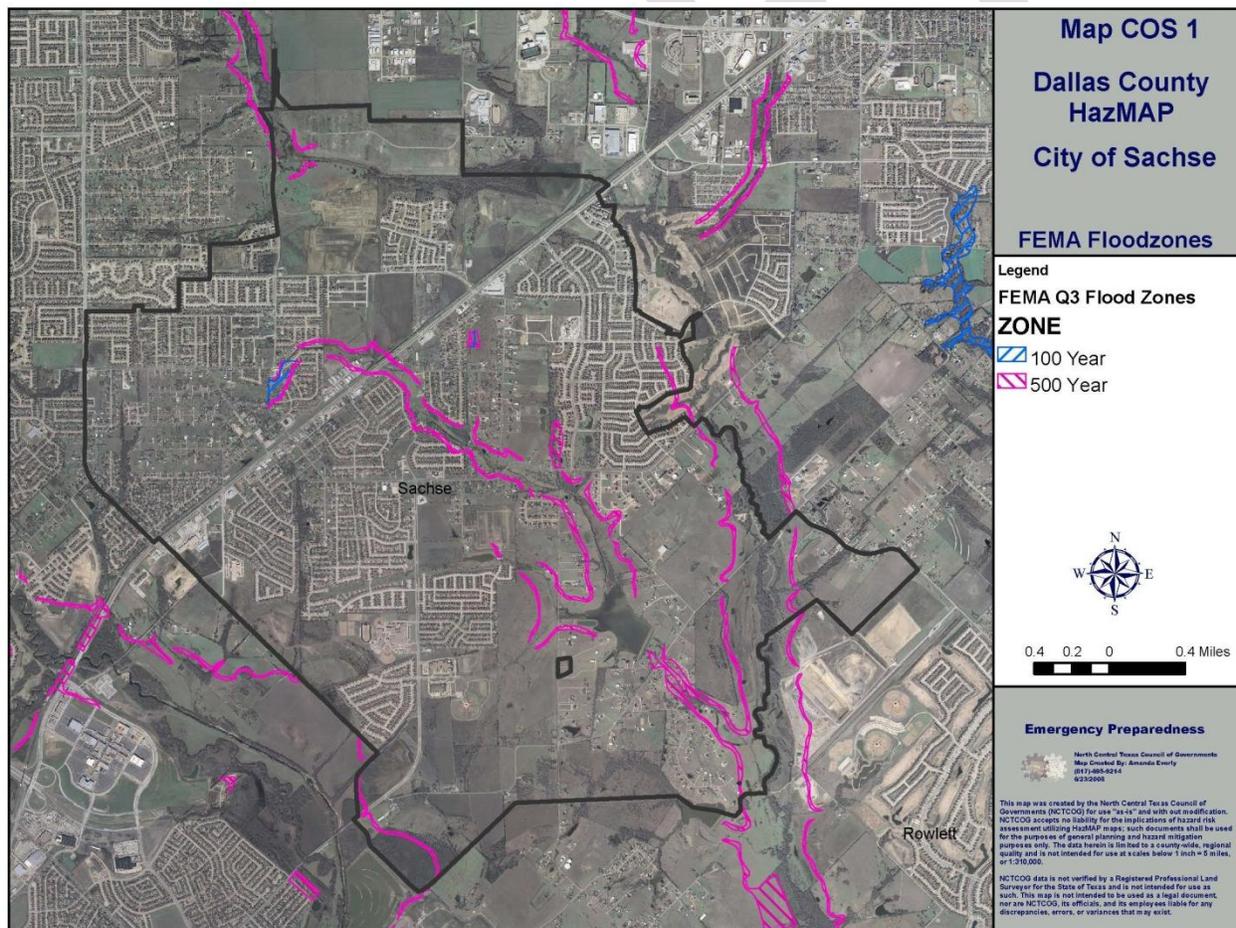
4. Hazard Assessment and Risk Assessment:

4.1. Flooding: Just as was identified in the 2009 HazMAP, flooding continues to be the primary natural disaster to be faced by the City of Sachse. Rowlett Creek, Maxwell Creek, Long Branch of Muddy Creek, Willow Lake and Muddy Creek as well as its tributaries run through the city. The city has taken some measures to reduce the incidents of flooding within the city which have been addressed in the last plan and in this document.

Areas that have proved problematic in causing more road closure issues as opposed to homes or businesses damages include Highway 78, Merritt Road and Sachse Road. These roads often require to be closed due to flooding, though this limits many of our evacuation routes should other hazard events occur. Floodways near homes are being addressed to alleviate storm water drainage problems. New construction cannot be built in the floodway and those built in the flood plain must be flood proofed two feet above Base Flood Elevation (BFE).

Map COS1 depicts the City of Sachse 100 and 500 year floodplain

Map COS 1: City of Sachse Floodplain



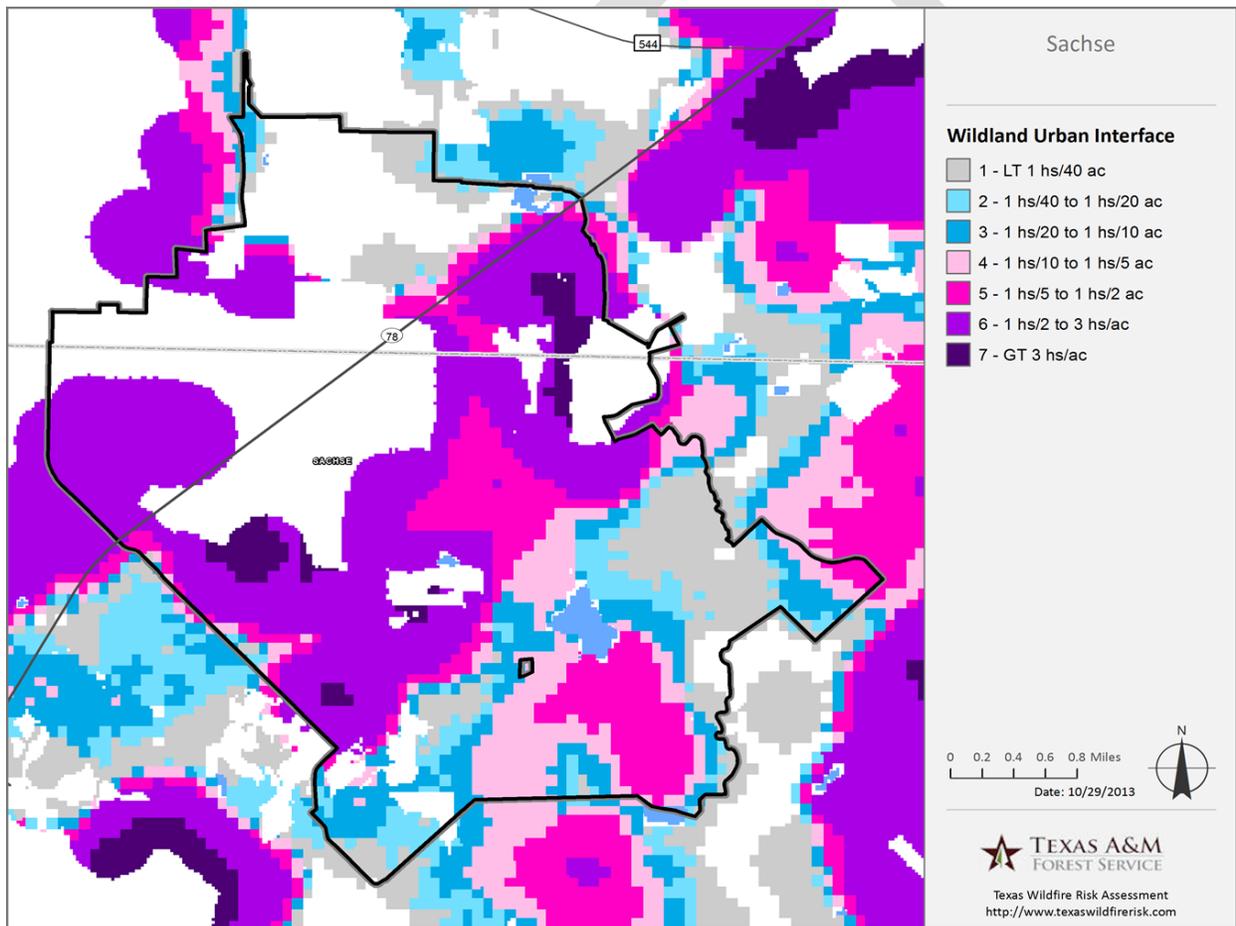
Source: North Central Texas Council of Governments

4.2. Wildland Urban Interface (WUI): Texas is one of the fastest growing states in the Nation, with much of this growth occurring adjacent to metropolitan areas. This increase in population across the state will impact counties and communities that are located within the Wildland Urban Interface (WUI). The WUI is described as the area where structures and other human improvements meet and intermingle with undeveloped wildland or vegetative fuels. Population growth within the WUI substantially increases the risk from wildfire. In Texas nearly 85 percent of wildfires occur within two miles of a community.

According to the Texas Forest Services (TFS), it is estimated that 8,599 people or 50 percent of the total project area population (17,049) live within the WUI. The Wildland Urban Interface (WUI) Map below reflects housing density depicting where humans and their structures meet or intermix with wildland fuels.

Map SC 2 depicts the WUI for the City of Sachse.

Map SC 2: City of Sachse’s Wildland Urban Interface



The Wildfire Threat for the City of Sachse ranges from Non-Burnable to High. This is according to the vulnerability assessment conducted using the Texas Wildfire Risk Assessment Tool (TxWRAP) developed by the Texas Forest Service.

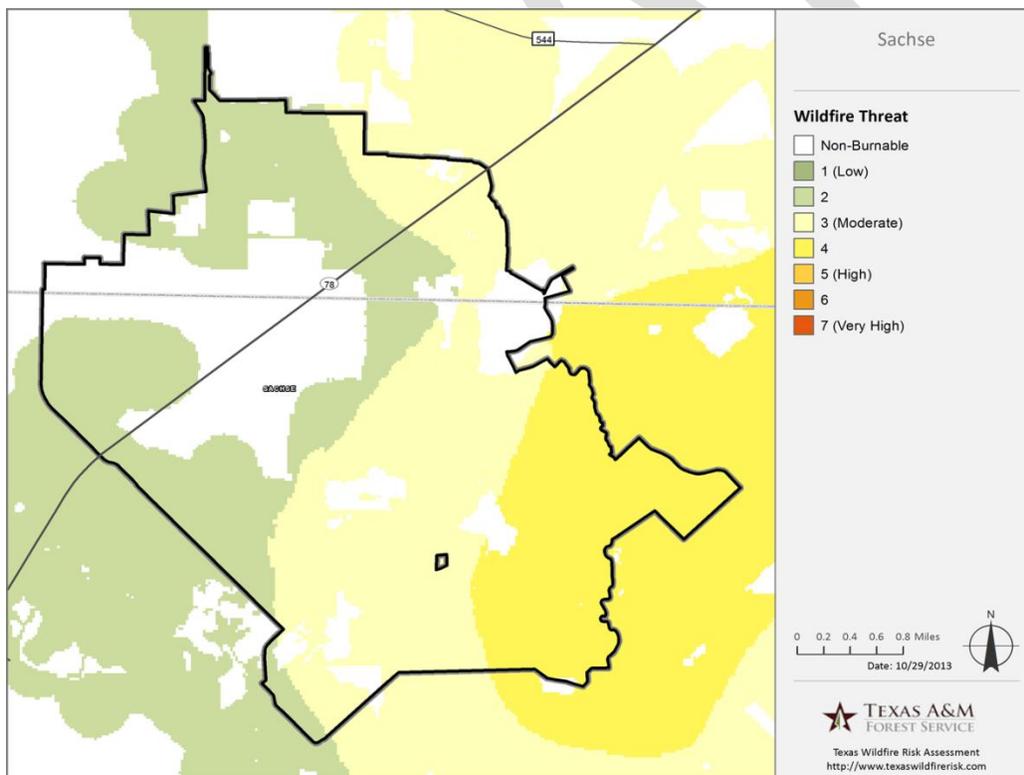
Wildfire Threat is the likelihood of a wildfire occurring or burning into an area. Threat is derived by combining a number of landscape characteristics including surface fuels and canopy fuels, resultant fire behavior, historical fire occurrence, percentile weather derived from historical weather observations,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

The measure of wildfire threat used in the Texas Wildfire Risk Assessment (TWRA) is called Wildland Fire Susceptibility Index, or WFSI. WFSI combines the probability of an acre igniting (Wildfire Ignition Density) and the expected final fire size based on rate of spread in four weather percentile categories. WFSI is defined as the likelihood of an acre burning. Since all areas in Texas have WFSI calculated consistently, it allows for comparison and ordination of areas across the entire state. For example, a high threat area in East Texas is equivalent to a high threat area in West Texas.

To aid in the use of Wildfire Threat for planning activities, the output values are categorized into seven (7) classes. These are given general descriptions from Low to Very High threat.

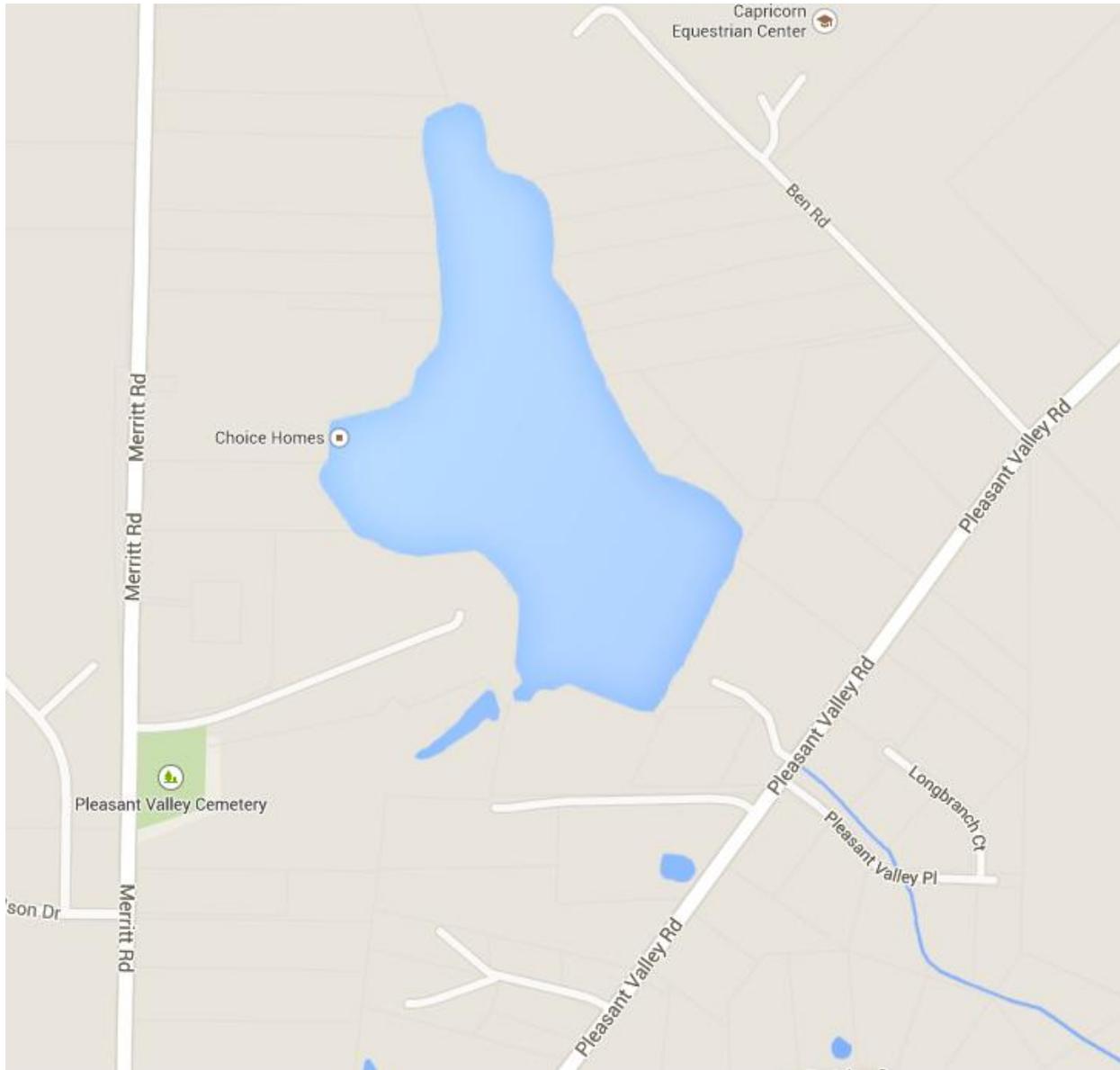
The threat map below is derived at a 30 meter resolution. This scale of data was chosen to be consistent with the accuracy of the primary surface fuels dataset used in the assessment. While not appropriate for site specific analysis, it is appropriate for regional, county or local protection mitigation or prevention planning.

Map SC 3: City of Sachse Wildfire Threat



Dam and Levee Failure: The City of Sachse HMPT identified the Soil Conservation Service Site 10 Reservoir. The Reservoir is located off Pleasant Valley Road and West of Merritt Road and West of Ben Road. Map SC 4 depicts the location of the Reservoir.

Map SC 4: Location of Soil Conservation Service Site 10 Reservoir



This reservoir is not considered of any significant risk.

5. Vulnerability Assessment: The tables below provide a summary inventory of the critical and essential infrastructure for the City of Sachse.

Essential Infrastructure Summary Report for the City of Sachse

Essential/Critical Facilities	Locations (GIS Coordinates)	Count
Hospitals	N/A	0
Schools	Sachse High 32°57'40.61"N 96°35'6.89"W Hudson 32°57'31.73"N 96°34'52.38"W Sewell 32°57'25.80"N 96°34'53.78"W Armstrong 32°57'59.40"N 96°36'0.16"W Cox 32°59'5.29"N 96°34'7.88"W Whitt 32°59'25.64"N 96°35'14.47"W	6
Police Stations	32°58'32.34"N 96°35'3.77"W	1
Fire Stations	Station 1 32°58'32.34"N 96°35'3.77"W Station 2 32°59'22.27"N 96°35'43.30"W	2
Emergency Operations Facilities	32°58'32.34"N 96°35'3.77"W	1
Dams (Moderate to High Hazard)	32°57'37.63"N 96°33'44.62"W	1
Hazardous Materials Sites		0
Military Institutions		0
Nuclear Power Plants		0
Water Treatment Facility		0
[Insert Other Facilities as appropriate]		
	Latitude is the first listing, Longitude is the second	

Structure/Property and Flood Vulnerability

Category of Property in Jurisdiction	Total Value of Properties	FEMA Flood Zone 100 or 500	Flood Overlay Zone Within/Outside
Residential	Should be listed in Dam Plan on file		
Commercial	n/a		
Industrial	n/a		
Government / Public	n/a		

6. Mitigation Strategies: Based on the results of the risk and capability assessments, the Dallas County Hazard Mitigation Planning Team developed a mitigation strategy for the Plan Update utilizing the results of both assessments as well as reviewing the goals and objectives that were included in the 2009 HazMAP. These strategies were similar to the goals identified in Section 6 by the Dallas County Hazard Mitigation Action Plan Working Group.

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

- o **Objective 1-A:** Continue to enforce building codes and ordinances where applicable to ensure structures are more disaster resistant
- o **Objective 1-B:** Maintain existing codes and ordinances that require front end mitigation of hazards

- **Objective 1-C:** Limit development in flood plain areas

Goal 2: Identify and implement hazard mitigation projects to reduce the impact of hazard events and disaster.

- **Objective 2-A:** Identify areas where repetitive damages occur during chronic hazard events
- **Objective 2-B:** Incorporate disaster resistant features in government facilities and infrastructure
- **Objective 2-C:** Expand and coordinate Early Warning Systems currently in use.

Goal 3: Increase public support and understanding of hazard mitigation and disasters.

- **Objective 3-A:** Provide public education materials to residents and private sector
- **Objective 3-B:** Encourage private sector participation in future mitigation efforts
- **Objective 3-C:** Encourage public participation in future mitigation efforts
- **Objective 3-D:** Heighten public awareness for natural and man-made hazards

Goal 4: Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards

- **Objective 4-A:** Increase participation in the National Flood Insurance Program (NFIP) and Community Rating System (CRS)

Goal 5: Continue to build capacity for hazard mitigation in the City of Sachse

- **Objective 5-A:** Continue partnerships within the Hazard Mitigation Planning Team and other partners to enhance mitigation planning efforts
- **Objective 5-B:** Identify federal and state programs that provide financial assistance to help attract funds for mitigation projects and programs
- **Objective 5-C:** Promote land use for public recreation

7. Action Items: Below is a list of the new actions items identified for the HazMAP Update. Each of the actions in this section were prioritized based on FEMA's STAPLE+E criteria, which includes considering the social, technical, administrative, political, legal, economic and environmental factors necessary for the implementation of each action. As part of the STAPLE+E analysis economic considerations were weighed for each action. The action items that were said to be ongoing or deferred in the previous HazMAP were included as action items in the Updated Plan. The updated actions items are as follows:

Sachse	Through effective land use, establish City Parks along low-lying areas Capital Improvement Plan, City of Sachse Park and Open Space Master Plan and Building Restrictions to reduce losses and repetitive damage.
Objective(s) Addressed	1-A
Hazard(s) Addressed	Flooding
Priority (High, Medium, Low):	Medium
Estimated Cost	Unknown
Potential Funding Sources	HMGP, PDM, City Budget
Lead Agency/Department Responsible	Public Works
Implementation Schedule	2 Years after funding

Sachse	Sachse replace the 8 outdoor, severe weather sirens to ensure 100% coverage over the entire city. These sirens will be used in alerting the people who live and work in Sachse of impending severe weather situations.
Objective(s) Addressed	2D
Hazard(s) Addressed	Tornado/High Winds
Priority (High, Medium, Low):	Medium
Estimated Cost	\$500 Thousand
Potential Funding Sources	City Budget, HMGP
Lead Agency/Department Responsible	OEM
Implementation Schedule	2 years

Sachse	Coordinate with Dam owners to attain proper Inundation Studies for Dam Safety. Establish Action Items which prove to be more cost efficient.
Objective(s) Addressed	2-A, 2-C, 3-B
Hazard(s) Addressed	Dam
Priority (High, Medium, Low):	Low
Estimated Cost	Unknown
Potential Funding Sources	City Funds
Lead Agency/Department Responsible	Emergency Management Department
Implementation Schedule	Within Two Years

Sachse	Purchase a series of lightning prediction devices to be deployed around Parks and Schools. Not only would these provide advance warning to those in the area but the cumulative data collected by these devices will allow Sachse to identify additional action items tailored to mitigating the lightning hazard.
Objective(s) Addressed	5A
Hazard(s) Addressed	Lightning
Priority (High, Medium, Low):	Medium
Estimated Cost	\$30,000
Potential Funding Sources	HMGP, City Budget
Lead Agency/Department Responsible	OEM
Implementation Schedule	Within One year of funding

Sachse	Flood Protection Study: To reduce inundation of multiple arterial though fares near Long Branch of Muddy Creek
Objective(s) Addressed	2A
Hazard(s) Addressed	Flooding/Stream bank Erosion
Priority (High, Medium, Low):	High
Estimated Cost	\$150,000
Potential Funding Sources	HMPG, City Budget
Lead Agency/Department Responsible	City Engineer
Implementation Schedule	Within Two years of funding

Sachse	Make improvements to levee, channel and construct culvert improvements on Merritt Road near Willow Lake to reduce overtopping of road.
Objective(s) Addressed	2A
Hazard(s) Addressed	Flooding/Stream bank Erosion
Priority (High, Medium, Low):	High
Estimated Cost	\$1 Million
Potential Funding Sources	HMPG, City Budget
Lead Agency/Department Responsible	City Engineer
Implementation Schedule	Within Two years of funding

Sachse	Voluntary Purchase of property Woodbridge Parkway, Sachse and Merritt Roads
Objective(s) Addressed	2A
Hazard(s) Addressed	Flooding/Stream bank Erosion
Priority (High, Medium, Low):	High
Estimated Cost	\$1 Million
Potential Funding Sources	HMPG, City Budget
Lead Agency/Department Responsible	City Engineer
Implementation Schedule	Within Two years of funding

Sachse	Channel improvements to Long Branch of Muddy Creek at Woodbridge Parkway, Sachse and Merritt Roads.
Objective(s) Addressed	2A
Hazard(s) Addressed	Flooding/Stream bank Erosion
Priority (High, Medium, Low):	High
Estimated Cost	\$3 Million
Potential Funding Sources	HMPG, City Budget
Lead Agency/Department Responsible	City Engineer
Implementation Schedule	Within Two years of funding

Sachse	Culvert and roadway improvements to Long Branch of Muddy Creek at Sachse and Bailey Roads.
Objective(s) Addressed	2A
Hazard(s) Addressed	Flooding/Stream bank Erosion
Priority (High, Medium, Low):	High
Estimated Cost	\$1 Million
Potential Funding Sources	HMPG, City Budget
Lead Agency/Department Responsible	City Engineer
Implementation Schedule	Within Two years of funding

Sachse	Implement the Texas Individual Tornado Safe Room Rebate Program
Objective(s) Addressed	3A
Hazard(s) Addressed	Tornados
Priority (High, Medium, Low):	Low
Estimated Cost	50% of (up to) \$2,500 per shelter. Number of shelters to be determined
Potential Funding Sources	City Budget, HMGP, PDM, Homeowner, Work in kind
Lead Agency/Department Responsible	Responsible Building Inspections Department, Emergency Management, HMC
Implementation Schedule	Within two years of funding

Sachse	Develop a Public Education Program which will inform and educate citizens concerning the potential risks from an Earthquake event and how to mitigate their homes and business.
Objective(s) Addressed	3-A
Hazard(s) Addressed	Earthquake
Priority (High, Medium, Low):	Low
Estimated Cost	\$3,000
Potential Funding Sources	City Budget, HMGP
Lead Agency/Department Responsible	Emergency Management
Implementation Schedule	Within two years of funding

Sachse	Develop a Public Education Program which will inform and educate citizens concerning the effects of Drought. Provide information on home and business water conservation methods as a means to reduce the severity of Drought.
Objective(s) Addressed	3-A
Hazard(s) Addressed	Drought
Priority (High, Medium, Low):	Low
Estimated Cost	\$3,000
Potential Funding Sources	City Budget, HMGP
Lead Agency/Department Responsible	Emergency Management
Implementation Schedule	Within two years of funding

8. Plan Maintenance: The City of Sachse Department Emergency Management Department will be responsible for ensuring that this plan is monitored on an on-going basis. The Emergency Management Coordinator will call the City of Sachse Hazard Mitigation Team (HMPT) together on an annual basis to review the mitigation actions set forth in this plan and discuss progress. During this meeting the HMPT will develop a list of items to be updated/added in future revisions of this plan.

The Emergency Management Coordinator will report the outcomes of the HMPT to the Dallas County Office of Homeland Security and Emergency Management and when needed to the City's Administration. Sachse's HMPT will also focus on evaluating the Plan in light of technological, budgetary, and political changes that may occur during the year or other significant events.

Major disasters affecting the City of Sachse or its communities, legal changes, and other events may trigger a meeting of the Hazard Mitigation Action Plan Working Team. This working group will be responsible for determining if the plan should be updated.

The City of Sachse is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The City of Sachse will be a strong advocate that jurisdictions within the Dallas County should continue to work together on updating this multi-jurisdictional plan.

The public will continue to be involved whenever the plan is updated and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the City will provide the opportunity for the public to comment on the updates. A public notice will be published prior to the meeting to announce the comment period and meeting logistics. Moreover, the City of Sachse will engage stakeholders in community emergency planning.

The City of Sachse has several other city plans which were considered during the mitigation planning process. These include Federal Emergency Management Agency (FEMA) Maps, City of Sachse Comprehensive Plan, Future Land Use and Thoroughfare Plans, Emergency Operations Plan, Capital Improvement Program (CIP) including current zoning plan, adopted building codes and amendments and City of Sachse Ordinances. The Hazard Mitigation Team will continue to use these plans as guidance in determining gaps in the capabilities of the city as well as developing goals and mitigation action items in response to the vulnerability assessment.

9. Jurisdiction Appendix

- a. HIRA
- b. Supporting Documentation
- c. Complete Survey Results

Appendix A-1: Hazard Identification and Risk Assessment (HIRA) Matrix

Scale	
Low/Unlikely Event probable next 10 years	1
Average/Occasional Event possible next 5 years	2
Medium/Moderate/Likely Event possible next 3 years	3
High/Highly Likely Event Possible next year	4



Scale	
Low	1
Medium/Moderate	2
High	3
Catastrophic	4

Hazard Identification and Risk Assessment (HIRA)

Date:

Hazard	Probability	Frequency	Severity	Risk Factor	People	Property	Environment	Potential Damage	Total Vulnerability
	(P/F)*S=RF				People + Property + Environment = Potential Damage (PD)				RF/PD=V
Severe Storms	4	4	3	3	3	3	1	7	2.3
Tornado	2	1	3	6	3	4	2	9	1.5
Hail	4	4	1	1	1	2	1	4	4
Flooding	2	4	2	1	2	3	2	9	9
Extreme Temperatures	4	4	1	1	2	2	1	5	5
Winter Storms	2	1	2	4	2	3	1	6	1.5
Wildfire	2	2	1	1	1	2	3	6	6
Energy/Fuel Shortage	1	1	1	1	2	1	2	5	5
Lightning	4	4	2	2	1	3	1	5	2.5
Terrorist Attack	1	1	1	1	4	2	2	8	8
Urban Fire	1	1	1	1	1	1	1	3	3
Earthquake	1	1	3	3	2	4	2	8	2.6
Levee/Dam Failure	1	1	2	2	3	3	2	8	4
Drought	4	4	3	3	3	3	2	8	2.6
Aircraft Accident	1	1	4	4	4	2	2	8	.5
Stream Bank Erosion	4	2	2	4	2	4	2	8	2

Appendix B-1: Supporting Documentation

Plan Incorporation

The City of Sachse has several other city plans which were considered during the mitigation planning process. These include: Federal Emergency Management Agency (FEMA) Maps; City of Sachse Comprehensive Plan, which includes Future Land Use and Thoroughfare Plans; Emergency Operations Plan; Capital Improvement Program (CIP); current zoning plan, adopted building codes and amendments; City of Sachse Ordinances and the Dallas County Dam Mitigation study. The Hazard Mitigation Team used these plans as guidance in determining goals and mitigation action items in response to the vulnerability assessment for the City of Sachse.

Appendix C-1: City of Sachse Outreach Materials

Appendix C-2: City of Sachse Survey Responses

1. Please select your jurisdiction from the list. You may only select one jurisdiction for each survey completed. If you belong to more than one jurisdiction in this list, please complete multiple surveys.

✓ Total number of responses submitted from the citizens of the City of Sachse - 23

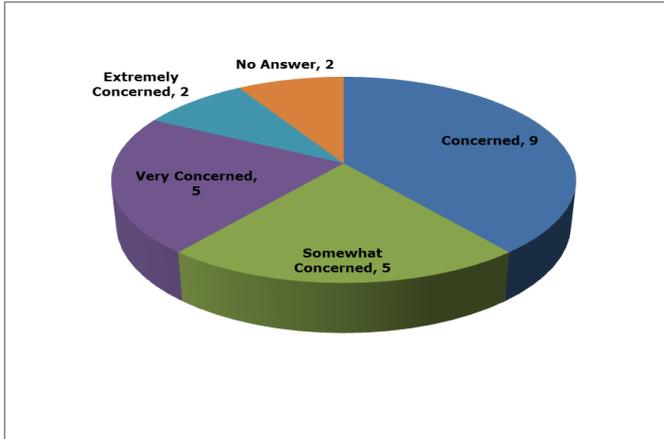
2. Have you ever experienced or been impacted by a disaster?



If yes, please indicate what the hazard you have endured and where and when it occurred.

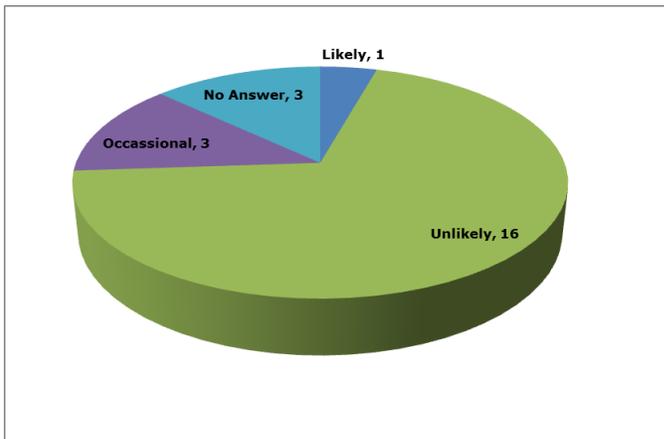
- ✓ Winter Storms - Topsham ME Earthquakes - California (3) Wildfires - California
- ✓ Flood. Fort Worth, 1989
- ✓ Tornado, Crosby TX 1980
- ✓ 1993 Mother's Day Tornado
- ✓ In about 2002 we had a significant storm system come through with up to softball size hail and winds over 50mph.
- ✓ Tornado, Garland, December 1984 Tornado, Sachse, May 1995(?)
- ✓ Sachse tornado f 1993
- ✓ Hurricane Allen - Weslaco, Texas and flooding in Staten Island, New York

3. How concerned are you about the possibility of your community or jurisdiction being impacted by a disaster?

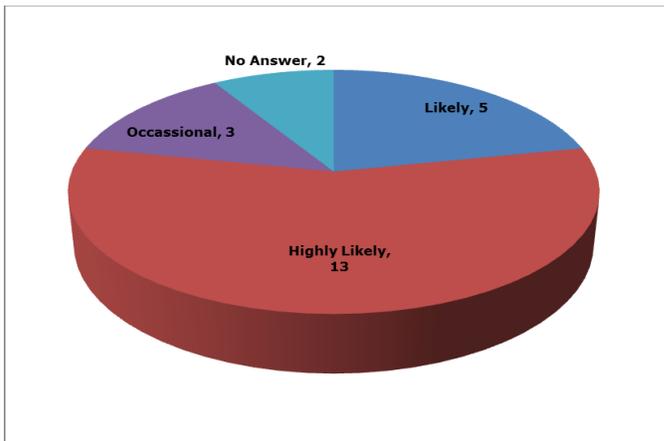


4. The hazards addressed in the Dallas County Hazard Mitigation Action Plan are listed below. Please indicate your opinion for each hazard to impact your jurisdiction (identified above). Please rate each Hazard as follows.

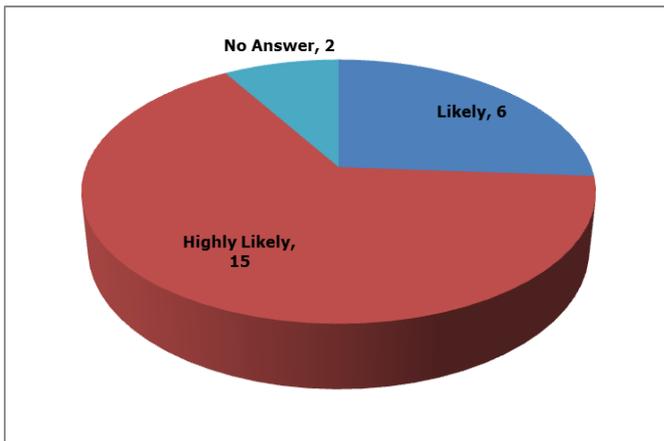
Earthquakes:



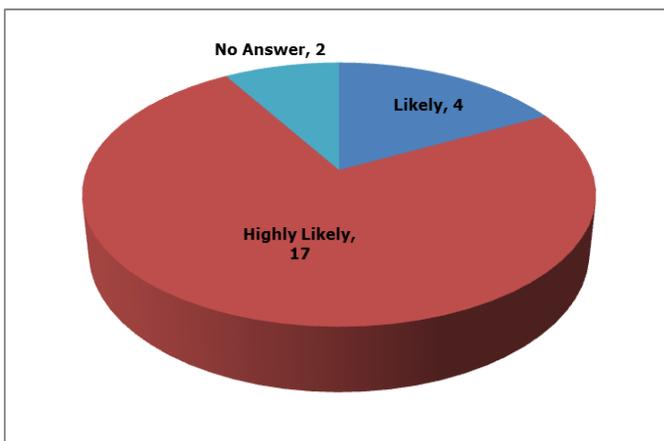
Tornado:



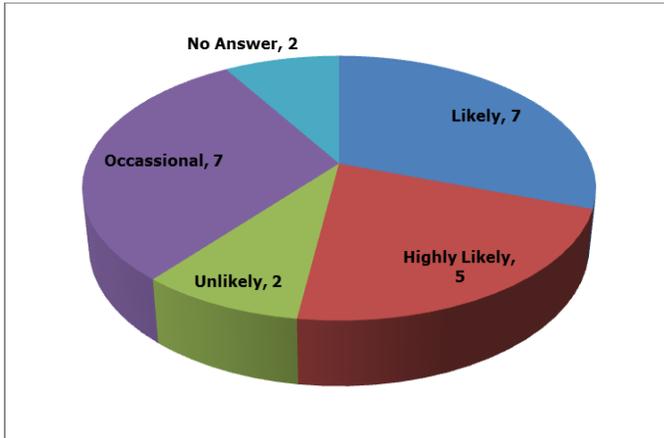
Hail:



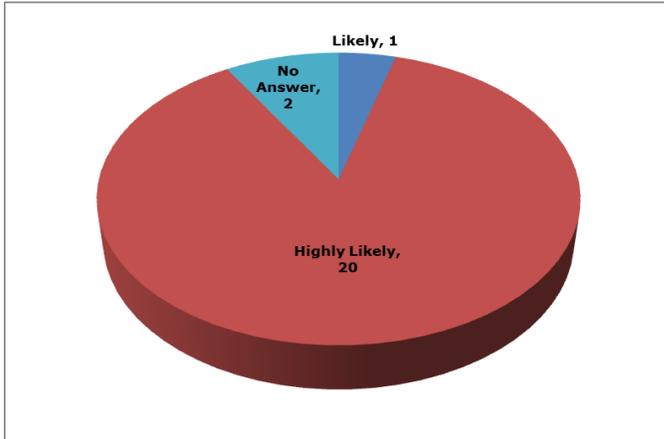
High Winds



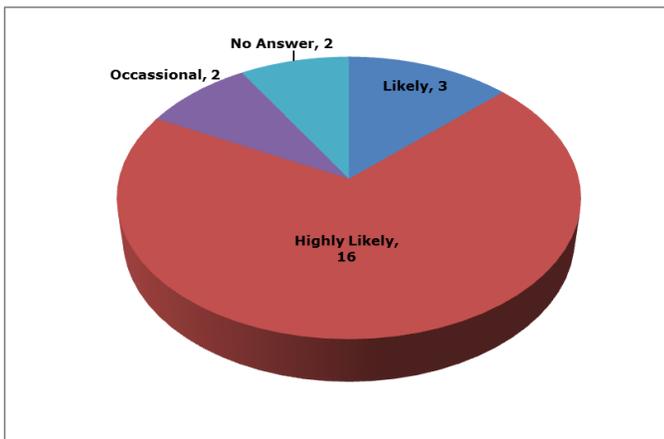
Winter Storms



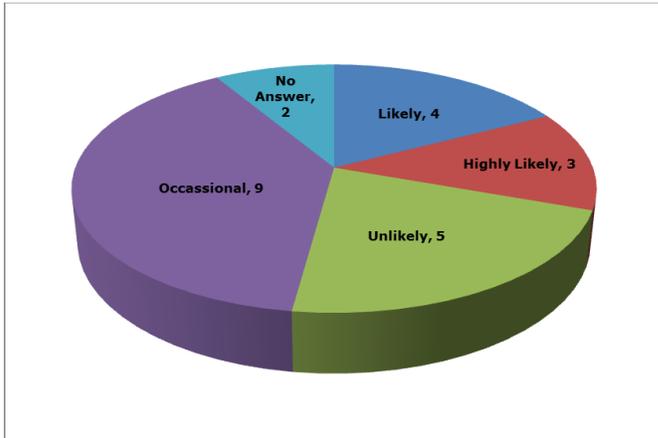
Summer Heat



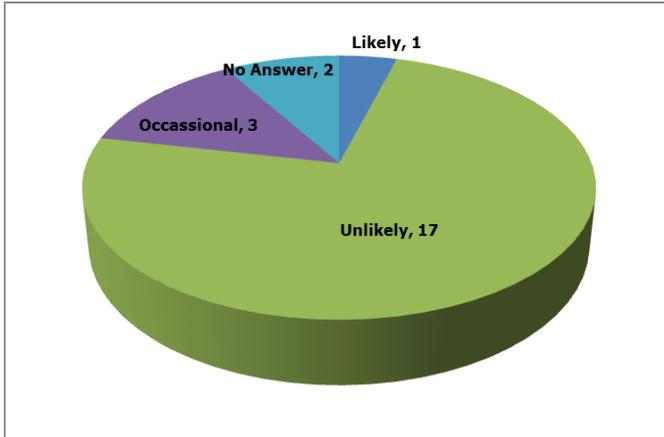
Drought



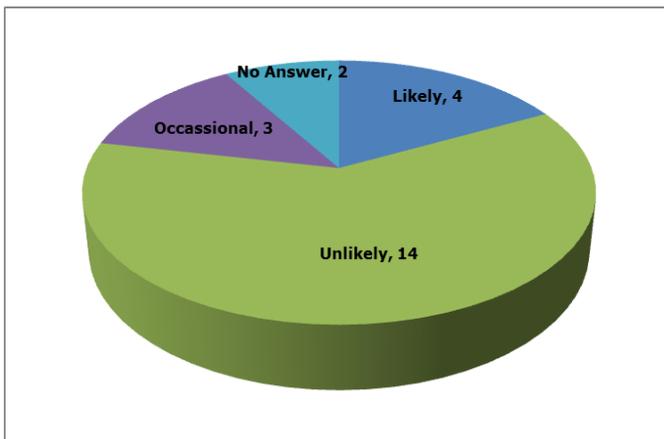
Flooding



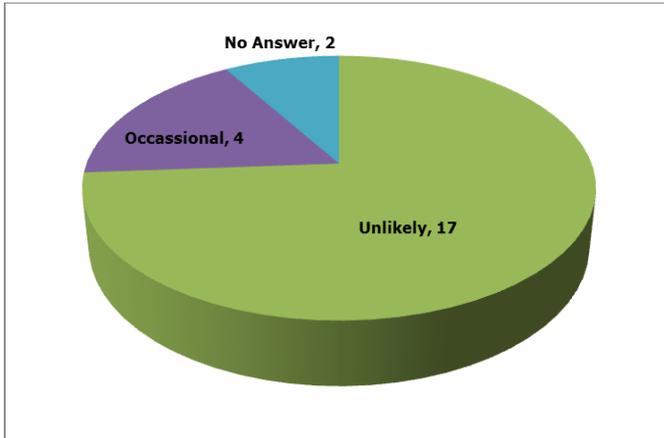
Dam Failure



Stream Bank Erosion

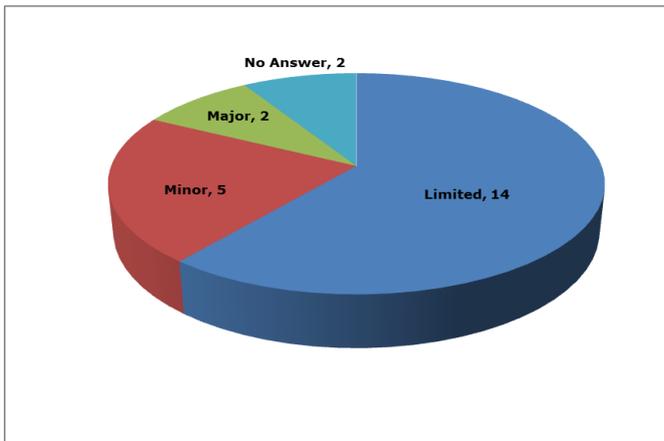


Levee Failure

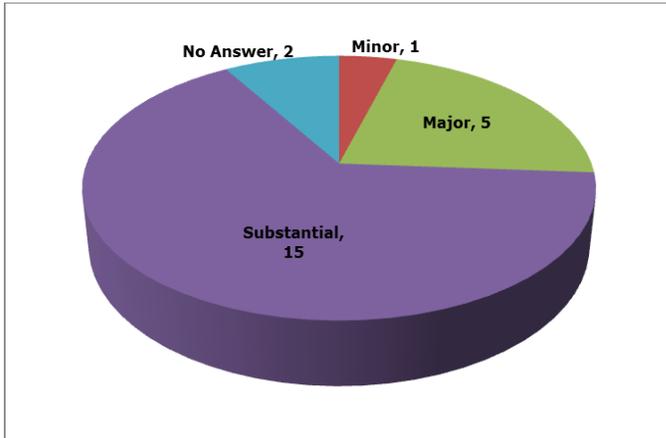


5. The hazards addressed in the Multi-Jurisdictional Hazard Mitigation Plan are listed below. Please indicate your opinion on the potential magnitude or impact of each hazard's impact on YOUR JURISDICTION (identified above). Please rate EACH hazard as follows.

Earthquakes



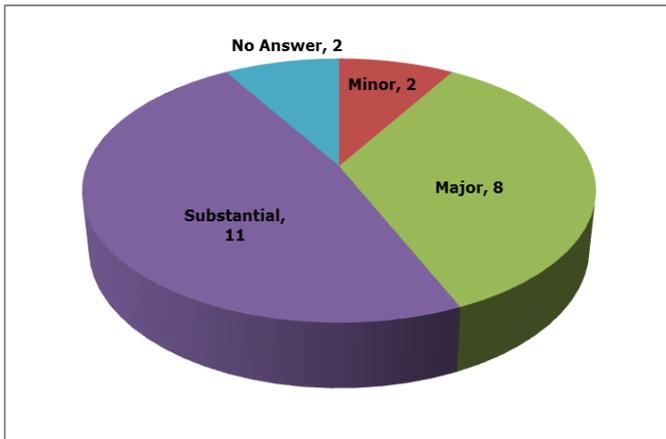
Tornado



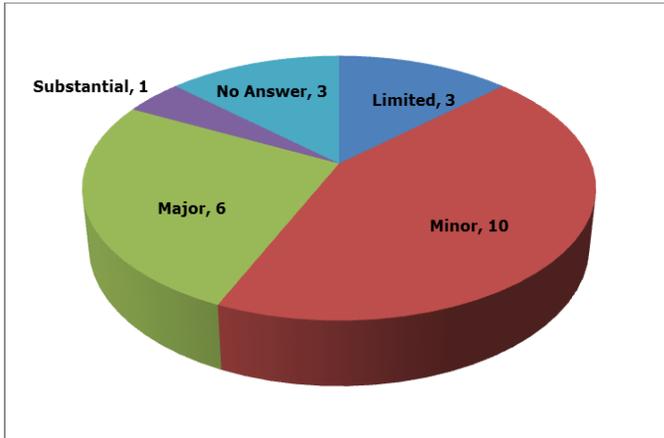
Hail



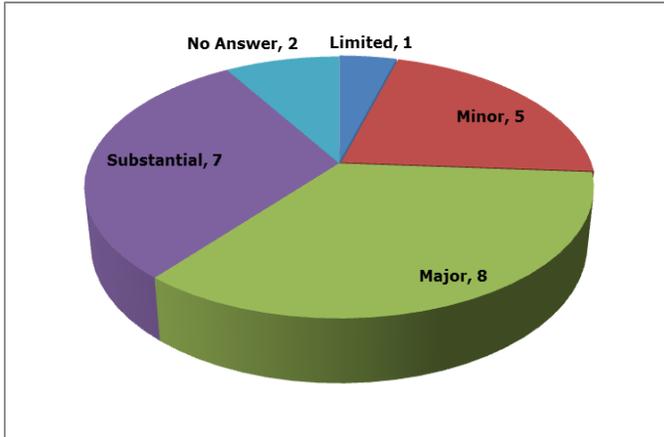
High Winds



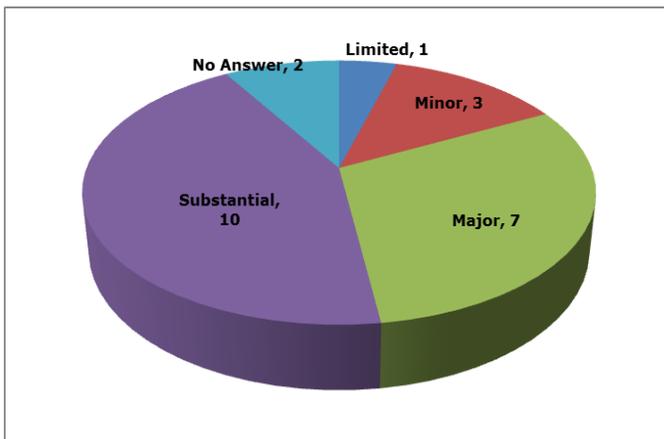
Winter Storms



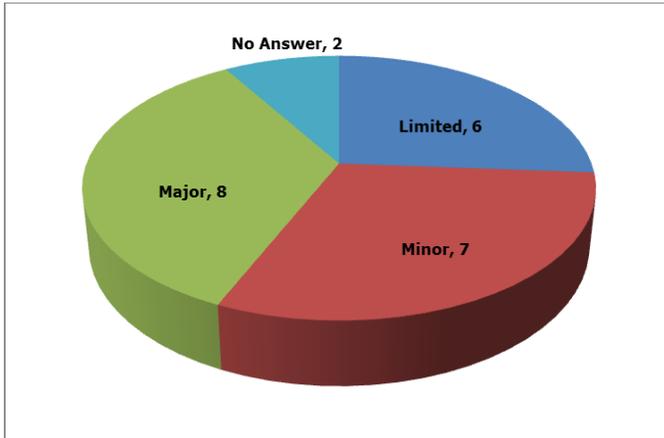
Summer Heat



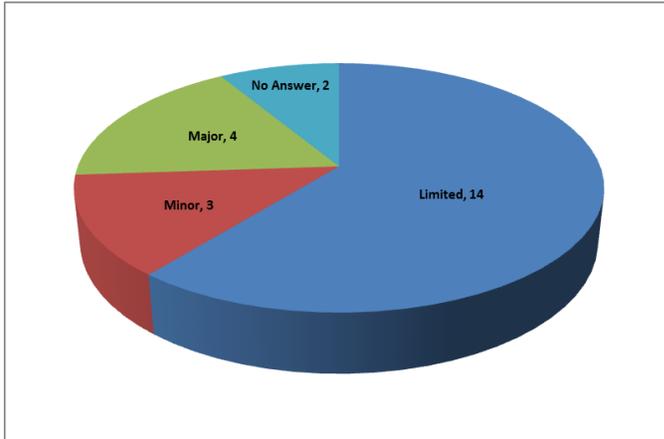
Drought



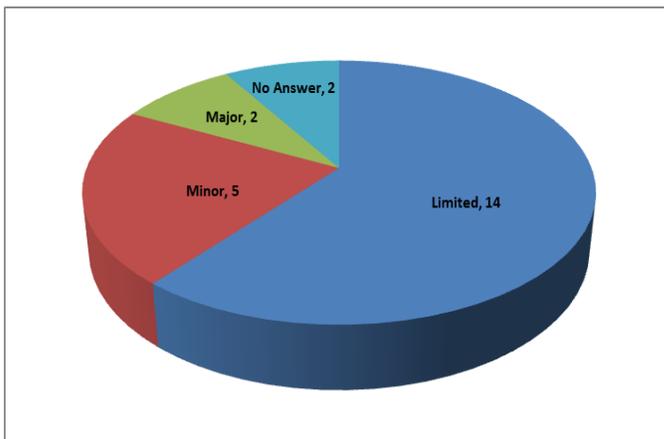
Flooding



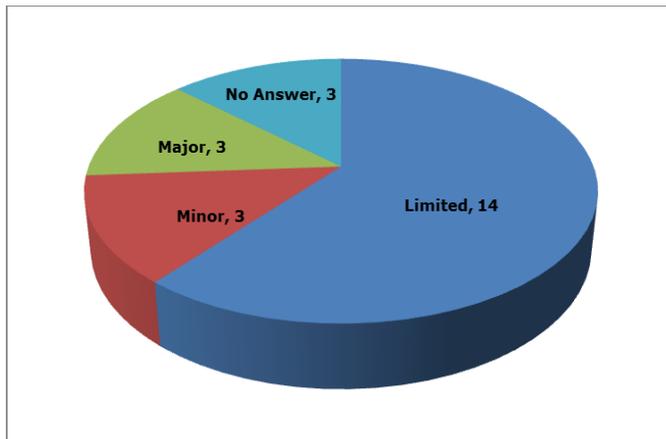
Dam Failure



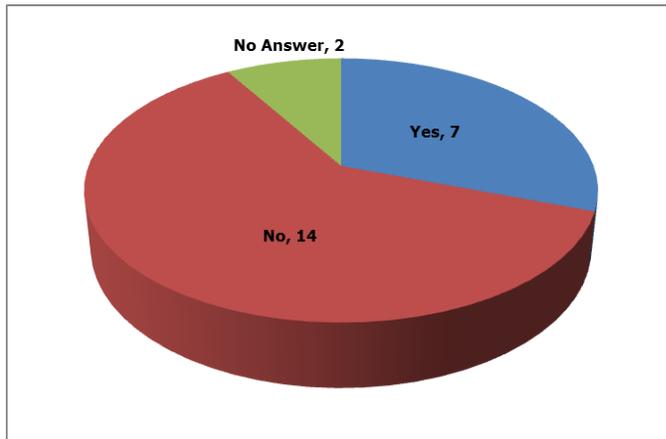
Stream Bank Erosion



Levee Failure



6. Is there another hazard not listed above that you think is a wide-scale threat to your jurisdiction?



If "Yes", please list the hazard(s) you think are a wide-scale threat that are not listed. Also rate each hazard you list above using the criteria description provided i.e. Occurrence (Unlikely, Occasional, Likely or Highly Likely); Severity or Impact (Low, Medium, High or Catastrophic); and Extent (Low, Medium, High or Catastrophic)

- ✓ Hazardous Chemical Spill – Major; Likely
- ✓ Transportation Accident (mass casualty incident - i.e. Train or bus - Highly likely, Major
- ✓ Terrorism – Unlikely; High
- ✓ Train Derailment (HazMat) – Occasionally; High
- ✓ Train derailment, hopefully never but could create high environmental impact depending on if it was a chemical incident.
- ✓ Wildland Fire – Occasional; Medium - Medium
- ✓ There is a major rail line that divides our city which carries a lot of hazardous materials. A derailment or situation on that rail line could have significant

impacts to our town with homes and businesses in very close proximity to that railway.

- ✓ Railroad that is 6 blocks away. A train derailment of chemicals that are transported through our area could lead to high severity to our community.
- ✓ Train Derailment (unlikely; major),
- ✓ Chemical spill on roadways (unlikely; major),
- ✓ Epidemic – flu (unlikely, low-medium),
- ✓ Terrorism (unlikely, high).

7. Below are broad mitigation strategies identified in the Dallas County Hazard Mitigation Action Plan (HazMAP) that are to address the hazards that affect the jurisdictions in the plan. In your opinion, please check which of these mitigation strategies do you believe could benefit your jurisdiction:

Answer Choices	Responses
Improve on Land Use Program	6
Flood Plain Management to include Localized Flood and Soil Erosion Reduction Projects (storm water management or localized flood control projects, and Cast in Place (CIP) Erosion Control):	9
Improve, adopt and enforce building codes:	9
Implement the Texas Individual Tornado Safe Room Rebate Program:	14
Expand and improve on programs such as the Community Emergency Response Teams (CERT) Training, Public Education and Public Awareness Programs:	20
Participate in the National Flood Insurance Program (NFIP) and Community Rating System (CRS) program:	6
Expanded use of CodeRED and other mass notification systems including outdoor warning siren system, and working better with the Nation Weather Service to monitor weather events:	17
Coordinate with Dam owners to conduct inundation studies of dams:	2
Water conservation strategies to include passing resolutions restricting water use for lawn and landscape irrigation; provide low follow devices to property owners:	15
Purchase and improve on the Weatherization Assistance Program (WAP):	10
Conduct an earthquake vulnerability study:	4
Purchase and install lightning prediction and protection devices such as lightning arrestors and lightning rods to protect communications and utility infrastructure:	13
Purchase and install temperature monitoring devices on the elevated roadways that are susceptible to icing:	6
Structural Retrofitting of Existing Buildings:	4

Answer Choices	Responses
Total Respondents:	21

List any other strategies you think should be included in the plan:

- ✓ Modifications of zoning ordinances requiring irrigation systems. ...with water issues in this area irrigation systems in every yard is not a good idea. New technologies of drip irrigation or other methods could be options but cities put pretty yards rather than the water issues.
- ✓ Consider the feasibility and impact of finding/funding/building/encouraging community tornado shelters. Perhaps new communities, especially those with an HOA could construct a group tornado shelter for the whole community, as not everyone can build them on their property (including because of HOA restrictions on what can be added onto a building height wise etc.) Perhaps they could be located near community pools, or in a community meeting building.

8. List any other strategies you think should be included in the plan (Open Ended Response)

- ✓ Programs focused on educating the public how to better prepare for emergencies.

