

CONCHO VALLEY COUNCIL OF GOVERNMENTS

HAZARD MITIGATION PLAN UPDATE



2012-2017

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Background

The Concho Valley Council of Governments (CVCOG) was established by the Texas Legislature in May of 1967 to address regional issues and opportunities. CVCOG is a voluntary association that encompasses twenty-eight jurisdictions, including thirteen counties and fifteen cities and towns. CVCOG was organized to strengthen local governments; provide a vehicle for joint and coordinated programs; and to create and enhance partnerships among local governments, private businesses and service organizations to collaboratively plan for and maintain the highest quality of life in the Concho Valley Region. The mission of the CVCOG is to:

Support each unit of local government in the Concho Valley Region. Seek to reach community goals and provide services in the most effective and efficient manner for the lowest possible cost. To assist in reaching this goal, the Concho Valley Council of Governments will strive to:

- *Share information about local community programs and initiatives that have successfully addressed and resolved problems experienced by one or more local governments;*
- *Identify areas where communities may wish to work together to achieve mutually desired goals and effective cost saving strategies;*
- *Learn about state and federal programs and how they may be accessed to further serve the citizens of each local unit of government; and*
- *Develop relationships among the various local government units that will serve to foresee and prevent future problems.*

CVCOG provides services for residents residing in the region for housing, workforce, and senior services programs. They also administer 2-1-1 Texas, planning and training for law enforcement, homeland security, head start, community and economic development, solid waste planning and grants, regional 9-1-1, and transportation planning and services.

In 2005, the CVCOG facilitated development of a Hazard Mitigation Action Plan (HMAP) approved by the Federal Emergency Management Agency (FEMA) entitled, *“Towards a Disaster Resistant Concho Valley.”* This HMAP was formed with technical assistance

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provided by CVCOG and H2O Partners, Inc. of Austin, Texas. Twelve counties and fourteen cities and towns participated in the initial HMAP.

Consistent with this vision, CVCOG took the lead in sponsoring the development of a comprehensive Hazard Mitigation Plan Update (“Plan” or “Plan Update”) for the cities and counties that participated in the 2005 HMAP, as well as any additional communities that wished to join as part of the Plan Update. The mitigation planning regulation of the Disaster Mitigation Act requires that mitigation plans be reviewed and revised within five (5) years of approval to maintain eligibility for mitigation grant funding¹. Therefore, CVCOG began the planning process to renew the HMAP and completely update each section of the original Plan.

Although CVCOG’s District covers a thirteen-county area, the Plan Update consisted of the original twelve counties and incorporated communities that participated in the 2005 planning effort, except for the City of Brady in McCulloch County². Table 1-1 lists the participating and non-participating communities in the Plan Update, while Figure 1-1 presents an overview of the area and participating jurisdictions.

Table 1-1. Participating and Non-Participating Jurisdictions in the Study Area

| PARTICIPATING JURISDICTIONS | NON-PARTICIPATING JURISDICTIONS |
|-----------------------------|---------------------------------|
| Coke County | |
| Town of Bronte | |
| City of Robert Lee | |
| Concho County | |
| City of Eden | |
| Town of Paint Rock | |
| Crockett County | |
| (No Incorporated Cities) | |
| Irion County | |
| City of Mertzon | |
| Kimble County | |
| City of Junction | |
| McCulloch County | |

¹ 44 CFR §201.6(d)(3)

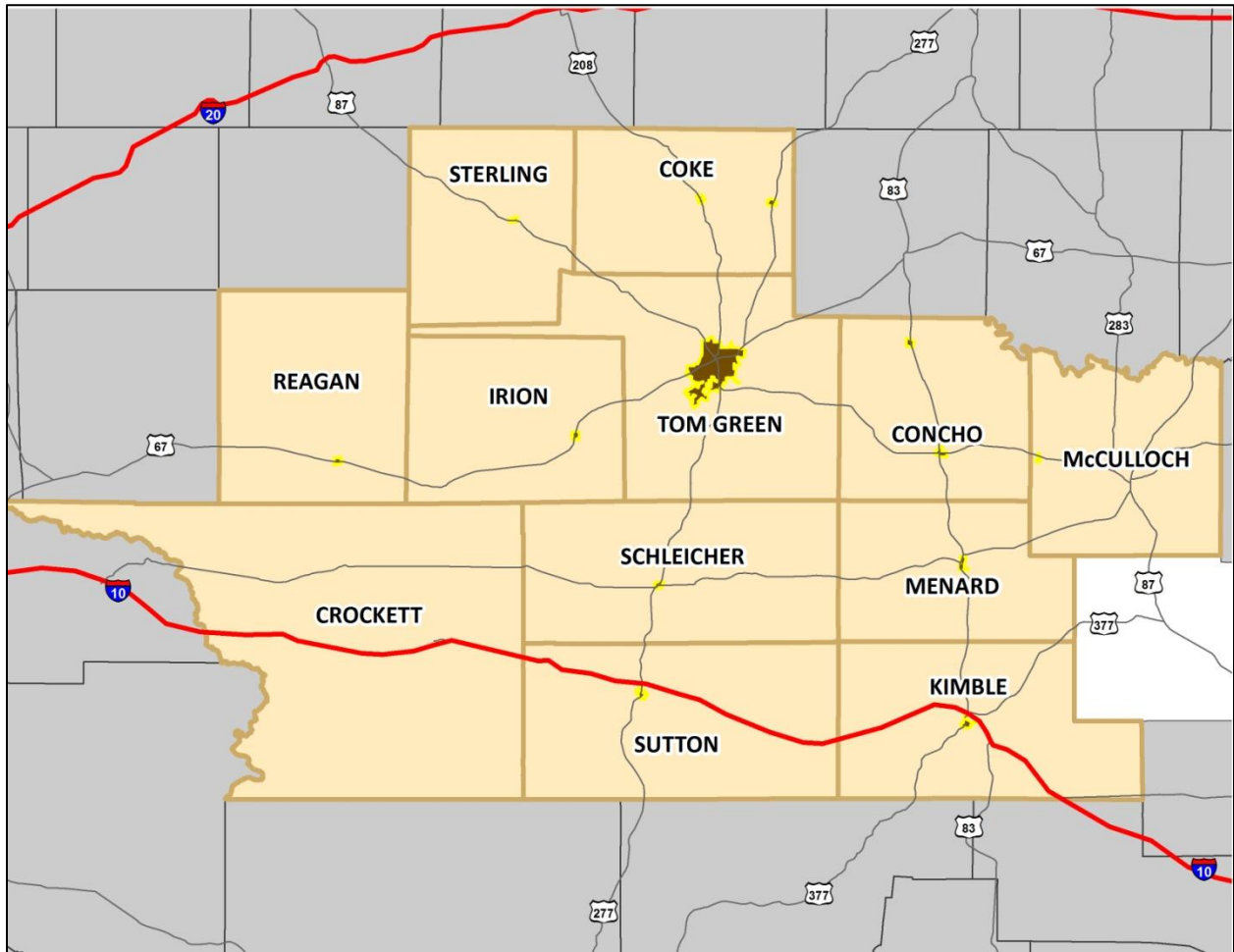
² The City of Brady participated in the Texas Colorado River Floodplain Coalition Plan Update, approved in 2011.

Introduction

| PARTICIPATING JURISDICTIONS | NON-PARTICIPATING JURISDICTIONS |
|------------------------------------|--|
| Town of Melvin | City of Brady |
| Menard County | |
| City of Menard | |
| Reagan County | |
| City of Big Lake | |
| Schleicher County | |
| City of Eldorado | |
| Sterling County | |
| City of Sterling City | |
| Sutton County | |
| City of Sonora | |
| Tom Green County | |
| City of San Angelo | |
| | Mason County |

To give a comprehensive overview of the CVCOG Region in its entirety, some background information is included on Mason County and the City of Brady in McCulloch County, even though they are not participating in the Plan Update.

Figure 1-1. Overview of Jurisdictions Participating in the Plan Update



Scope

The focus of the Plan Update is to mitigate hazards that are classified as “high” or “moderate” risk as determined through a detailed hazard risk assessment conducted for the participating CVCOG jurisdictions. Hazards that pose a “low” or “negligible” risk will continue to be evaluated during future updates to the plan, but they may not be fully addressed until they are determined to be of high or moderate risk. This enables the CVCOG and its participating jurisdictions and partners to prioritize mitigation actions based on hazards which are understood to present the greatest risk to lives and property.

Purpose

This Plan Update was prepared by the CVCOG and H2O Partners, Inc. It is an opportunity for the CVCOG and participating jurisdictions to evaluate successful mitigation actions and explore opportunities to avoid future disaster loss.

In developing the Plan Update, CVCOG and Plan participants identified twelve natural and man-caused hazards (profiled in detail in Sections 5-14 and Appendix A) to be addressed, as the goal of the Plan Update is to minimize or eliminate long-term risks to human life and property from known hazards by identifying and implementing cost-effective mitigation actions. *Mitigation* is defined by FEMA as *sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects*. Therefore, the purpose of the Plan Update is to continue developing successful mitigation projects to bring together cities and counties in order to reduce future risk of loss of life or damage to property in the CVCOG Region.

Through this update process, the CVCOG and Plan participants seek to:

- Assess previous mitigation projects and develop unique mitigation strategies to meet future development and risks;
- Encourage improvements in floodplain management, participation in the National Flood Insurance Program (NFIP); and qualifying for FEMA’s Community Rating System, thereby reducing flood insurance premiums for citizens;
- Devise solutions to strengthen emergency management by addressing moderate and high risk natural and man-caused hazards; and
- Develop and implement a comprehensive Hazard Mitigation Plan Update for the CVCOG Region.

Authority

The Plan Update will comply with all requirements promulgated by the Texas Division of Emergency Management (TDEM) and all applicable provisions of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Section 104 of the Disaster Mitigation Act of 2000 (DMA 2000) (P.L. 106-390), and the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 (P.L. 108-264). It will also comply with FEMA's February 26, 2002



FEMA

Interim Final Rule (“the Rule”) at 44 CFR Part 201, which specifies the criteria for approval of mitigation plans required in Section 322 of the DMA 2000 and standards found in FEMA’s “Local Multi-Hazard Mitigation Planning Guidance” (released July 1, 2008).

Summary of Sections

Sections 1 and 2 of the Plan outline the purpose of the Plan Update and the process of development. Section 3 profiles the region, while Section 4 provides an overview of the people and property at risk and hazards facing the area, including the process of identification and risk assessment methodologies utilized.

Sections 5 through 14 present information on individual hazards. For each hazard, the plan presents a description of the hazard, the hazard extent, a history of historical hazard events, the probability of future occurrences, and the results of the vulnerability and risk assessment process.

Section 15 presents mitigation goals and objectives. Section 16 provides the previous mitigation strategies submitted in the 2005 Plan and a current analysis for each action, while Section 17 contains all of the newly developed mitigation actions for the Plan Update. Section 18 identifies plan maintenance procedures including Plan incorporation and implementation.

Appendix A presents information on pipeline failure and hazardous material incidents, which includes a description of each hazard, the hazard extent, a history of historical hazard events, the probability of future occurrences, and the results of the vulnerability and risk assessment process. Appendix B contains a list of the planning team and stakeholders. Public survey results are analyzed in Appendix C. Appendix D contains a detailed list of toxic sites and critical facilities for the area. Appendix E contains documentation of meetings in the form of sign-in sheets³.

³ For privacy concerns, Appendices D and E will not be made available to the general public.

PLANNING PROCESS

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Plan Preparation and Development

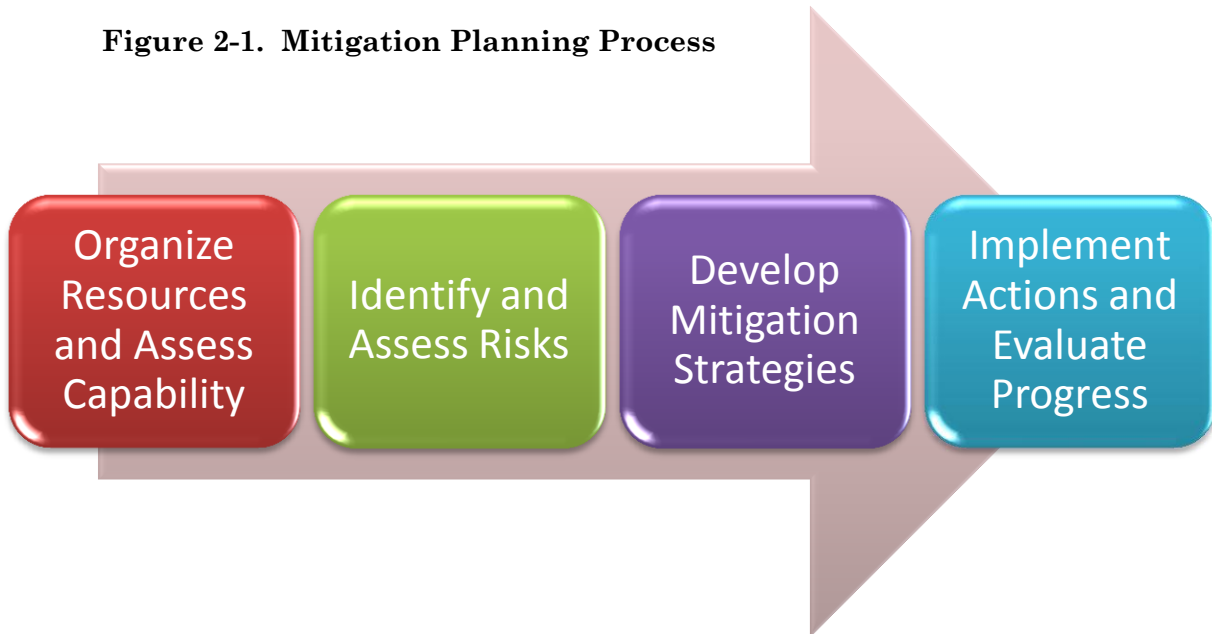
Mitigation planning involves bringing together multiple components and players to create more disaster-resistant communities. This section provides an overview of the planning process, highlighting key steps as well as providing a detailed description of how stakeholders and the public were involved.

Overview of the Plan Update

Concho Valley Council of Governments (CVCOG) received funding under the Hazard Mitigation Grant Program (HMGP) to develop a FEMA-approved Hazard Mitigation Plan Update. CVCOG solicited bids and hired the consultant team of H2O Partners, Inc. to

provide technical support and oversee the development of the Plan Update. In developing the Plan, the consultants used the July 2008 “*Local Multi-Hazard Mitigation Planning Guidance*” and the *State and Local Mitigation Planning How-to Guides* (FEMA Publication Series 386) to create the Plan Update in accordance with the process as shown in Figure 2-1 below.

Figure 2-1. Mitigation Planning Process



CVCOG and the consultant team met early October 2010 to begin organizing resources by identifying Planning Team Members and conducting a capability assessment.

Planning Team

The planning team was developed using an Advisory Committee comprised of CVCOG staff including the Homeland Security Planner and Economic Development District Representative. The Advisory Committee was then supported by one or more representatives from each participating county or community in the Plan Update. Stakeholders and the public were also included in the planning process as described in Appendix B. The entire planning team consisted of participating stakeholders, CVCOG staff and project team members of H2O Partners.

Review of the 2005 Plan

In accordance with 44 CFR §201.6(d)(3), the Advisory Committee and the consultant team met in early October 2010 to review the 2005 Plan.

Each section from the 2005 Plan was reviewed and analyzed, and it was decided the entire 2005 Plan would be revised and re-developed for the plan update process. The Committee

Planning Process

decided to use the most current information in updating the demographics and profile section.

Upon review of the introductory and overview sections of the risk assessment, the Committee decided to eliminate the terrorism hazard that was considered in the 2005 Plan as this hazard is not required by FEMA to be addressed. In addition, many of the human-caused or technological hazards are included in various emergency plans and are not eligible for funding assistance under FEMA Hazard Mitigation Assistance (HMA) funding programs. For the hazards that remained from the 2005 Plan, occurrence and probability data were updated. Critical facilities, building counts and losses were also updated to reflect changes over the past five years. The overall goals and objectives of the 2005 Plan were reviewed and it was determined that the objectives and goals needed to be updated in the Plan Update as reflected in Section 15. Plan maintenance procedures were also reviewed and updated to reflect current changes in staff and annual/bi-annual meetings.

In addition to the initial review by the Advisory Committee, all of the participating jurisdictions reviewed the mitigation strategies developed in the 2005 Plan and any amendments thereto and provided an analysis as to whether each action is ongoing, has been completed or should be deleted from the Plan Update.

The following factors were taken into consideration when reviewing the 2005 Plan:

- Whether the goals address current and expected conditions;
- Whether the nature/magnitude of risks have changed;
- Whether there are current resources appropriate for implementing the Plan;
- Whether implementation problems, such as technical, political, legal or coordination issues hinder development;
- Whether outcomes have occurred as expected; and
- How communities, agencies and partners participated in the implementation process.

Planning Process

The process used to prepare this Plan Update included following the four major steps included in Figure 2-1. After the Planning Team was organized, a capability assessment was developed and distributed at the Kick-Off Workshop. Hazards were identified and assessed, the result of which was provided at the Risk Assessment Workshop. Based on the CVCOG Region's vulnerabilities, specific mitigation strategies were discussed and created at the Mitigation Workshop. Finally plan maintenance and implementation procedures were developed and are included with this Plan at Section 18. Documentation for participation at each workshop is found in Appendix E.

Kickoff Workshop

The Kickoff Workshop was held in the region on October 20, 2010. The meeting was conducted at the Concho County Emergency Operations Center. The initial meeting was an opportunity to inform city and county officials and key department personnel about how the planning process pertained to their distinct roles and responsibilities, and also to involve stakeholder groups, such as school districts and area businesses. In addition to the kickoff presentation, participants received the following information:

- Background paperwork about the Plan Update;
- Public Survey access information; and
- Capability assessment survey for completion.

Hazard Identification

At the close of the Kickoff Meeting, and through a series of email and phone correspondences, the Planning Team confirmed hazards identification by the Advisory Committee for inclusion in the Plan Update. The group reviewed and considered a full range of natural and man-caused hazards for inclusion then narrowed the list to significant hazards by reviewing hazards affecting the area as a whole, the State of Texas Hazard Mitigation Plan, and initial study results from reputable sources such as federal and state agencies. Based on this initial analysis, the team identified a total of 10 natural hazards and 2 human-caused hazards that could affect the area.

Risk Assessment

An initial risk assessment for the CVCOG Region was completed in April 2011 and results presented to Plan participants and stakeholders at a workshop on April 20, 2011. The stakeholder meeting was held at the CVCOG Regional Training Center in San Angelo, and followed by a public meeting at 6:30 p.m. At the stakeholder workshop, the characteristics and consequences of each hazard were evaluated to determine how much of the area would be affected, in terms of potential danger to property and citizens.

Potential dollar losses from each hazard were estimated using the Federal Emergency Management Agency's Hazards U.S. Multi-Hazards (MH) Model (HAZUS-MH) and other HAZUS-like modeling techniques. The assessments examined the impact of various hazards on the built environment, including on general building stock (e.g., residential, commercial, industrial), critical facilities, lifelines, and infrastructure. The resulting risk assessment profiled hazard events, provided information on previous occurrences, estimated probability of future events, and detailed the spatial extent and magnitude of impact on people and property. Each participant was also given a risk ranking sheet at the Risk Assessment Workshops in order to reflect unique and varied risks among the planning

area. Participants ranked hazards in terms of the probability or frequency of occurrence, extent of spatial impact, and the magnitude of impact.

The assessments were also used to set priorities for mitigation based on potential dollar losses and loss of lives. A hazard profile and vulnerability analysis for each of the hazards can be found in Sections 5 through 14 in this Plan Update.

Mitigation Review and Development

The mitigation strategy development for the Plan Update involved developing mitigation goals and developing new mitigation actions, in addition to evaluating and revising the mitigation strategies included in the 2005 Plan. A Mitigation Workshop was held on April 20, 2011 at the CVCOG Regional Training Center in San Angelo. The Mitigation Workshop was followed by a public meeting at 6:30 p.m. As with the Risk Assessment Workshop, stakeholder groups were invited.

An inclusive and structured process was used to develop and prioritize new mitigation actions for this Plan, including the following steps:

- A “menu” of optional mitigation actions was developed based on plan reviews, studies, and interviews with federal, state and local officials. The participants reviewed the optional mitigation actions, and narrowed the list down to those that were most applicable to their area of responsibility, most cost-effective in reducing risk, could be implemented easily, and would be most likely to receive institutional and community support.
- The participants inventoried federal and state funding sources that could potentially assist in implementing the proposed mitigation actions. Information was collected, including the program name authority, purpose of the program, types of assistance and eligible projects, conditions on funding, types of hazards covered, matching requirements, application deadlines, and a point of contact. Mitigation Planning Team Members considered benefits that would result from the mitigation actions versus the cost of those projects. Detailed cost-benefit analyses were beyond the scope of this plan. However, economic evaluation was one factor that helped Team Members select one mitigation action from competing actions.
- Team Members then selected and prioritized mitigation actions.

The prioritization method was based on FEMA’s STAPLE+E criteria and included social, technical, administrative, political, legal, economic and environmental considerations. As a result of this exercise, an overall priority was assigned to each mitigation action by each Team Member. The overall priority of each action is reflected in the mitigation actions found in Section 17.

Team Members developed action plans identifying proposed actions, costs and benefits, the responsible organization(s), effects on new and existing buildings, implementation schedules, priorities, and potential funding sources.

Mitigation actions identified in the process were made available to the Planning Team for review. In addition, the Plan Update will be made available for review and comment on CVCOG's website.

Review and Incorporation of Existing Plans

Review

A variety of existing studies, plans, reports, and technical information were reviewed as part of the planning process. Sources of the information included FEMA, the United States Army Corps of Engineers (USACE), the U.S. Fire Administration, National Oceanic and Atmospheric Administration (NOAA), the Texas Water Development Board (TWDB), the Texas Commission on Environmental Quality (TCEQ), the State Comptroller, the Texas State Data Center, Texas Forest Service, the Texas Division of Emergency Management (TDEM), local hazard assessments and plans, including those identified in the 2006 Hazard Mitigation Plan.

Section 4 and the hazard-specific sections of the Plan Update (Sections 5-14) summarize the findings from these information sources. Some of these documents, including those from FEMA, provided information on risk, existing mitigation actions currently underway, previous actions identified in the 2005 HMAP, and ideas for possible future mitigation actions. Other documents, including those from NOAA, provided histories of disasters in the area. The USACE studies were reviewed for their assessment of risk and potential projects in the region. State Data Center documents were used to obtain population projections. Materials from FEMA and TDEM were reviewed for guidance on plan development requirements. Communities included actions from other plans, such as Floodplain Management Plans and developed actions to implement and incorporate other plans such as Storm Water Management Plans and Wildfire Management Plans.

Incorporation of Existing Plans

Current projects and studies were utilized as a starting point for discussing mitigation actions among Team Members. This information was also developed into a table for review by the Planning Team for an assessment on the CVCOG Region's capability. Previous hazard events, occurrences and descriptions were identified through NOAA's National Climatic Data Center (NCDC). Results of past hazard events were found through searching the NCDC and included in Section 4 of this Plan Update. The preliminary results were also presented at the Risk Assessment Workshop held April 20, 2011 in order to facilitate a

discussion on risk to help participants appropriately rank hazards for their jurisdiction. The Water Development Board studies were reviewed for population and other projections and included in Section 3 of the Plan Update. Further, these studies were used as a starting point for suggesting grant and mitigation activities based on flood-related funding availability. The State Comptroller materials were reviewed for regional economic projections, which were also used to fully develop Section 3 of the Plan Update. Information from the Texas Forest Service was used to appropriately rank the wildfire hazard, and to help identify potential grant opportunities. The State of Texas Mitigation Plan, developed by TDEM, was discussed in the initial planning meeting in order to develop a specific group of hazards to address in the planning effort. The State Plan was also used as a guidance document, along with FEMA materials, in the development of the Plan Update.

Public and Stakeholder Involvement

An important component of mitigation planning is public participation and stakeholder involvement. Input from individual citizens and the community as a whole, provides the Planning Team with a greater understanding of local concerns and increases the likelihood of successfully implemented mitigation actions. If citizens and stakeholders, such as local businesses, non-profits, hospitals and schools, are involved, they are more likely to gain a greater appreciation of the hazards present in their community and take steps to reduce their impact.

Public Participation

Public involvement in the development of CVCOG Hazard Mitigation Plan Update was sought at three separate periods of the planning process: (1) during the beginning of the planning process; (2) during the hazard identification stage of the Plan Update; and (3) during mitigation development but prior to official plan approval and adoption. Public input was sought using three methods: (1) open public meetings; (2) survey instruments; and (3) making copies of draft Plan Update deliverables available for public review on the CVCOG website, as well as in government offices and public libraries. Two separate public meetings were held during the development of this Plan Update, as described below.

First Series of Public Meetings

Following the Kickoff workshop for stakeholders, area businesses, and schools on October 20, 2010, a public survey was posted to the CVCOG website to provide background on the Plan Update and garner input from the public. The first series of open public meetings was held on April 20, 2011 at the CVCOG office in San Angelo. This meeting was scheduled on the same day as the Risk Assessment Workshop. The meeting was scheduled to further seek public and stakeholder input. Topics of discussion for this first meeting included the

purpose of hazard mitigation, discussion of the planning process, and types of hazards, both natural and man-caused.

Second Series of Public Meetings

The second series of open public meetings was held on July 27, 2011 at the CVCOG office in San Angelo, TX. This meeting was scheduled in the evening following the Mitigation Workshop meeting for Planning Team Members, and was specifically for seeking public and stakeholder input. The meeting was advertised through a variety of means, including a newspaper ad, flyers at meeting locations, notices on the CVCOG's website, and invitations sent via e-mail to community members.

Members of the general public did attend each of the public meetings. Representatives from area civic organizations were present, and other interested citizens. The purpose of the plan and the planning process was described as a whole. Lengthy discussion regarding hazards facing the region ensued. A key topic during the public meetings was long-term drought and wildfire. Public surveys were distributed and attendees were asked to sign in so that they could be invited to future public meetings.

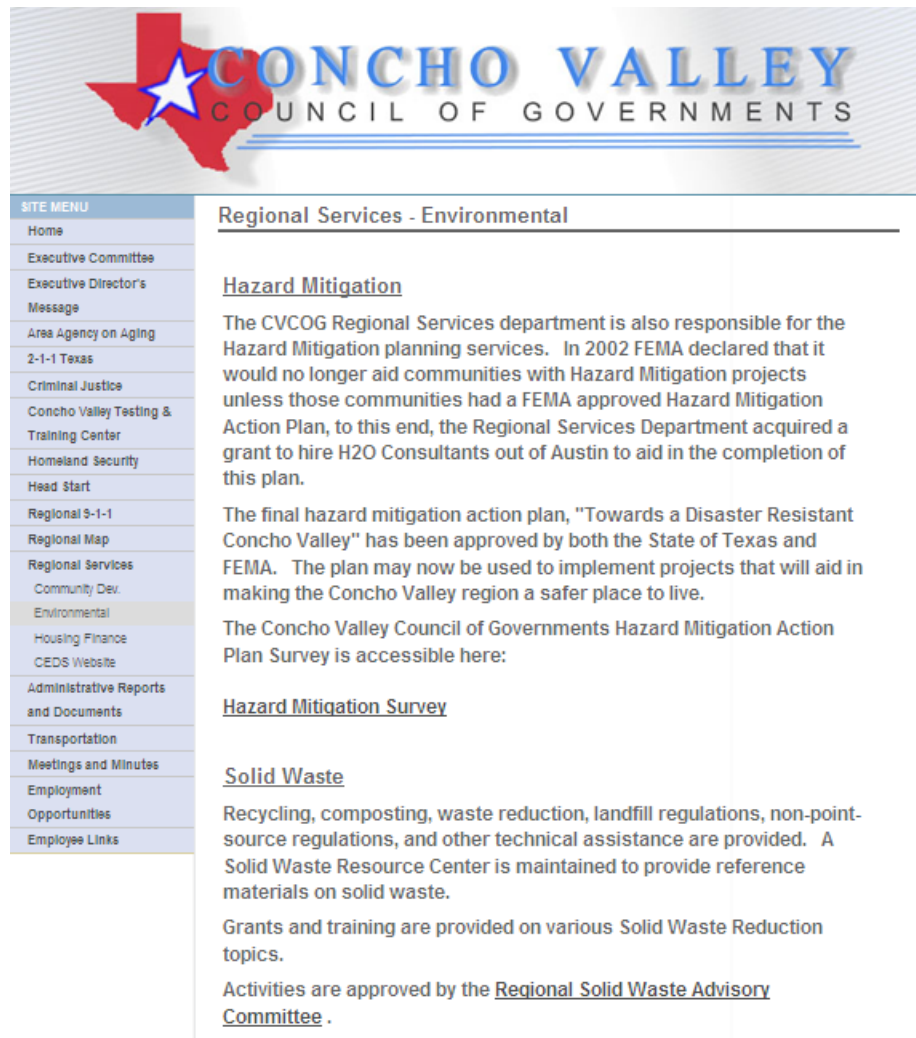
Documentation of participation in meetings is found in Appendix E.

Public Participation Survey

In addition to the open public meetings, CVCOG was able to solicit input from citizens and stakeholders through the use of a public participation survey. This survey was designed to obtain data and information from the residents of the CVCOG Region. Planning Team member communities distributed surveys at public forums and posted the survey on their community website.

Copies of the Participation Survey were distributed by local officials and at public meetings. A total of 72 responses to the survey were submitted, which provided valuable input in the development of the Plan Update. A summary of the survey findings is provided in Appendix C.

Figure 2-2. Screen Shot of CVCOG’s Online Public Survey



Stakeholder Involvement

Stakeholders provide an essential service in hazard mitigation planning; therefore, throughout the planning process, members of state and federal agencies, community groups, local businesses, schools and hospitals were invited to workshops held throughout the planning process. Numerous local businesses were invited to participate in the Hazard Mitigation Planning Process. A partial list of organizations invited to attend may be found in Figure 2-3.

Figure 2-3. List of Stakeholders Invited to Attend HMAP Meetings



REGIONAL PROFILE

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Overview

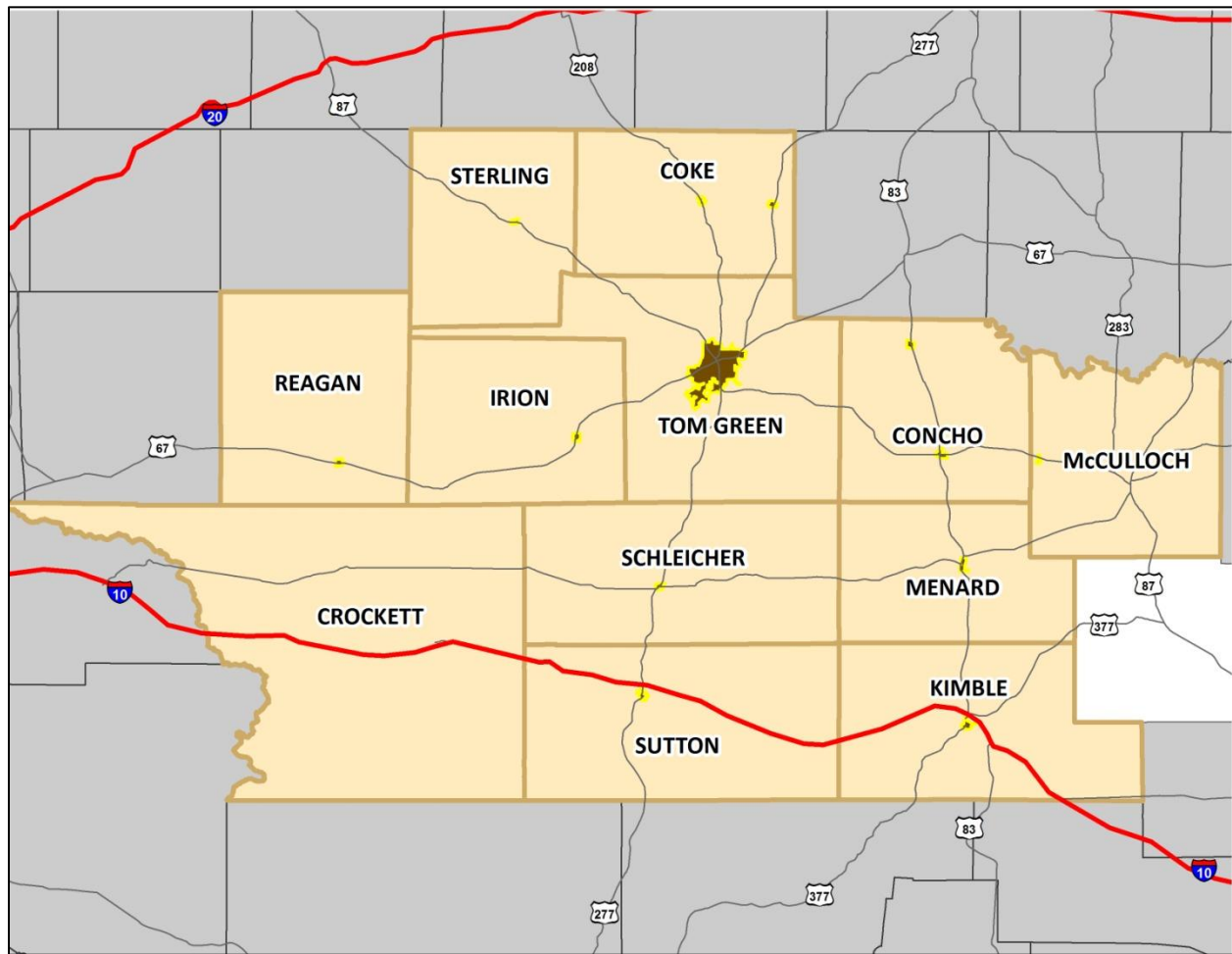
The CVCOG extends over a thirteen-county statutory district, which is bordered by the Colorado River along the north and east and Devils and Llano Rivers along the south and includes the following counties for an aggregate population of 154,192, according to the 2010 U.S. Census Bureau: Coke, Concho, Crockett, Irion, Kimble, McCulloch, Mason, Menard, Reagan, Schleicher, Sterling, Sutton, and Tom Green. The CVCOG Region covers 16,398 square miles and is home to the Brady, Colorado, Concho, Devils, Llano, and San Saba Rivers. All but its extreme northeast portion is underlain by the Edwards-Trinity (Plateau) Aquifer, which flows through sandstone and limestone formations to numerous pleasant springs. Cypress can be found along rivers and creeks, with live oak, shinnery oak, juniper, and mesquite elsewhere. Also located in the CVCOG



Regional Profile

Region is the Spraberry Trend, a large oil field that covers the majority of Reagan County and portions of Irion and Crockett counties.

Figure 3-1. Map of Concho Valley Council of Governments Study Area



The map above, Figure 3-1, illustrates the extent of the study area, including the twelve participating counties that form the Concho Valley Council of Governments. Provided in Table 3-1 below is a listing of the jurisdictions in the CVCOG and status of participation in the Hazard Mitigation Plan Update. It is important to note that Mason County, and one incorporated municipality, City of Brady in McCulloch County, are not participating in this study. Both Mason County and the City of Brady were recently part of a risk assessment for the Texas Colorado River Floodplain Coalition (TCRFC).

Table 3-1. Participating and Non-Participating Jurisdictions in the Study Area

| PARTICIPATING JURISDICTIONS | NON-PARTICIPATING JURISDICTIONS |
|-----------------------------|---------------------------------|
| Coke County | |
| Town of Bronte | |
| City of Robert Lee | |
| Concho County | |
| City of Eden | |
| Town of Paint Rock | |
| Crockett County | |
| (No Incorporated Cities) | |
| Irion County | |
| City of Mertzon | |
| Kimble County | |
| City of Junction | |
| McCulloch County | |
| Town of Melvin | City of Brady |
| Menard County | |
| City of Menard | |
| Reagan County | |
| City of Big Lake | |
| Schleicher County | |
| City of Eldorado | |
| Sterling County | |
| City of Sterling City | |
| Sutton County | |
| City of Sonora | |
| Tom Green County | |
| City of San Angelo | |
| | Mason County |

To give a more comprehensive overview of the CVCOG Region in its entirety, some background information is included on Mason County and the City of Brady in McCulloch County, even though they are not participating in the Plan Update.

Population and Demographics

The population distribution for the CVCOG is depicted in Figures 3-2 through 3-14, which is based on data from the 2000 U.S. Census Bureau. The maps display the twelve counties including unincorporated areas, as well as the participating jurisdictions. 2000 Census data at the census block level was used to determine population distribution. Table 3-2 provides a numeric breakdown of population by jurisdiction.

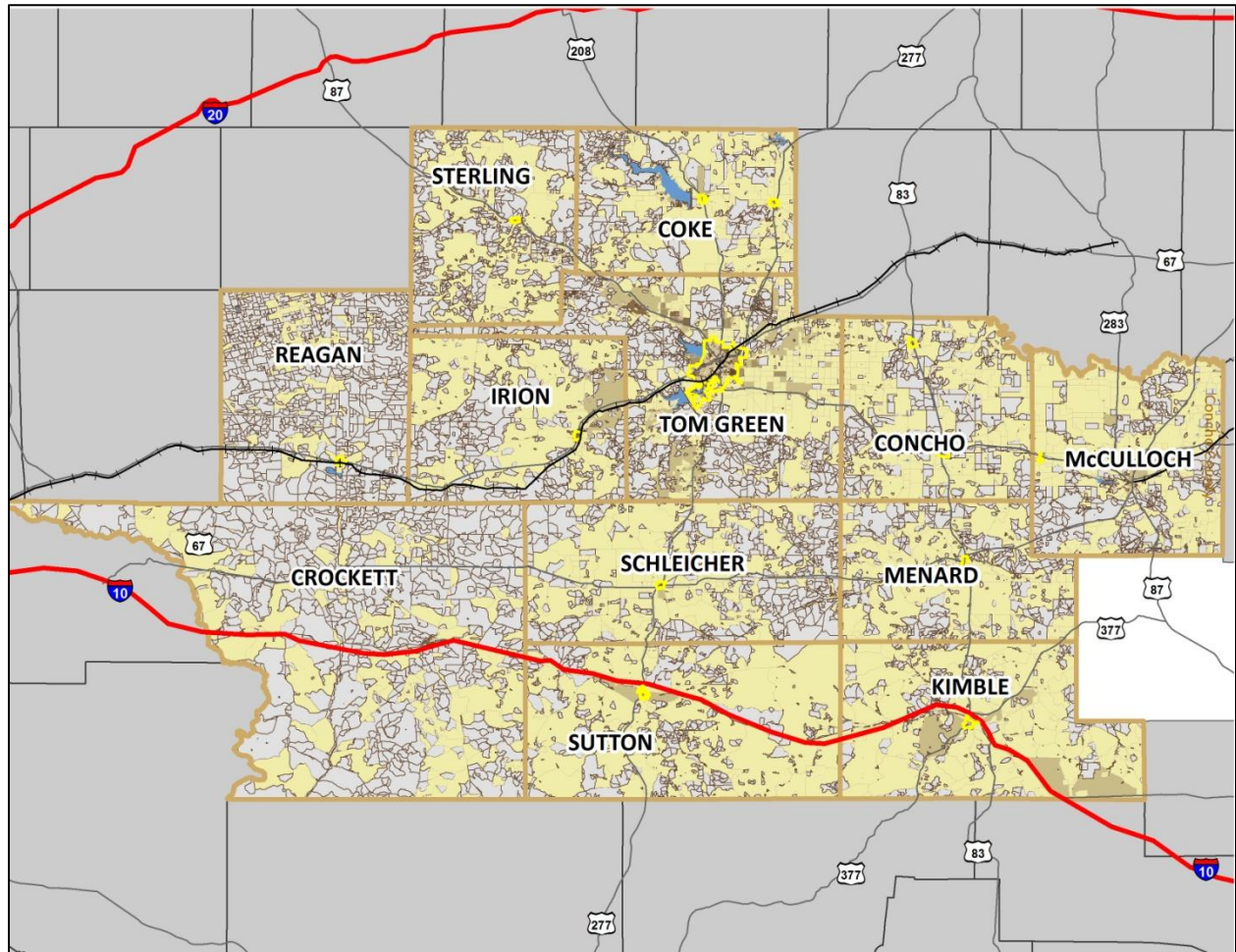
Table 3-2. Population Distribution by Jurisdiction

| JURISDICTION | TOTAL 2000 POPULATION | ESTIMATED SPECIAL NEEDS POPULATIONS | |
|--------------------------|-----------------------|-------------------------------------|--------------------------|
| | | Elderly (Over 65) | Low Income (<= \$20,000) |
| Coke County | 3,864 | 931 | 465 |
| Bronte | 1,076 | 264 | 161 |
| Robert Lee | 1,171 | 335 | 163 |
| Uninc. Coke County | 1,617 | 332 | 141 |
| Concho County | 3,966 | 547 | 310 |
| Eden | 2,561 | 282 | 186 |
| Paint Rock | 320 | 43 | 53 |
| Uninc. Concho County | 1,085 | 222 | 71 |
| Crockett County | 4,099 | 528 | 783 |
| (No Incorporated Cities) | | | |
| Irion County | 1,771 | 276 | 148 |
| Mertzon | 839 | 127 | 80 |
| Uninc. Irion County | 932 | 149 | 68 |
| Kimble County | 4,468 | 932 | 828 |
| Junction | 2,618 | 474 | 567 |
| Uninc. Kimble County | 1,850 | 458 | 261 |
| McCulloch County | 8,205 | 1,602 | 1,798 |
| Melvin | 155 | 35 | 80 |
| Uninc. McCulloch County | 8,050 | 1,567 | 1,718 |
| Mason County | 3,738 | 879 | 488 |
| Menard County | 2,360 | 518 | 597 |
| Menard | 1,653 | 340 | 535 |
| Uninc. Menard County | 707 | 178 | 62 |
| Reagan County | 3,326 | 342 | 387 |
| Big Lake | 2,885 | 293 | 318 |

Regional Profile

| JURISDICTION | TOTAL 2000 POPULATION | ESTIMATED SPECIAL NEEDS POPULATIONS | |
|------------------------------|-----------------------|-------------------------------------|--------------------------|
| | | Elderly (Over 65) | Low Income (<= \$20,000) |
| Uninc. Reagan County | 441 | 49 | 69 |
| Schleicher County | 2,935 | 482 | 621 |
| Eldorado | 1,951 | 312 | 504 |
| Uninc. Schleicher County | 984 | 170 | 117 |
| Sterling County | 1,393 | 204 | 230 |
| Sterling City | 1,081 | 170 | 186 |
| Uninc. Sterling County | 312 | 34 | 44 |
| Sutton County | 4,077 | 508 | 726 |
| Sonora | 2,924 | 312 | 492 |
| Uninc. Sutton County | 1,153 | 196 | 234 |
| Tom Green County | 104,010 | 13,969 | 15,193 |
| San Angelo | 88,439 | 12,211 | 13,275 |
| Uninc. Tom Green County | 15,571 | 1,758 | 1,918 |
| TOTALS FOR STUDY AREA | 148,212 | 21,718 | 22,574 |

Figure 3-2. Population Distribution for the CVCOG Study Area



LEGEND

- | | | |
|-----------------------------|----------------------------|-------------------|
| Population Per Census Block | CVCOG County | Interstates |
| 0 | Participating Municipality | U.S. Highways |
| 1 - 42 | Non-Participating County | Rail |
| 43 - 97 | Surrounding Counties | Major Water Areas |
| 98 - 202 | | |
| 203 - 400 | | |
| 401 - 1303 | | |

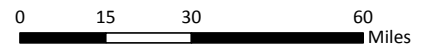
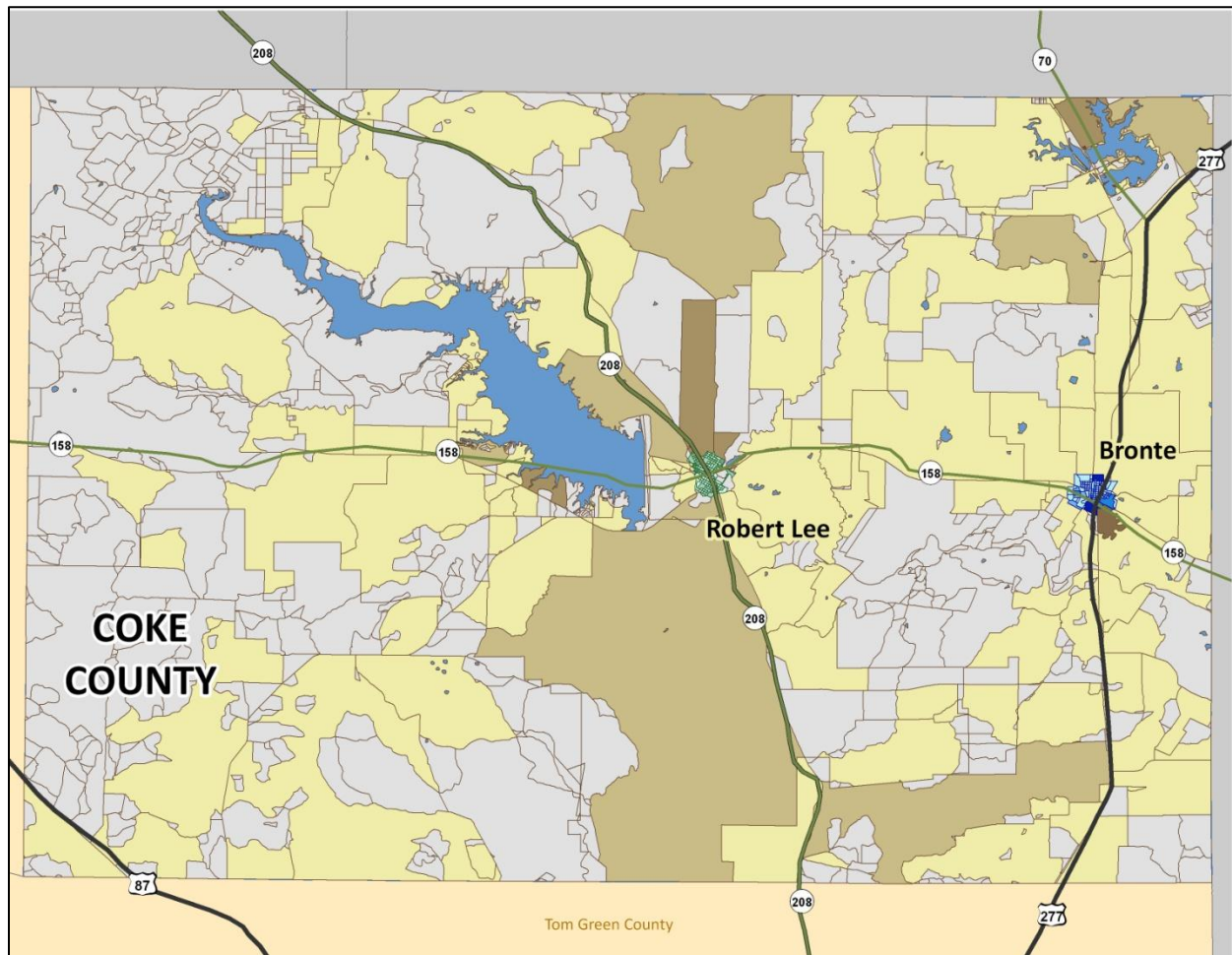


Figure 3-3. Population Distribution for Coke County



LEGEND

| | | | |
|---------|------------|-------------|--------------------------|
| Bronte | Robert Lee | Coke County | CVCOG County |
| 0 | 0 | 0 | Non-Participating County |
| 1 - 10 | 1 - 10 | 1 - 16 | Surrounding Counties |
| 11 - 18 | 11 - 20 | 17 - 39 | Major Water Areas |
| 19 - 31 | 21 - 30 | 40 - 96 | U.S. Highways |
| 32 - 68 | 31 - 65 | 97 - 205 | State Highways |

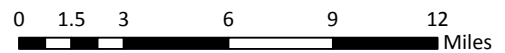
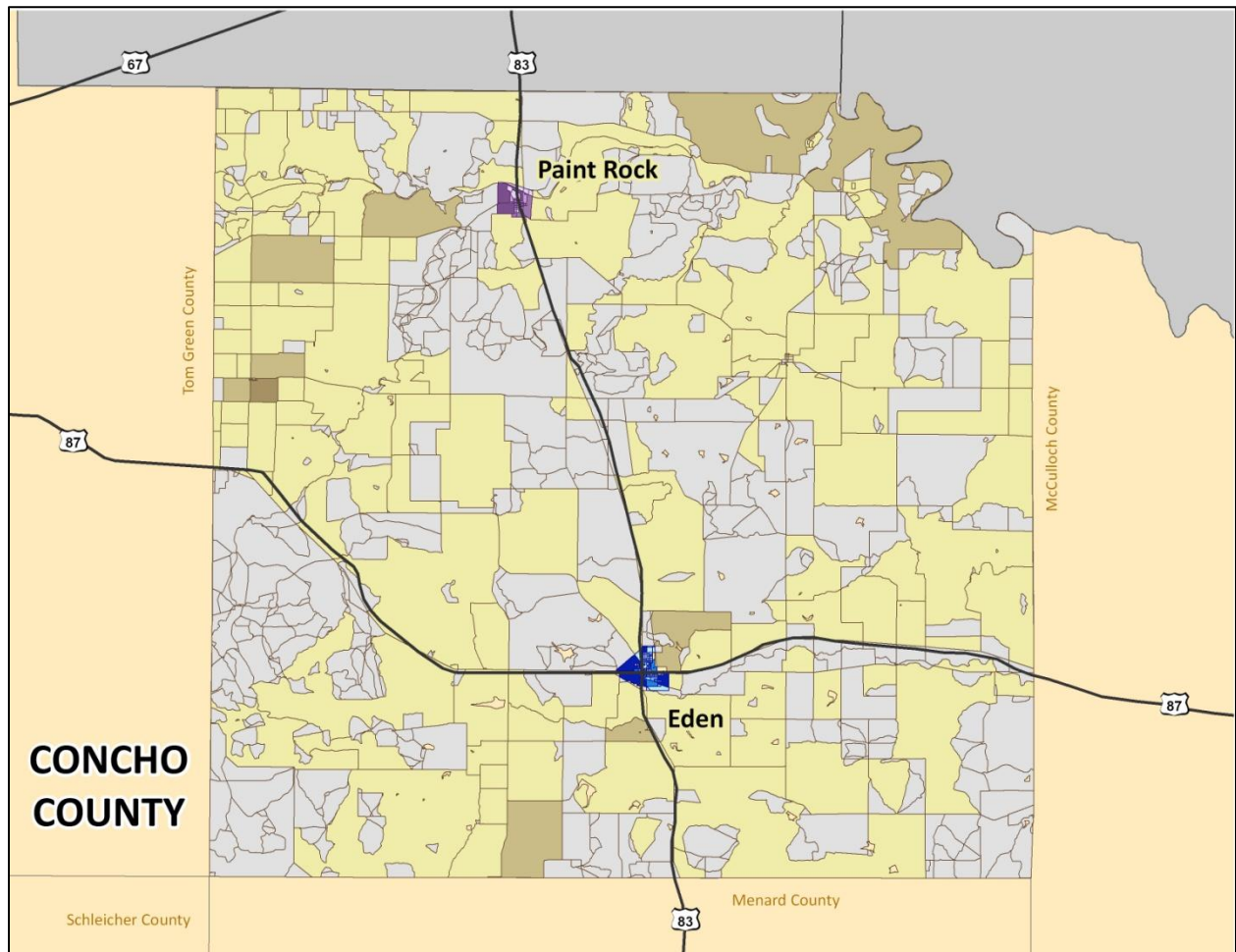


Figure 3-4. Population Distribution for Concho County



LEGEND

| | | | |
|---------|------------|---------------|--------------------------|
| Eden | Paint Rock | Concho County | CVCOG County |
| 0 | 0 | 0 | Non-Participating County |
| 1 - 10 | 1 - 6 | 1 - 16 | Surrounding Counties |
| 11 - 18 | 7 - 11 | 17 - 39 | Major Water Areas |
| 19 - 31 | 12 - 18 | 40 - 96 | U.S. Highways |
| 32 - 68 | 19 - 36 | 97 - 205 | State Highways |

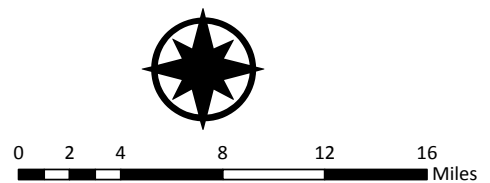
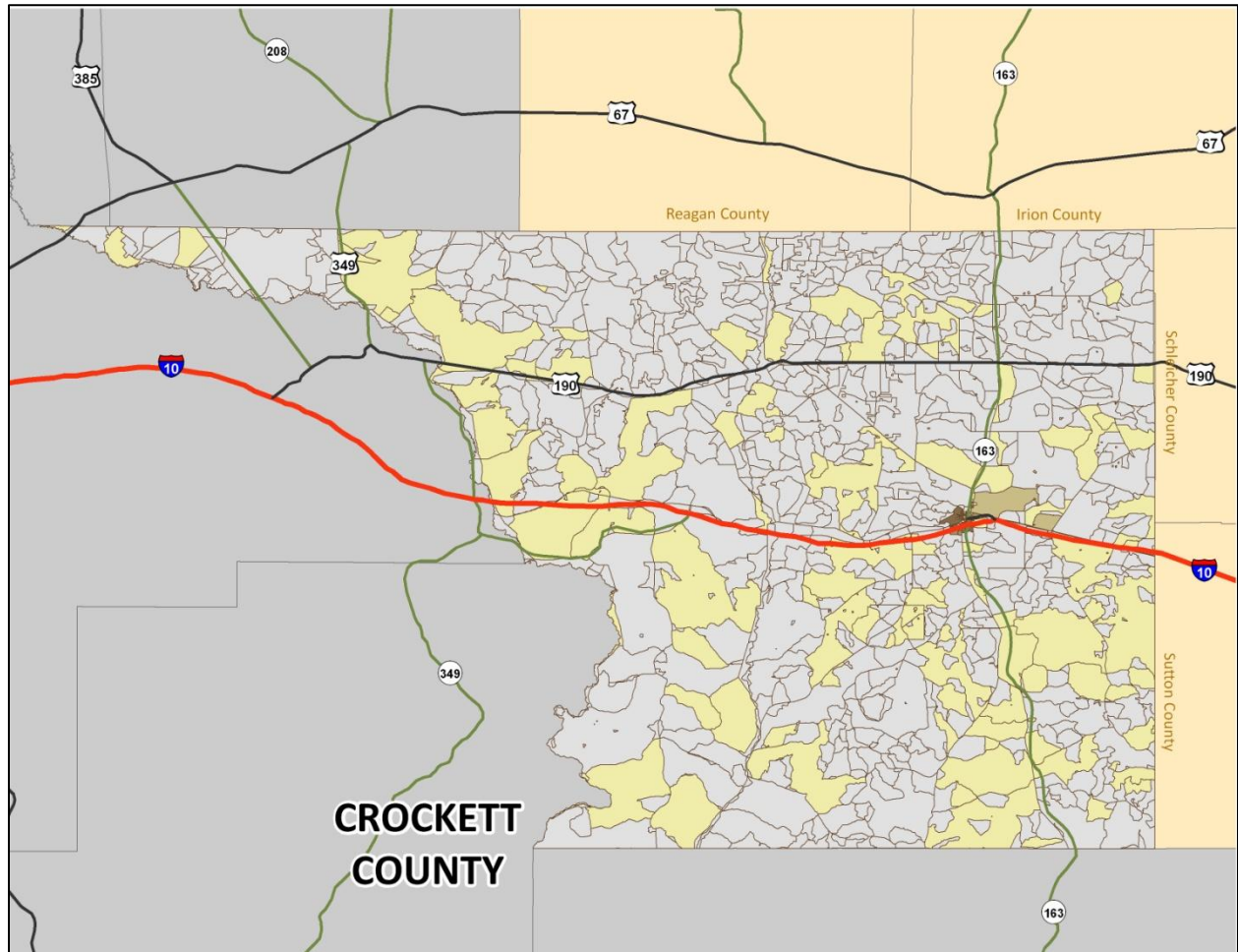


Figure 3-5. Population Distribution for Crockett County



LEGEND

- | | | |
|-----------------|--------------------------|----------------|
| Crockett County | CVCOG County | Interstates |
| 0 | Non-Participating County | U.S. Highways |
| 1 - 20 | Surrounding Counties | State Highways |
| 21 - 48 | Major Water Areas | |
| 49 - 97 | | |
| 98 - 251 | | |

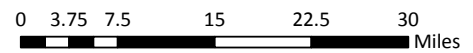
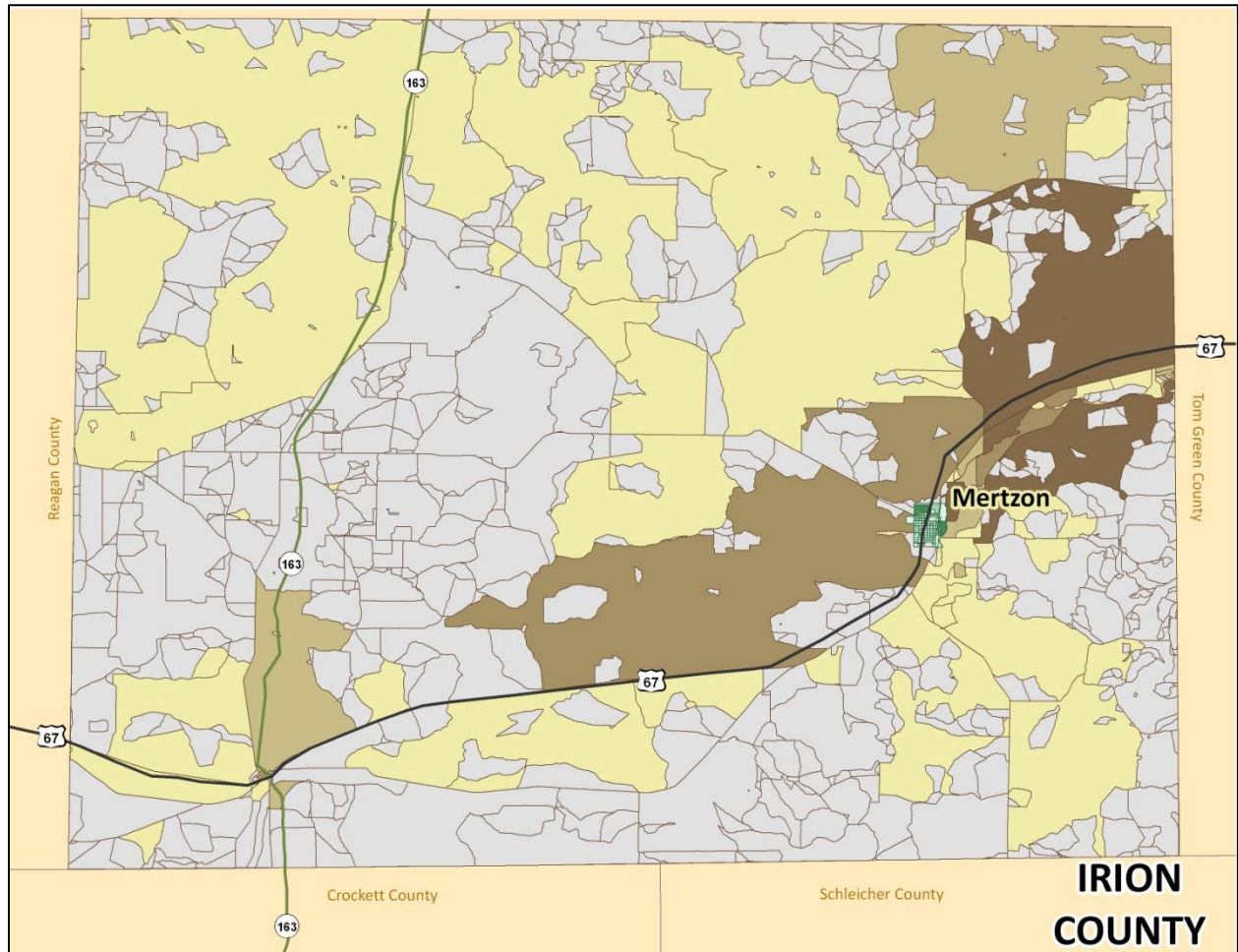


Figure 3-6. Population Distribution for Irion County



LEGEND

| | | | |
|---------|--------------|--------------------------|----------------|
| Mertzon | Irion County | CVCOG County | Interstates |
| 0 | 0 | Non-Participating County | U.S. Highways |
| 1 - 10 | 1 - 12 | Surrounding Counties | State Highways |
| 11 - 20 | 13 - 25 | Major Water Areas | |
| 21 - 30 | 26 - 39 | | |
| 31 - 65 | 40 - 62 | | |

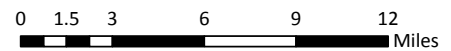
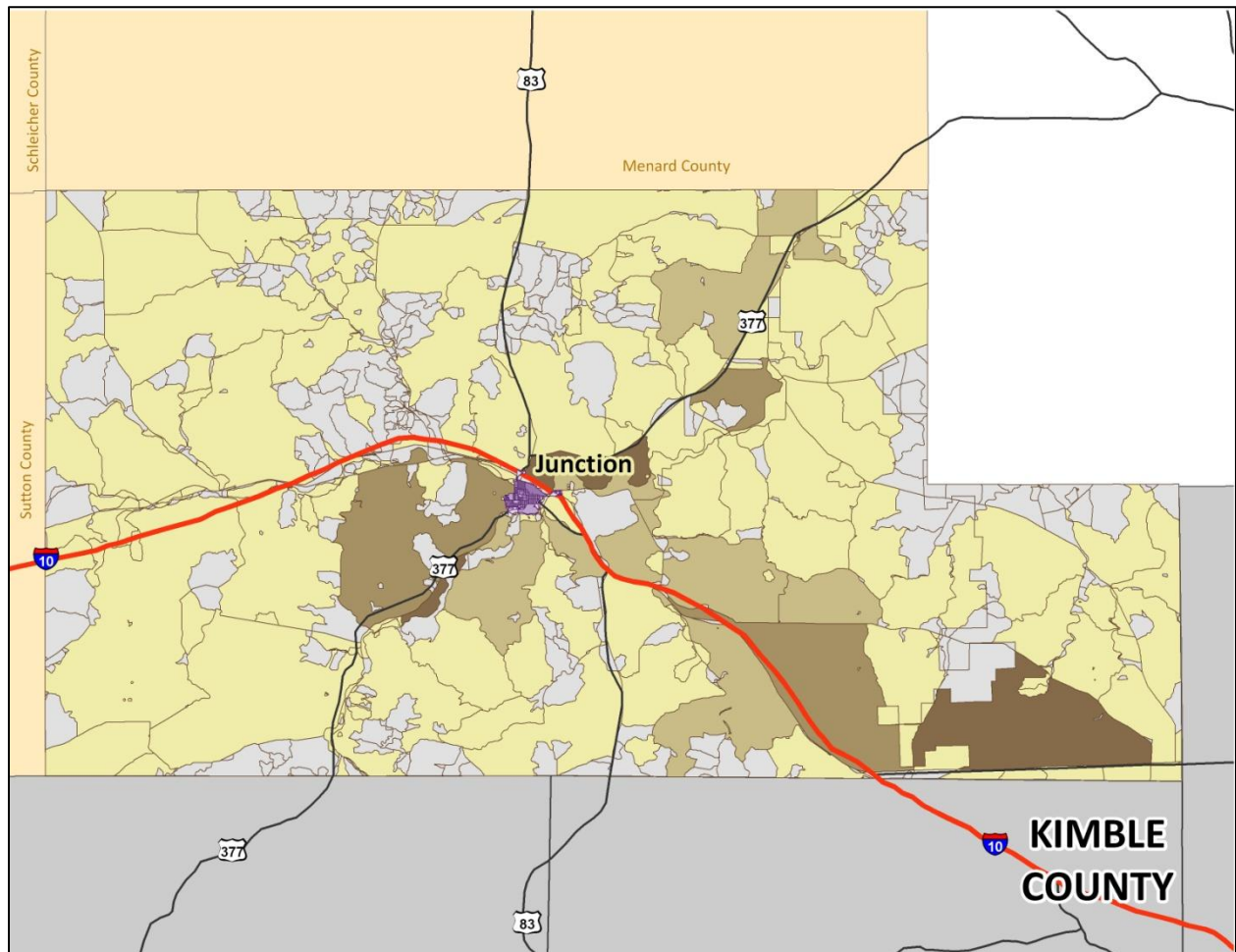


Figure 3-7. Population Distribution for Kimble County



LEGEND

| | | | |
|----------|---------------|--------------------------|----------------|
| Junction | Kimble County | CVCOG County | Interstates |
| 0 | 0 | Major Water Areas | State Highways |
| 1 - 17 | 1 - 17 | Non-Participating County | U.S. Highways |
| 18 - 33 | 18 - 36 | Surrounding Counties | |
| 34 - 58 | 37 - 61 | | |
| 59 - 125 | 62 - 125 | | |

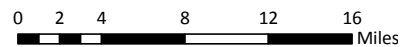
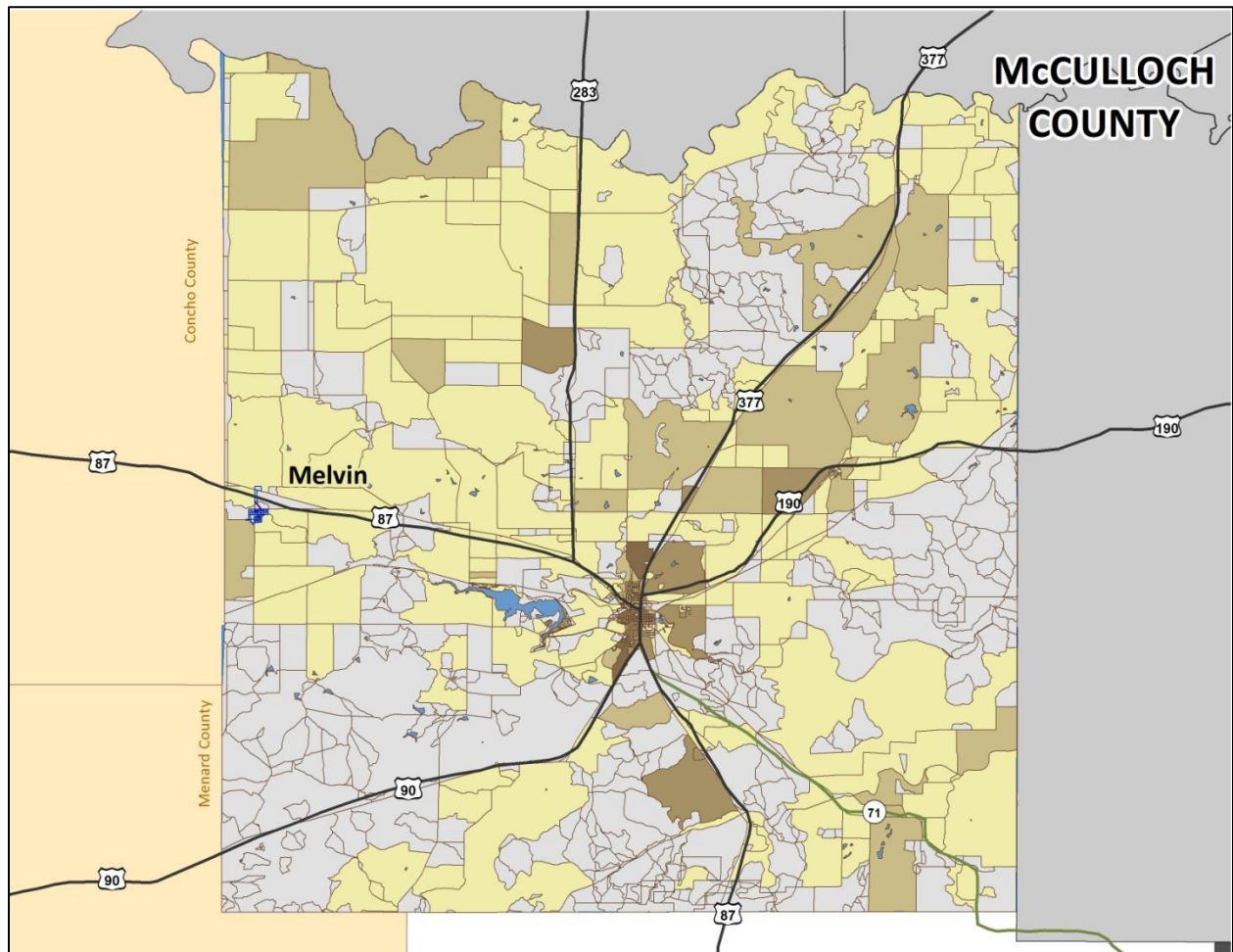


Figure 3-8. Population Distribution for McCulloch County



LEGEND

| | | |
|---------|------------------|--------------------------|
| Melvin | McCulloch County | CVCOG County |
| 0 | 0 | Non-Participating County |
| 1 - 3 | 1 - 16 | Surrounding Counties |
| 4 - 6 | 17 - 35 | Major Water Areas |
| 7 - 10 | 36 - 70 | U.S. Highways |
| 11 - 13 | 71 - 131 | State Highways |

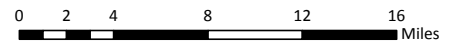
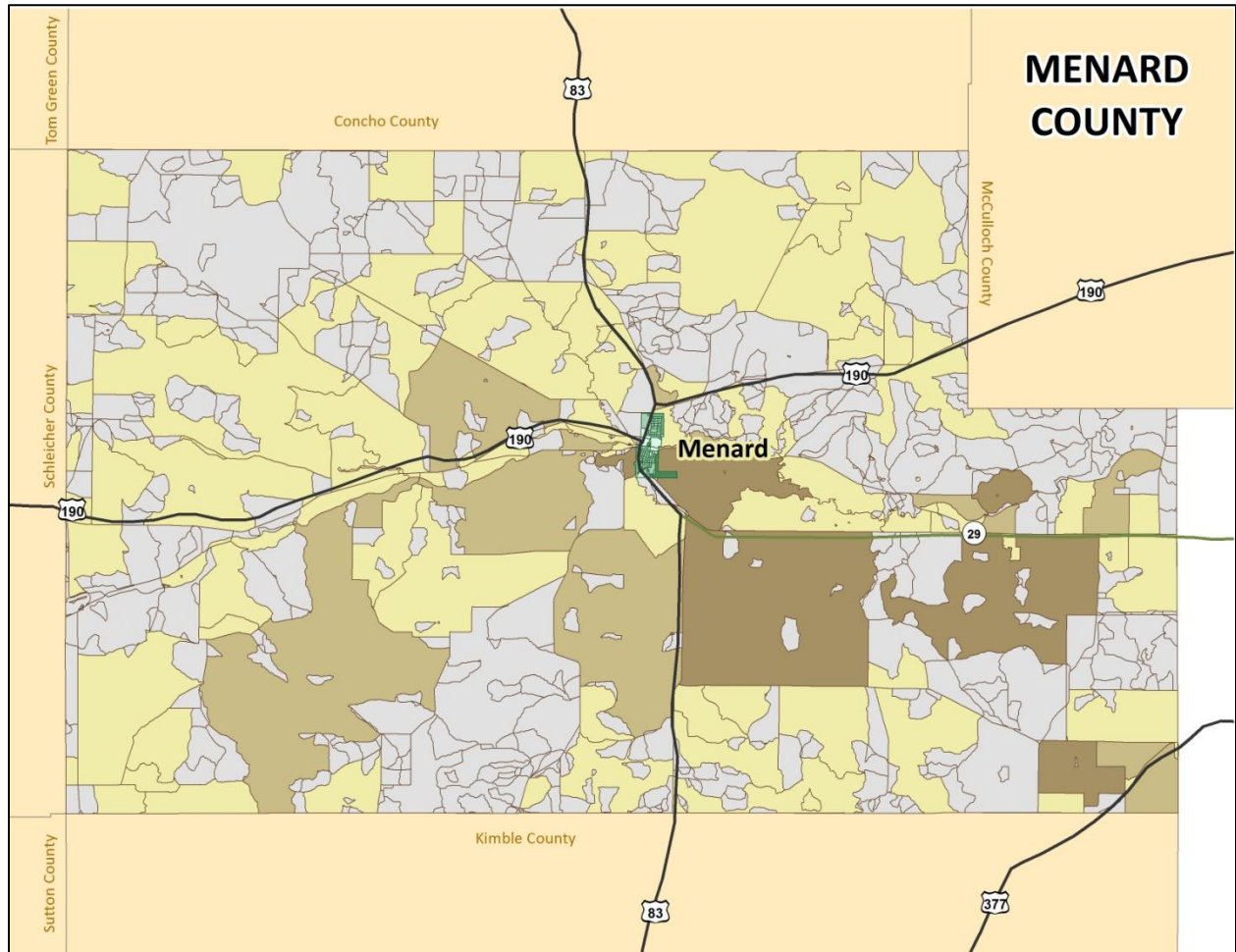


Figure 3-9. Population Distribution for Menard County



LEGEND

| | | | |
|---------------|----------------------|--------------------------|----------------|
| Menard | Menard County | CVCOG County | U.S. Highways |
| 0 | 0 | Non-Participating County | State Highways |
| 1 - 17 | 1 - 9 | Surrounding Counties | Rail |
| 18 - 43 | 10 - 19 | Major Water Areas | |
| 44 - 91 | 20 - 66 | | |
| 92 - 177 | 67 - 177 | | |

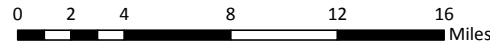
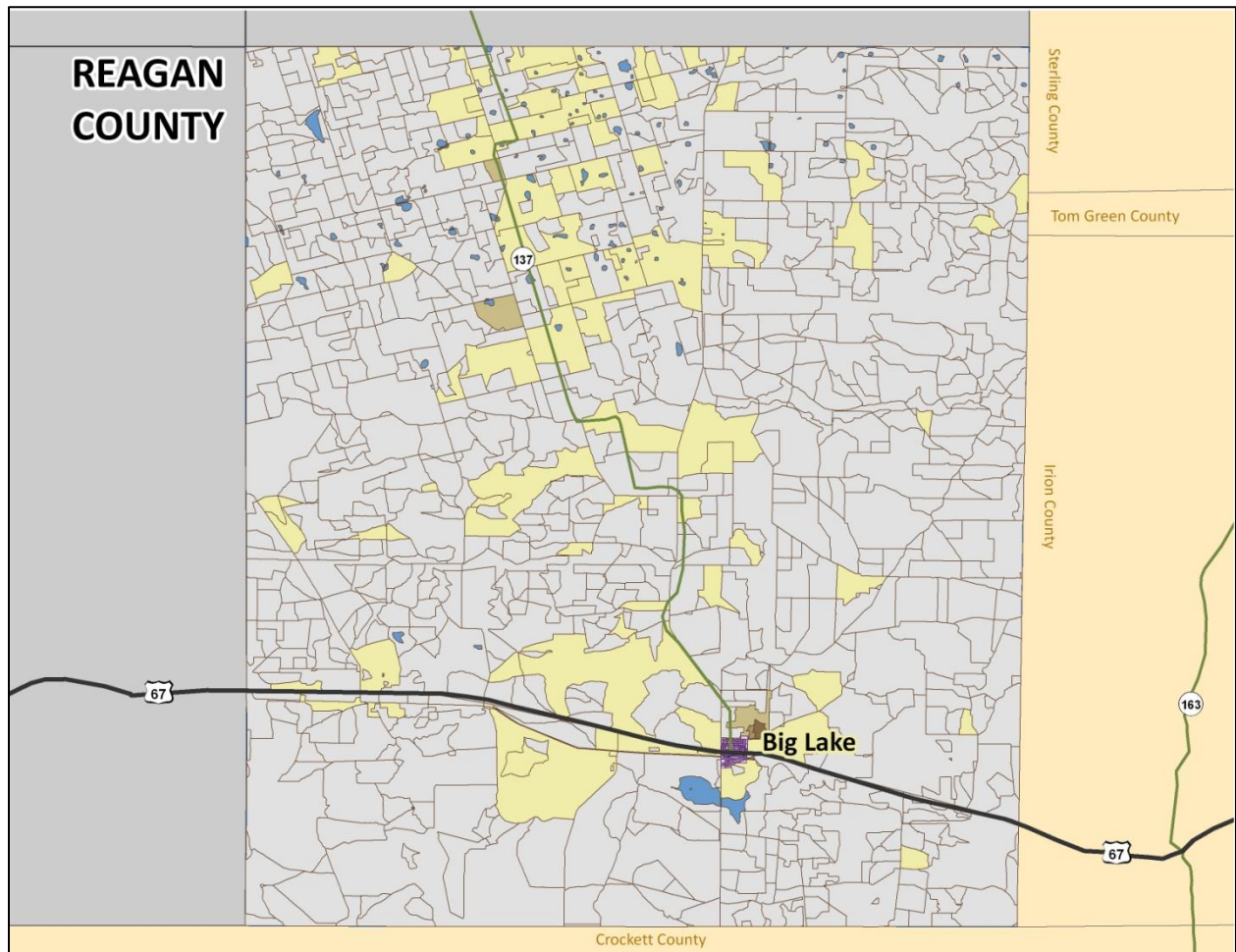


Figure 3-10. Population Distribution for Reagan County



LEGEND

- | | | | |
|----------|---------------|--------------------------|----------------|
| Big Lake | Reagan County | CVCOG County | Interstates |
| 0 | 0 | Non-Participating County | State Highways |
| 1 - 15 | 1 - 15 | Surrounding Counties | U.S. Highways |
| 16 - 23 | 16 - 24 | Major Water Areas | |
| 24 - 38 | 25 - 38 | | |
| 39 - 60 | 39 - 60 | | |

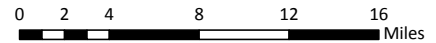
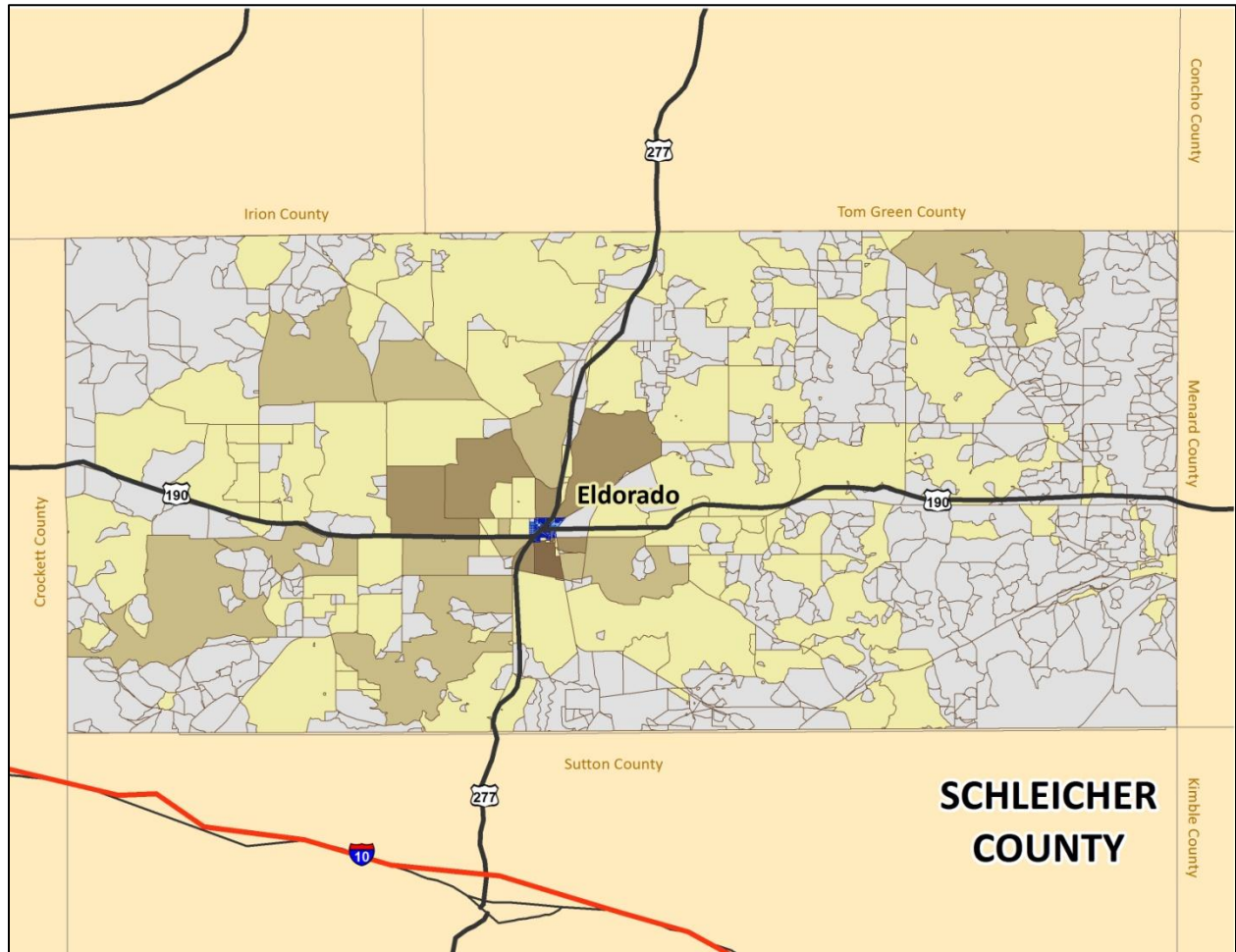


Figure 3-11. Population Distribution for Schleicher County



LEGEND

| | | | |
|----------------------------|-------------------------------------|--------------------------|---------------|
| Eldorado Population | Schleicher County Population | CVCOG County | Interstates |
| 0 | 0 | Non-Participating County | U.S. Highways |
| 1 - 12 | 1 - 11 | Surrounding Counties | State Roads |
| 13 - 23 | 12 - 23 | Major Water Areas | |
| 24 - 47 | 24 - 47 | | |
| 48 - 73 | 48 - 82 | | |

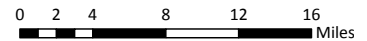
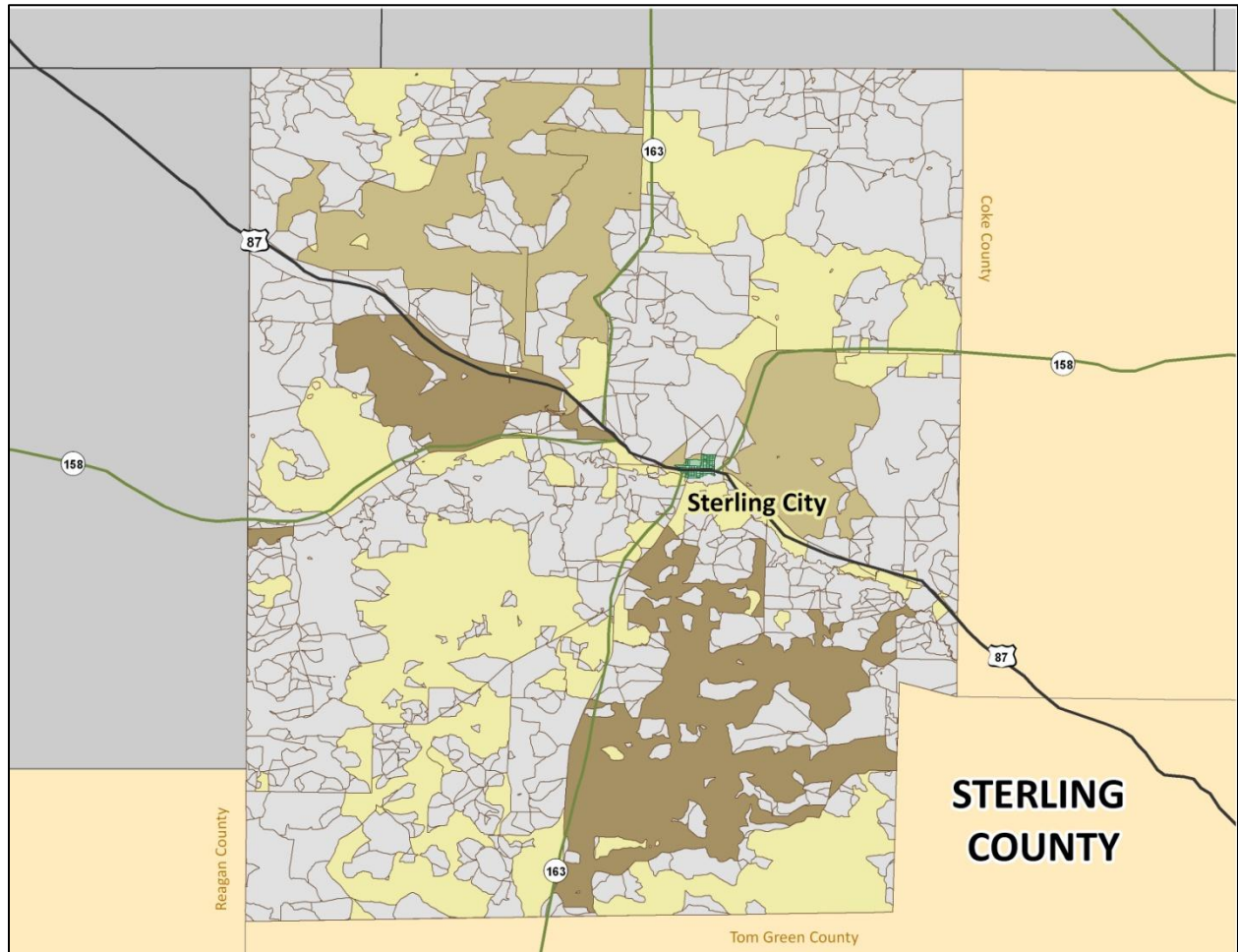


Figure 3-12. Population Distribution for Sterling County



LEGEND

| | | | |
|---------|---------|--------------------------|----------------|
| 0 | 0 | CVCOG County | Interstates |
| 1 - 11 | 1 - 10 | Non-Participating County | U.S. Highways |
| 12 - 18 | 11 - 17 | Surrounding Counties | State Highways |
| 19 - 26 | 18 - 26 | | |
| 27 - 45 | 27 - 45 | | |

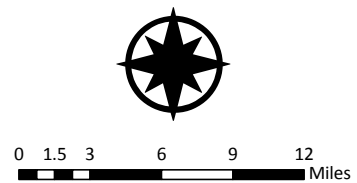
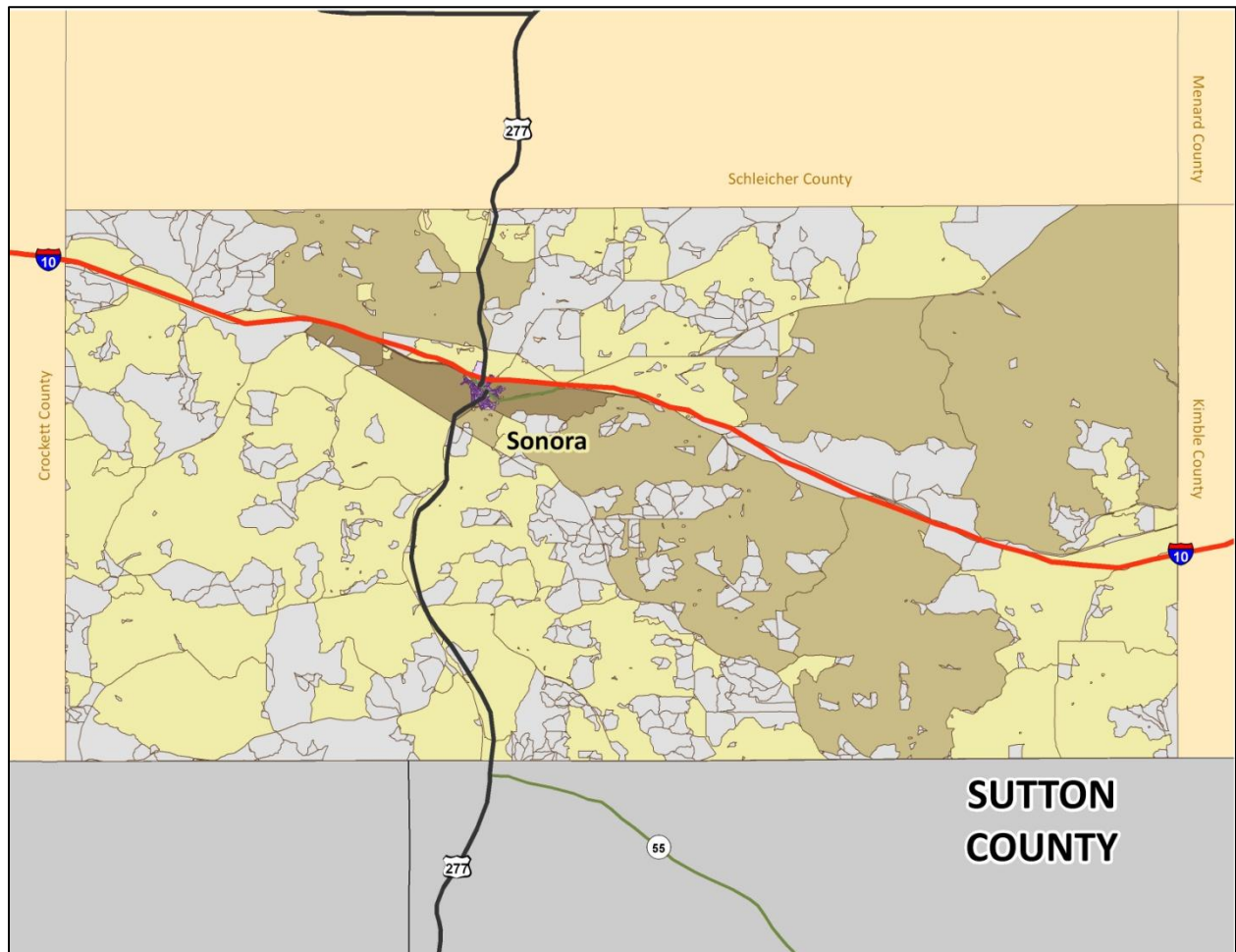


Figure 3-13. Population Distribution for Sutton County



LEGEND

| | | | |
|----------|---------------|--------------------------|----------------|
| Sonora | Sutton County | CVCOG County | Interstates |
| 0 | 0 | Non-Participating County | U.S. Highways |
| 1 - 19 | 1 - 20 | Surrounding Counties | State Highways |
| 20 - 43 | 21 - 43 | | |
| 44 - 84 | 44 - 84 | | |
| 85 - 144 | 85 - 144 | | |

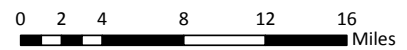
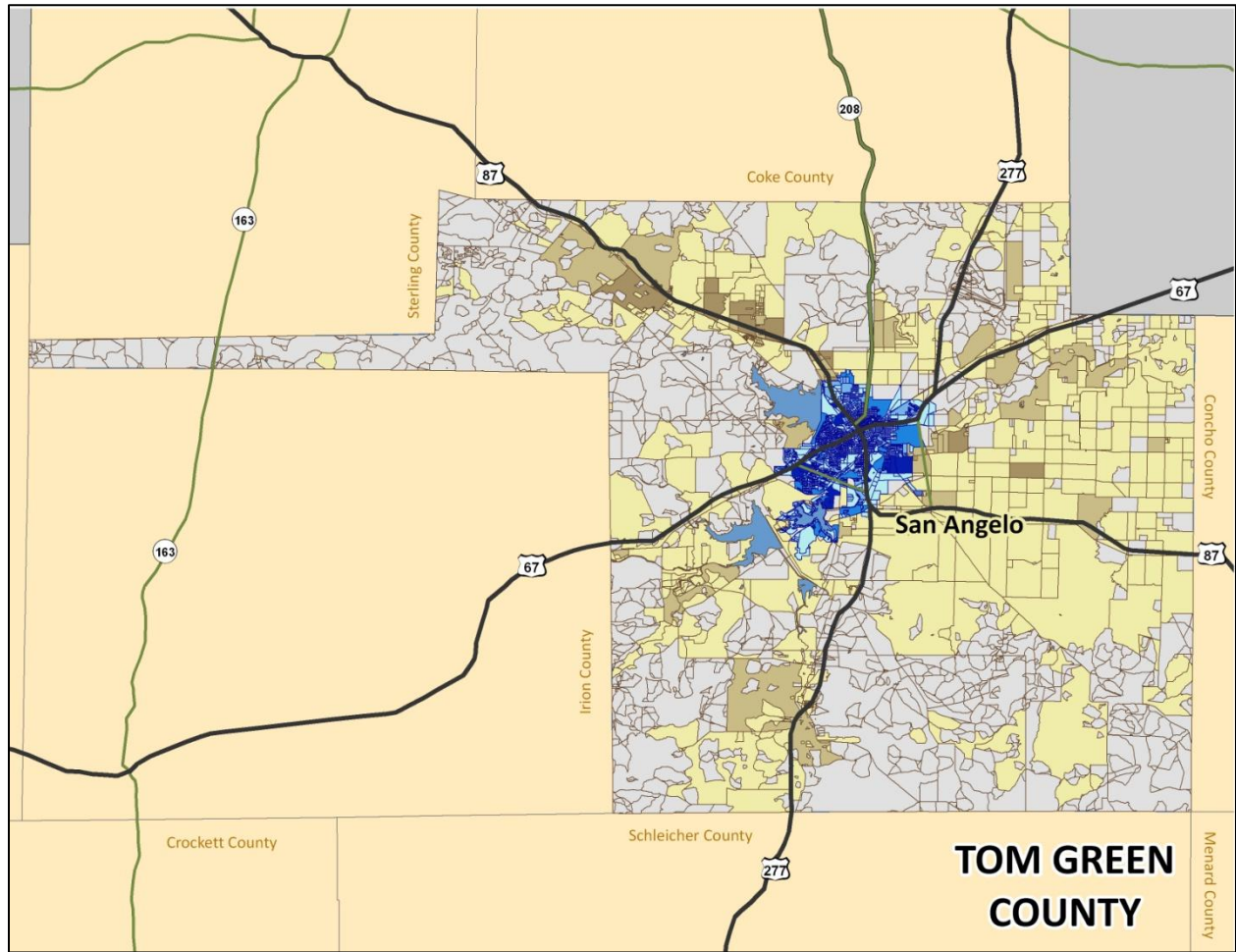
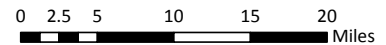


Figure 3-14. Population Distribution for Tom Green County



LEGEND

| | | | |
|------------|------------------|--------------------------|----------------|
| San Angelo | Tom Green County | CVCOG County | Interstates |
| 0 | 0 | Non-Participating County | U.S. Highways |
| 1 - 56 | 1 - 53 | Surrounding Counties | State Highways |
| 57 - 136 | 54 - 136 | | |
| 137 - 324 | 137 - 324 | | |
| 325 - 795 | 325 - 795 | | |



2010 Population

The CVCOG Region has a population of 154,192, according to the 2010 U.S. Census Bureau. Tom Green County is the largest county in the CVCOG, with 71.5 percent of the total population, with the City of San Angelo being the largest jurisdiction in the CVCOG Region with a population of 93,200. McCulloch County is the second largest with its population accounting for 5.4 percent of the CVCOG population. All of the other counties are small in comparison, each accounting for less than 3.0 percent of the total population.

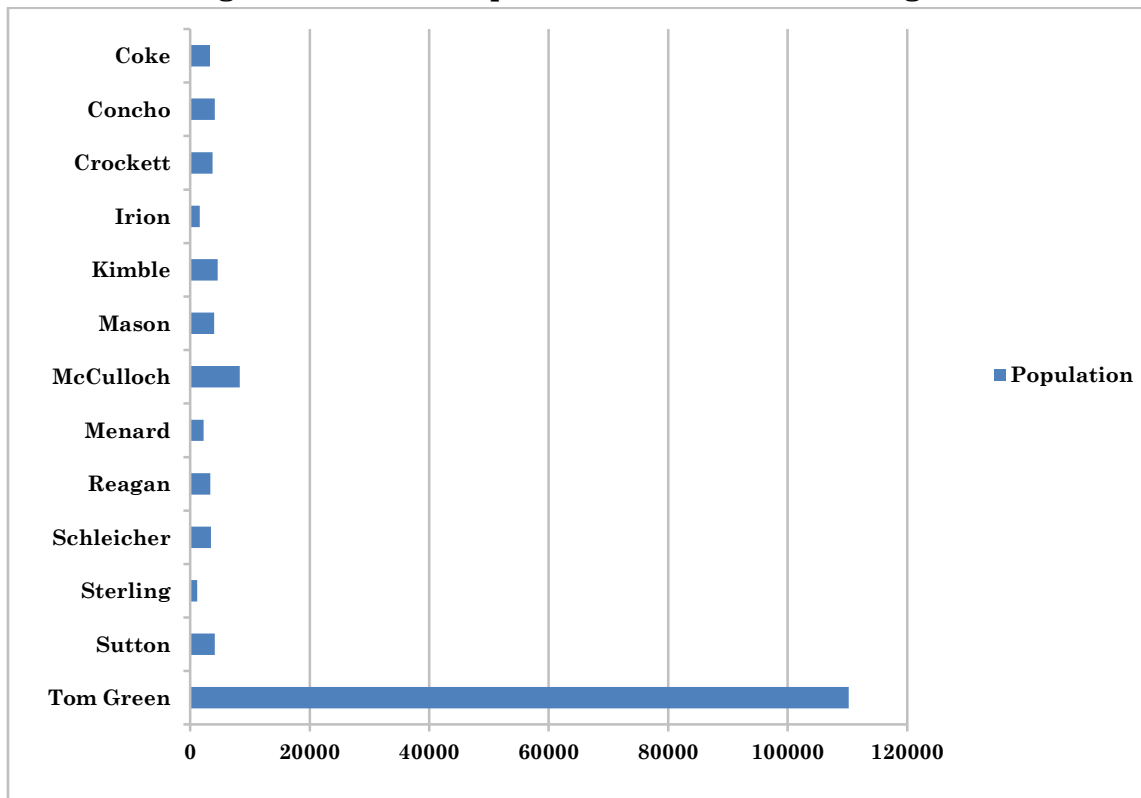
Table 3-3. 2010 Population for the CVCOG Region

| JURISDICTION | 2010 POPULATION | | PERCENTAGE – CVCOG REGION | |
|--------------------------|-----------------|-------|---------------------------|--------|
| Coke County | 3,320 | | 2.2% | |
| Bronte | | 999 | | 30.1% |
| Robert Lee | | 1,049 | | 31.6% |
| Uninc. Coke County | | 1,272 | | 38.3% |
| Concho County | 4,087 | | 2.7% | |
| Eden | | 2,766 | | 67.7% |
| Paint Rock | | 273 | | 6.7% |
| Uninc. Concho County | | 1,048 | | 25.6% |
| Crockett County | 3,719 | | 2.4% | |
| (No Incorporated Cities) | | | | |
| Uninc. Crockett County | | 3,719 | | 100.0% |
| Irion County | 1,599 | | 1.0% | |
| Mertzon | | 781 | | 48.8% |
| Uninc. Irion County | | 818 | | 51.2% |
| Kimble County | 4,607 | | 3.0% | |
| Junction | | 2,574 | | 55.9% |
| Uninc. Kimble County | | 2,033 | | 44.1% |
| McCulloch County | 8,283 | | 5.4% | |
| Brady | | 5,528 | | 66.7% |
| Melvin | | 178 | | 2.1% |
| Uninc. McCulloch County | | 2,577 | | 31.1% |
| Mason County | 4,012 | | 2.6% | |
| Menard County | 2,242 | | 1.5% | |
| Menard | | 1,471 | | 65.6% |
| Uninc. Menard County | | 771 | | 34.4% |
| Reagan County | 3,367 | | 2.2% | |

Regional Profile

| JURISDICTION | 2010 POPULATION | | PERCENTAGE – CVCOG REGION | |
|------------------------------|-----------------|----------------|---------------------------|-------------|
| Big Lake | | 2,936 | | 87.2% |
| Uninc. Reagan County | | 431 | | 12.8% |
| Schleicher County | 3,461 | | 2.2% | |
| Eldorado | | 1,951 | | 56.4% |
| Uninc. Schleicher County | | 1,510 | | 43.6% |
| Sterling County | 1,143 | | 0.7% | |
| Sterling City | | 888 | | 77.7% |
| Uninc. Sterling County | | 255 | | 22.3% |
| Sutton County | 4,128 | | 2.7% | |
| Sonora | | 3,027 | | 73.3% |
| Uninc. Sutton County | | 1,101 | | 26.7% |
| Tom Green County | 110,224 | | 71.5% | |
| San Angelo | | 93,200 | | 84.6% |
| Uninc. Tom Green County | | 17,024 | | 15.4% |
| TOTALS FOR STUDY AREA | | 154,192 | | 100% |

Figure 3-15. 2010 Population for the CVCOG Region



Population Growth

The CVCOG Region experienced an increase in population between 1980 and 2010 by 19.5 percent or 25,185 people. The counties of Concho, Irion, Kimble, Schleicher, and Tom Green all exhibited a significant increase in population between 1980 and 2010 by 13.4 percent or higher, with all continuing to have population growth between 2000 and 2010, except Irion County. Between 2000 and 2010, two of the counties experienced significant population losses of 14.1 percent or higher, while three counties saw their population decline slightly. During that same time period, McCulloch, Mason, Reagan, and Sutton Counties had population growth.

Table 3-4. Population for the CVCOG Region, 1980 – 2010

| COUNTY | 1980 | 1990 | 2000 | 2010 | POP CHANGE 1980-2010 | PERCENT OF CHANGE | POP CHANGE 2000-2010 | PERCENT OF CHANGE |
|------------------------------|----------------|----------------|----------------|----------------|----------------------|-------------------|----------------------|-------------------|
| Coke | 3,196 | 3,424 | 3,864 | 3,320 | 124 | 3.9% | -544 | -14.1% |
| Concho | 2,915 | 3,044 | 3,966 | 4,087 | 1,172 | 40.2% | 121 | 3.1% |
| Crockett | 4,608 | 4,078 | 4,099 | 3,719 | -889 | -19.3% | -380 | -9.3% |
| Irion | 1,386 | 1,629 | 1,771 | 1,599 | 213 | 15.4% | -172 | -9.7% |
| Kimble | 4,063 | 4,122 | 4,468 | 4,607 | 544 | 13.4% | 139 | 3.1% |
| Mason | 3,683 | 3,423 | 3,738 | 4,012 | 329 | 8.9% | 274 | 7.3% |
| McCulloch | 8,735 | 8,778 | 8,205 | 8,283 | -452 | -5.2% | 78 | 1.0% |
| Menard | 2,346 | 2,252 | 2,360 | 2,242 | -104 | -4.4% | -118 | -5.0% |
| Reagan | 4,135 | 4,514 | 3,326 | 3,367 | -768 | -18.6% | 41 | 1.2% |
| Schleicher | 2,820 | 2,990 | 2,935 | 3,461 | 641 | 22.7% | 526 | 17.9% |
| Sterling | 1,206 | 1,438 | 1,393 | 1,143 | -63 | -5.2% | -250 | -17.9% |
| Sutton | 5,130 | 4,135 | 4,077 | 4,128 | -1,002 | -19.5% | 51 | 1.3% |
| Tom Green | 84,784 | 98,458 | 104,010 | 110,224 | 25,440 | 30.0% | 6,214 | 6.0% |
| TOTALS FOR STUDY AREA | 129,007 | 142,285 | 148,212 | 154,192 | 25,185 | 19.5% | 5,980 | 4.0% |

Age

The median age of persons living in the CVCOG Region varies for the different counties ranging from 32 years of age to 48 years of age, according to the 2010 U.S. Census Bureau. Reagan County has the highest percentage of persons under the age of 18, with 30.8 percent of the population. The county with the highest percentage of persons 65 years of age and older is Menard County, with 26.8 percent of the population.

Table 3-5. Age of Population for the CVCOG Region

| JURISDICTION | MEDIAN AGE | UNDER 18 | AGE 18 TO 24 | AGE 25 TO 34 | AGE 35 TO 44 | AGE 45 TO 54 | AGE 55 TO 64 | AGE 65 TO 74 | AGE 75 TO 84 | AGE 85+ |
|--------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| Coke County | 48.4 | 21.1% | 5.3% | 8.8% | 9.4% | 15.0% | 14.4% | 14.4% | 9.0% | 2.6% |
| Bronte | 41.3 | 27.9% | 4.9% | 10.2% | 12.0% | 12.5% | 11.3% | 10.3% | 7.2% | 3.6% |
| Robert Lee | 45.8 | 22.6% | 6.6% | 10.7% | 9.1% | 14.7% | 11.0% | 11.6% | 11.2% | 2.7% |
| Concho County | 41.4 | 14.1% | 6.7% | 17.1% | 19.8% | 16.4% | 12.3% | 8.3% | 3.9% | 1.5% |
| Eden | 38.9 | 11.6% | 7.8% | 21.6% | 24.8% | 16.5% | 9.5% | 4.6% | 2.3% | 1.2% |
| Paint Rock | 40.3 | 28.6% | 6.2% | 9.5% | 13.6% | 17.2% | 12.8% | 7.7% | 3.7% | 0.7% |
| Crockett County | 39.1 | 26.7% | 6.5% | 11.9% | 12.0% | 15.1% | 13.1% | 8.5% | 4.5% | 1.7% |
| (No Incorporated Cities) | | | | | | | | | | |
| Irion County | 45.1 | 23.0% | 6.8% | 8.3% | 11.7% | 18.6% | 13.4% | 10.5% | 6.1% | 1.6% |
| Mertzon | 40.9 | 25.7% | 7.3% | 9.1% | 12.9% | 18.2% | 11.5% | 8.2% | 5.8% | 1.3% |
| Kimble County | 48.6 | 20.4% | 5.3% | 9.1% | 10.4% | 14.4% | 17.7% | 13.0% | 7.4% | 2.5% |
| Junction | 40.8 | 25.1% | 6.8% | 11.5% | 11.0% | 14.2% | 13.3% | 9.9% | 5.4% | 2.8% |
| McCulloch County | 43.5 | 24.6% | 6.4% | 9.7% | 11.1% | 13.7% | 14.6% | 10.4% | 6.9% | 2.6% |
| Brady | 51.5 | 19.1% | 3.9% | 10.1% | 7.3% | 15.2% | 16.9% | 14.6% | 10.7% | 2.2% |
| Melvin | 50.4 | 19.6% | 5.7% | 8.6% | 8.5% | 15.2% | 15.7% | 14.3% | 9.1% | 3.4% |
| Menard County | 46.9 | 22.6% | 6.3% | 9.9% | 9.3% | 15.2% | 14.5% | 10.3% | 7.9% | 4.0% |
| Menard | 33.5 | 30.0% | 8.5% | 13.4% | 12.3% | 14.6% | 10.8% | 5.9% | 3.6% | 0.9% |
| Reagan County | 32.5 | 30.8% | 9.0% | 13.5% | 12.4% | 14.2% | 10.2% | 5.7% | 3.5% | 0.8% |
| Big Lake | 33.7 | 31.9% | 7.7% | 11.8% | 11.4% | 11.9% | 12.5% | 7.5% | 4.3% | 0.9% |
| Schleicher County | 34.6 | 29.9% | 7.4% | 13.1% | 11.7% | 12.9% | 12.6% | 6.9% | 4.6% | 0.8% |
| Eldorado | 41.8 | 24.4% | 7.6% | 12.2% | 10.1% | 16.1% | 13.1% | 7.4% | 6.6% | 2.4% |
| Sterling County | 42.5 | 24.5% | 7.8% | 10.9% | 10.4% | 17.3% | 12.3% | 7.1% | 6.8% | 2.9% |
| Sterling City | 38.7 | 27.5% | 7.3% | 10.9% | 12.5% | 14.8% | 13.2% | 7.5% | 5.1% | 1.2% |
| Sutton County | 35.4 | 30.0% | 7.9% | 11.6% | 13.1% | 14.3% | 10.6% | 6.6% | 4.9% | 1.0% |
| Sonora | 34.3 | 23.5% | 13.9% | 13.4% | 11.0% | 13.1% | 11.3% | 7.2% | 4.8% | 1.9% |
| Tom Green County | 32.8 | 23.4% | 15.0% | 14.1% | 10.7% | 12.4% | 10.7% | 6.9% | 4.9% | 2.0% |
| San Angelo | 48.4 | 21.1% | 5.3% | 8.8% | 9.4% | 15.0% | 14.4% | 14.4% | 9.0% | 2.6% |

Ethnicity

The CVCOG Region is ethnically diverse varying considerably among the counties. Crockett County has the highest population of residents whose ethnicity is Hispanic alone at 63.2 percent; they also have the lowest percentage of residents with an ethnicity of white alone at 35.3 percent. Coke County’s population is mainly of white alone ethnicity at 79.9 percent. A relatively small percentage of African Americans, American Indians, Asians, and Native Hawaiians reside in the CVCOG Region.

Table 3-6. Ethnicity for the CVCOG Region

| JURISDICTION | HISPANIC ALONE | WHITE ALONE | AFRICAN AMERICAN ALONE | AMERICAN INDIAN & ALASKAN NATIVE ALONE | ASIAN ALONE | NATIVE HAWAIIAN/ PACIFIC ISLANDER ALONE | OTHER RACE ALONE | MULTI-RACIAL |
|--------------------------|----------------|--------------|------------------------|--|-------------|---|------------------|--------------|
| Coke County | 18.1% | 79.8% | 0.2% | 0.6% | 0.2% | 0.0% | 0.0% | 1.1% |
| Bronte | 22.3% | 75.4% | 0.6% | 0.3% | 0.1% | 0.1% | 0.0% | 1.2% |
| Robert Lee | 23.3% | 74.1% | 0.1% | 1.1% | 0.0% | 0.0% | 0.0% | 1.4% |
| Concho County | 53.2% | 44.3% | 1.4% | 0.3% | 0.3% | 0.1% | 0.0% | 0.3% |
| Eden | 68.5% | 28.5% | 2.0% | 0.2% | 0.4% | 0.2% | 0.1% | 0.2% |
| Paint Rock | 27.8% | 68.5% | 0.0% | 1.8% | 0.7% | 0.0% | 0.0% | 1.1% |
| Crockett County | 63.2% | 35.3% | 0.3% | 0.2% | 0.3% | 0.0% | 0.1% | 0.5% |
| (No Incorporated Cities) | | | | | | | | |
| Irion County | 25.5% | 72.1% | 0.7% | 0.4% | 0.2% | 0.0% | 0.0% | 1.1% |
| Mertzson | 35.9% | 61.1% | 1.2% | 0.1% | 0.1% | 0.0% | 0.0% | 1.7% |
| Kimble County | 23.4% | 74.9% | 0.3% | 0.4% | 0.4% | 0.1% | 0.1% | 0.4% |
| Junction | 33.1% | 65.6% | 0.2% | 0.1% | 0.2% | 0.0% | 0.2% | 0.5% |
| McCulloch County | 29.9% | 67.2% | 1.6% | 0.3% | 0.3% | 0.0% | 0.1% | 0.5% |
| Melvin | 34.3% | 65.2% | 0.0% | 0.6% | 0.0% | 0.0% | 0.0% | 0.0% |
| Menard County | 35.2% | 63.6% | 0.5% | 0.3% | 0.1% | 0.0% | 0.0% | 0.3% |
| Menard | 45.9% | 53.2% | 0.4% | 0.3% | 0.0% | 0.0% | 0.1% | 0.1% |
| Reagan County | 60.9% | 36.2% | 1.9% | 0.2% | 0.0% | 0.0% | 0.0% | 0.7% |
| Big Lake | 62.4% | 34.7% | 2.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.6% |
| Schleicher County | 44.4% | 54.1% | 0.9% | 0.0% | 0.1% | 0.0% | 0.0% | 0.5% |

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| JURISDICTION | HISPANIC ALONE | WHITE ALONE | AFRICAN AMERICAN ALONE | AMERICAN INDIAN & ALASKAN NATIVE ALONE | ASIAN ALONE | NATIVE HAWAIIAN/ PACIFIC ISLANDER ALONE | OTHER RACE ALONE | MULTI-RACIAL |
|-------------------------|----------------|--------------|------------------------|--|-------------|---|------------------|--------------|
| Eldorado | 61.3% | 37.0% | 1.0% | 0.1% | 0.2% | 0.0% | 0.0% | 0.5% |
| Sterling County | 31.9% | 64.1% | 1.1% | 1.1% | 0.0% | 0.0% | 0.2% | 1.5% |
| Sterling City | 36.5% | 59.8% | 1.5% | 0.8% | 0.0% | 0.0% | 0.2% | 1.2% |
| Sutton County | 59.6% | 39.7% | 0.1% | 0.0% | 0.1% | 0.0% | 0.2% | 0.2% |
| Sonora | 62.7% | 36.8% | 0.1% | 0.0% | 0.1% | 0.0% | 0.1% | 0.2% |
| Tom Green County | 35.7% | 57.9% | 3.6% | 0.4% | 0.9% | 0.1% | 0.1% | 1.3% |
| San Angelo | 38.5% | 54.4% | 4.2% | 0.4% | 1.1% | 0.1% | 0.1% | 1.4% |

Education

The level of education varies among the different jurisdictions, according to the U.S. Census Bureau 2005-2009 American Community Survey 5-year estimates. Kimble County has the highest population of people with a graduate or professional degree with 10.6 percent. In the CVCOG Region, the highest percentage of population with a Bachelors Degree resides in Sterling County with 19.8 percent of their population. Table 3-7 depicts the level of education data for the CVCOG Region.

Table 3-7. Level of Education for the CVCOG Region

| JURISDICTION | GRADUATE OR PROFESSIONAL DEGREE | BACHELORS DEGREE | ASSOCIATES DEGREE | SOME COLLEGE, NO DEGREE | HIGH SCHOOL GRADUATE | NO DIPLOMA |
|--------------------------|---------------------------------|------------------|-------------------|-------------------------|----------------------|--------------|
| Coke County | 2.9% | 8.4% | 7.7% | 22.8% | 38.9% | 19.2% |
| Bronte | 2.9% | 8.8% | 9.8% | 21.9% | 34.6% | 22.0% |
| Robert Lee | 3.1% | 4.2% | 7.4% | 17.9% | 45.7% | 21.7% |
| Concho County | 3.3% | 9.2% | 5.2% | 19.2% | 37.0% | 26.2% |
| Eden | 3.0% | 9.3% | 3.6% | 17.0% | 35.3% | 31.9% |
| Paint Rock | 0.6% | 13.1% | 8.0% | 31.4% | 24.0% | 22.9% |
| Crockett County | 0.0% | 12.0% | 6.0% | 15.1% | 22.5% | 44.4% |
| (No Incorporated Cities) | | | | | | |
| Irion County | 1.8% | 10.4% | 9.6% | 13.1% | 44.8% | 20.2% |
| Mertzon | 2.0% | 7.2% | 8.1% | 8.9% | 41.8% | 32.0% |

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| JURISDICTION | GRADUATE OR PROFESSIONAL DEGREE | BACHELORS DEGREE | ASSOCIATES DEGREE | SOME COLLEGE, NO DEGREE | HIGH SCHOOL GRADUATE | NO DIPLOMA |
|--------------------------|---------------------------------|------------------|-------------------|-------------------------|----------------------|--------------|
| Kimble County | 10.6% | 10.9% | 4.5% | 25.6% | 25.9% | 22.5% |
| Junction | 7.3% | 7.5% | 2.5% | 27.6% | 24.8% | 30.3% |
| McCulloch County | 5.5% | 13.5% | 3.7% | 20.2% | 32.6% | 24.5% |
| Brady | 4.0% | 11.5% | 2.7% | 21.1% | 33.9% | 26.8% |
| Melvin | 0.0% | 2.0% | 0.0% | 24.0% | 36.0% | 38.0% |
| Menard County | 2.9% | 7.5% | 0.9% | 28.5% | 38.2% | 22.1% |
| Menard | 2.3% | 5.3% | 1.4% | 23.1% | 41.4% | 26.6% |
| Reagan County | 3.5% | 5.5% | 4.4% | 18.3% | 32.6% | 35.6% |
| Big Lake | 4.0% | 4.5% | 3.6% | 16.5% | 35.4% | 35.9% |
| Schleicher County | 1.9% | 16.0% | 4.3% | 18.2% | 31.1% | 28.5% |
| Eldorado | 1.9% | 13.0% | 5.1% | 15.6% | 31.6% | 32.7% |
| Sterling County | 2.2% | 19.8% | 4.0% | 15.2% | 31.2% | 27.6% |
| Sterling City | 2.3% | 14.0% | 5.2% | 15.1% | 34.8% | 28.6% |
| Sutton County | 3.7% | 12.3% | 3.5% | 18.5% | 28.5% | 33.5% |
| Sonora | 2.9% | 11.2% | 2.7% | 19.2% | 33.6% | 30.4% |
| Tom Green County | 6.0% | 15.3% | 6.7% | 23.1% | 29.1% | 19.8% |
| San Angelo | 6.1% | 15.4% | 6.7% | 23.1% | 29.0% | 19.6% |

Household Income

The data for household income is reported from the 2005-2009 5-year estimates of the U.S. Census Bureau's American Community Survey. The median household income for the State of Texas is \$48,199 and the median household income for the United States is \$51,425. The jurisdiction with the highest median household income in the CVCOG Region is the City of Sonora in Sutton County, which is \$57,156. There are two other cities and towns whose median household income is higher than the state's. These jurisdictions are Big Lake and Eldorado. Statistics indicate that 13.2 percent of the families residing in the State of Texas are in poverty. Five counties in the CVCOG Region have a higher percentage of residents living in poverty.

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Table 3-8. Household Income for the CVCOG Region

| JURISDICTION | MEDIAN FAMILY INCOME | AT OR ABOVE \$200K | \$150,000 TO \$199,999 | \$100,000 TO \$149,999 | \$75,000 TO \$99,999 | \$50,000 TO \$74,999 | \$35,000 TO \$49,999 | \$25,000 TO \$34,999 | \$15,000 TO \$24,999 | \$10,000 TO \$14,999 | LESS THAN \$10,000 | BELOW POVERTY LEVEL |
|--------------------------|----------------------|--------------------|------------------------|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------|---------------------|
| Coke County | \$33,375 | 0.5% | 1.0% | 3.2% | 7.5% | 19.0% | 17.0% | 10.1% | 22.0% | 8.4% | 11.3% | 11.3% |
| Bronte | \$34,000 | 0.0% | 0.0% | 2.9% | 7.9% | 19.9% | 18.8% | 12.7% | 21.9% | 8.4% | 7.5% | 13.4% |
| Robert Lee | \$24,455 | 0.0% | 0.0% | 2.3% | 8.9% | 12.0% | 17.6% | 7.7% | 22.0% | 11.7% | 17.8% | 13.1% |
| Concho County | \$45,625 | 0.4% | 3.6% | 12.4% | 12.0% | 16.8% | 12.6% | 11.7% | 14.6% | 6.0% | 9.8% | 12.9% |
| Eden | \$41,875 | 0.0% | 0.4% | 14.7% | 13.7% | 16.0% | 11.4% | 4.7% | 20.0% | 8.8% | 10.4% | 10.9% |
| Paint Rock | \$47,917 | 0.0% | 14.7% | 1.8% | 3.7% | 27.5% | 15.6% | 18.3% | 13.8% | 2.8% | 1.8% | 21.2% |
| Crockett County | \$47,143 | 4.9% | 1.7% | 6.4% | 12.9% | 15.1% | 19.1% | 14.8% | 6.5% | 9.9% | 8.6% | 14.5% |
| (No Incorporated Cities) | | | | | | | | | | | | |
| Irion County | \$43,536 | 2.9% | 3.7% | 9.8% | 16.8% | 11.1% | 22.0% | 12.2% | 11.6% | 6.7% | 3.2% | 1.0% |
| Mertzon | \$37,500 | 1.6% | 0.0% | 0.0% | 18.7% | 7.0% | 37.3% | 10.1% | 13.6% | 7.6% | 4.1% | 2.3% |
| Kimble County | \$42,188 | 3.0% | 7.1% | 7.6% | 8.9% | 17.3% | 18.2% | 12.4% | 9.4% | 8.8% | 7.4% | 11.0% |
| Junction | \$35,947 | 1.4% | 3.0% | 3.9% | 7.2% | 15.7% | 20.1% | 16.3% | 13.6% | 8.3% | 10.6% | 15.7% |
| McCulloch County | \$36,495 | 2.2% | 3.2% | 5.9% | 11.5% | 12.3% | 15.8% | 11.9% | 18.1% | 8.2% | 11.0% | 16.3% |
| Melvin | \$31,563 | 0.0% | 6.6% | 0.0% | 3.3% | 11.5% | 19.7% | 13.1% | 18.0% | 14.8% | 13.1% | 0.0% |
| Menard County | \$31,016 | 3.8% | 3.4% | 4.6% | 5.6% | 18.8% | 11.7% | 9.1% | 16.1% | 8.3% | 18.6% | 16.7% |
| Menard | \$25,039 | 1.0% | 1.1% | 0.6% | 5.9% | 15.0% | 15.5% | 10.9% | 17.9% | 7.5% | 24.5% | 24.5% |
| Reagan County | \$51,619 | 0.0% | 6.8% | 6.8% | 14.6% | 28.4% | 22.9% | 4.5% | 8.9% | 1.3% | 5.8% | 7.2% |
| Big Lake | \$51,434 | 0.0% | 3.7% | 5.7% | 15.9% | 31.4% | 25.4% | 5.2% | 8.0% | 1.0% | 3.7% | 4.5% |
| Schleicher County | \$52,872 | 1.6% | 1.5% | 15.7% | 10.8% | 25.1% | 11.8% | 10.2% | 8.5% | 3.3% | 11.4% | 13.3% |
| Eldorado | \$49,948 | 1.0% | 0.5% | 12.5% | 10.7% | 25.3% | 12.8% | 9.4% | 10.6% | 2.3% | 15.1% | 19.0% |
| Sterling County | \$38,750 | 0.0% | 3.6% | 14.5% | 6.5% | 14.0% | 16.5% | 13.1% | 12.9% | 6.5% | 12.5% | 15.1% |
| Sterling City | \$32,813 | 0.0% | 2.5% | 11.8% | 7.6% | 14.9% | 11.2% | 15.7% | 12.9% | 8.1% | 15.2% | 19.1% |
| Sutton County | \$54,557 | 1.9% | 5.6% | 9.2% | 10.1% | 28.2% | 14.8% | 7.6% | 10.5% | 2.7% | 9.3% | 11.5% |
| Sonora | \$57,156 | 2.6% | 5.3% | 8.7% | 13.8% | 28.8% | 15.8% | 9.4% | 7.8% | 2.9% | 4.9% | 8.1% |
| Tom Green County | \$40,753 | 1.9% | 1.3% | 8.5% | 10.7% | 19.5% | 15.2% | 13.2% | 15.2% | 6.8% | 7.8% | 12.3% |

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| JURISDICTION | MEDIAN FAMILY INCOME | AT OR ABOVE \$200K | \$150,000 TO \$199,999 | \$100,000 TO \$149,999 | \$75,000 TO \$99,999 | \$50,000 TO \$74,999 | \$35,000 TO \$49,999 | \$25,000 TO \$34,999 | \$15,000 TO \$24,999 | \$10,000 TO \$14,999 | LESS THAN \$10,000 | BELOW POVERTY LEVEL |
|--------------|----------------------|--------------------|------------------------|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------|---------------------|
| San Angelo | \$38,777 | 1.8% | 1.0% | 7.7% | 10.1% | 19.2% | 15.4% | 13.7% | 15.6% | 7.1% | 8.5% | 13.9% |

Asset Inventory

Provided in Table 3-9 is the total estimated dollar exposure by key occupancy. This demographic and building stock data form the basis of large portions of this risk assessment and were derived from HAZUS-MH MR4. Commercial building stock data has been updated to Dun & Bradstreet 2006, building valuations have been updated to R.S. Means 2006, and building counts are based on census housing unit counts.

HAZUS-MH MR4 estimates there are around 73,000 buildings in the study area, with an aggregate value of \$8.8 billion. The buildings are broken down by occupancy, which is broken down with residential making up 95 percent, commercial making up 4.0 percent, industrial making up 1.0 percent and essential facilities making up 0.3 percent of the building inventory.

Table 3-9. Estimated Building Distribution by Key Occupancy by Jurisdiction

| JURISDICTION | RESIDENTIAL | | COMMERCIAL | | INDUSTRIAL | | ESSENTIAL FACILITIES | |
|--------------------------|--------------|----------------------|------------|---------------------|------------|---------------------|----------------------|---------------------|
| | Number | Value | Number | Value | Number | Value | Number | Value |
| Coke County | 3,454 | \$260,965,000 | 69 | \$15,165,000 | 18 | \$4,151,000 | 12 | \$14,811,000 |
| Bronte | 610 | \$46,175,000 | 19 | \$4,317,000 | 4 | \$572,000 | 4 | \$5,959,000 |
| Robert Lee | 941 | \$58,440,000 | 21 | \$5,921,000 | 4 | \$870,000 | 7 | \$7,606,000 |
| Uninc. Coke County | 1,903 | \$156,350,000 | 29 | \$4,927,000 | 10 | \$2,709,000 | 1 | \$1,246,000 |
| Concho County | 1,860 | \$146,542,000 | 54 | \$20,429,000 | 13 | \$7,991,000 | 14 | \$17,235,000 |
| Eden | 709 | \$70,726,000 | 29 | \$8,983,000 | 6 | \$7,038,000 | 8 | \$12,678,000 |
| Paint Rock | 172 | \$9,407,000 | 2 | \$854,000 | 1 | \$58,000 | 2 | \$1,762,000 |
| Uninc. Concho County | 979 | \$66,409,000 | 23 | \$592,000 | 6 | \$895,000 | 4 | \$2,795,000 |
| Crockett County | 2,673 | \$203,021,000 | 103 | \$41,899,000 | 25 | \$7,504,000 | 6 | \$9,382,000 |
| (No Incorporated Cities) | | | | | | | | |
| Irion County | 1,100 | \$87,751,000 | 32 | \$14,958,000 | 13 | \$3,572,000 | 3 | \$5,209,000 |
| Mertzon | 450 | \$29,214,000 | 19 | \$5,211,000 | 6 | \$792,000 | 0 | \$0 |
| Uninc. Irion County | 650 | \$58,537,000 | 13 | \$9,747,000 | 7 | \$2,780,000 | 3 | \$5,209,000 |
| Kimble County | 3,835 | \$281,753,000 | 114 | \$32,598,000 | 35 | \$18,374,000 | 6 | \$1,367,500 |
| Junction | 1,708 | \$106,456,000 | 96 | \$27,264,000 | 22 | \$10,386,000 | 6 | \$1,367,500 |
| Uninc. Kimble County | 2,127 | \$175,297,000 | 18 | \$8,334,000 | 13 | \$7,988,000 | 0 | \$0 |

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| JURISDICTION | RESIDENTIAL | | COMMERCIAL | | INDUSTRIAL | | ESSENTIAL FACILITIES | |
|------------------------------|---------------|------------------------|--------------|------------------------|------------|----------------------|----------------------|----------------------|
| | Number | Value | Number | Value | Number | Value | Number | Value |
| McCulloch County | 5,174 | \$352,119,000 | 208 | \$59,298,000 | 44 | \$14,825,000 | 14 | \$38,078,000 |
| Melvin | 100 | \$8,627,000 | 1 | \$70,000 | 0 | \$0 | 0 | \$0 |
| Uninc. McCulloch County | 5,074 | \$343,492,000 | 207 | \$59,228,000 | 44 | \$14,825,000 | 14 | \$38,078,000 |
| Menard County | 1,865 | \$133,880,000 | 23 | \$7,733,000 | 9 | \$1,100,000 | 5 | \$5,112,000 |
| Menard | 1,124 | \$66,088,000 | 15 | \$6,233,000 | 7 | \$876,000 | 5 | \$5,112,000 |
| Uninc. Menard County | 738 | \$67,792,000 | 8 | \$1,500,000 | 2 | \$254,000 | 0 | \$0 |
| Reagan County | 1,997 | \$128,232,000 | 81 | \$24,596,000 | 29 | \$12,555,000 | 7 | \$11,204,000 |
| Big Lake | 1,398 | \$103,847,000 | 71 | \$22,956,000 | 23 | \$7,812,000 | 7 | \$11,204,000 |
| Uninc. Reagan County | 599 | \$24,385,000 | 10 | \$1,640,000 | 6 | \$4743 | 0 | \$0 |
| Schleicher County | 1,994 | \$134,153,000 | 56 | \$18,971,000 | 10 | \$3,124,000 | 7 | \$10,456,000 |
| Eldorado | 1,360 | \$79,275,000 | 33 | \$10,848,000 | 6 | \$1,518,000 | 2 | \$2,337,000 |
| Uninc. Schleicher County | 634 | \$54,878,000 | 23 | \$8,123,000 | 4 | \$1,606 | 5 | \$8,119,000 |
| Sterling County | 901 | \$69,708,000 | 25 | \$9,080,000 | 10 | \$3,138,000 | 4 | \$3,873,000 |
| Sterling City | 656 | \$54,148,000 | 17 | \$5,425,000 | 8 | \$2,571,000 | 4 | \$3,873,000 |
| Uninc. Sterling County | 251 | \$15,560,000 | 8 | \$3,655 | 2 | \$567,000 | 0 | \$0 |
| Sutton County | 2,360 | \$201,834,000 | 112 | \$35,305,000 | 29 | \$6,973,000 | 7 | \$17,292,000 |
| Sonora | 1,476 | \$119,877,000 | 83 | \$21,115,000 | 23 | \$4,876,000 | 7 | \$17,292,000 |
| Uninc. Sutton County | 2,213 | \$81,957 | 29 | \$14,190,000 | 6 | \$2,097,000 | 0 | \$0 |
| Tom Green County | 41,598 | \$4,708,700,000 | 2,167 | \$929,553,000 | 557 | \$216,027,000 | 117 | \$400,375,000 |
| San Angelo | 34,189 | \$4,047,547,000 | 1,884 | \$858,310,000 | 433 | \$190,929,000 | 54 | \$326,105,000 |
| Uninc. Tom Green County | 7,409 | \$661,153,000 | 283 | \$71,243 | 124 | \$25,098 | 63 | \$74,270,000 |
| TOTALS FOR STUDY AREA | 68,811 | \$6,708,658,000 | 3,044 | \$1,209,585,000 | 792 | \$299,334,000 | 202 | \$534,394,500 |

Future Development

CVCOG provides assistance to the local governments in its 13-county statutory district, which includes Coke, Concho, Crockett, Irion, Kimble, McCulloch, Mason, Menard, Reagan, Schleicher, Sterling, Sutton and Tom Green counties (not all of which are participating in this risk assessment). CVCOG administers a program for community and economic development assistance funds, where they assist local cities and counties in acquiring

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information about available grants and the information needed for the grants to help with future development.

To better understand how future growth and developments in this region might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts.

This section includes an analysis of the projected population change, the number of permits that have been issued throughout the region and economic impacts.

Population projections from 2010 to 2040 are listed in Table 3-10 and illustrated in Figures 3-16a and 3-16b, as provided by the Office of the State Demographer, Texas State Data Center, and Institute for Demographic and Socioeconomic Research. Population projects were based on a 0.5 scenario growth rate, which is 50 percent of the population growth rate that occurred during 1990-2000.

Table 3-10. CVCOG Study Area Population Projections

| COUNTY | LAND AREA | 2010 | | 2020 | | 2030 | | 2040 | |
|------------|-----------|--------------|----------------------------|--------------|----------------------------|--------------|----------------------------|--------------|----------------------------|
| | | Population | | | | | | | |
| | | Total Number | Density (Land Area, SQ MI) | Total Number | Density (Land Area, SQ MI) | Total Number | Density (Land Area, SQ MI) | Total Number | Density (Land Area, SQ MI) |
| Coke | 915.07 | 3,320 | 4 | 3,813 | 4 | 3,598 | 4 | 3,394 | 4 |
| Concho | 988.00 | 4,087 | 4 | 4,095 | 4 | 3,853 | 4 | 3,368 | 3 |
| Crockett | 2,808.63 | 3,719 | 1 | 4,733 | 2 | 4,696 | 2 | 4,516 | 2 |
| Irion | 1,053.06 | 1,599 | 2 | 1,789 | 2 | 1,651 | 2 | 1,429 | 1 |
| Kimble | 1,254.69 | 4,607 | 4 | 4,572 | 4 | 4,411 | 4 | 4,261 | 3 |
| McCulloch | 933.10 | 8,283 | 9 | 8,722 | 9 | 8,685 | 9 | 8,484 | 9 |
| Menard | 1,073.40 | 2,242 | 2 | 2,436 | 2 | 2,322 | 2 | 2,204 | 2 |
| Reagan | 904.53 | 3,367 | 4 | 4,166 | 5 | 4,364 | 5 | 4,380 | 5 |
| Schleicher | 1,178.20 | 3,461 | 3 | 3,349 | 3 | 3,396 | 3 | 3,323 | 3 |
| Sterling | 1,313.23 | 1,143 | 1 | 1,535 | 1 | 1,485 | 1 | 1,366 | 1 |
| Sutton | 924.65 | 4,128 | 4 | 4,883 | 5 | 4,937 | 5 | 4,930 | 5 |
| Tom Green | 1,456.73 | 110,224 | 76 | 117,729 | 81 | 121,484 | 83 | 123,394 | 85 |

Figure 3-16a. CVCOG Study Area Population Projections

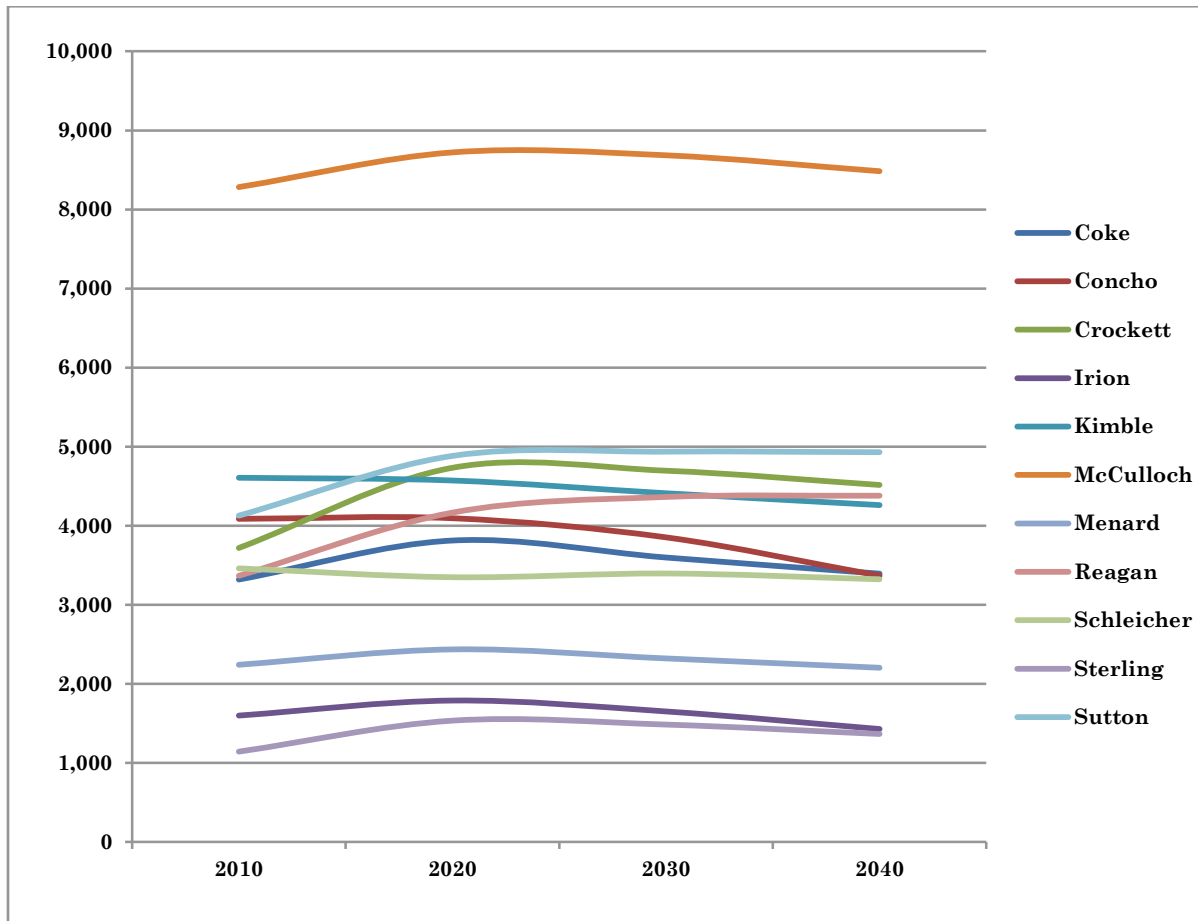
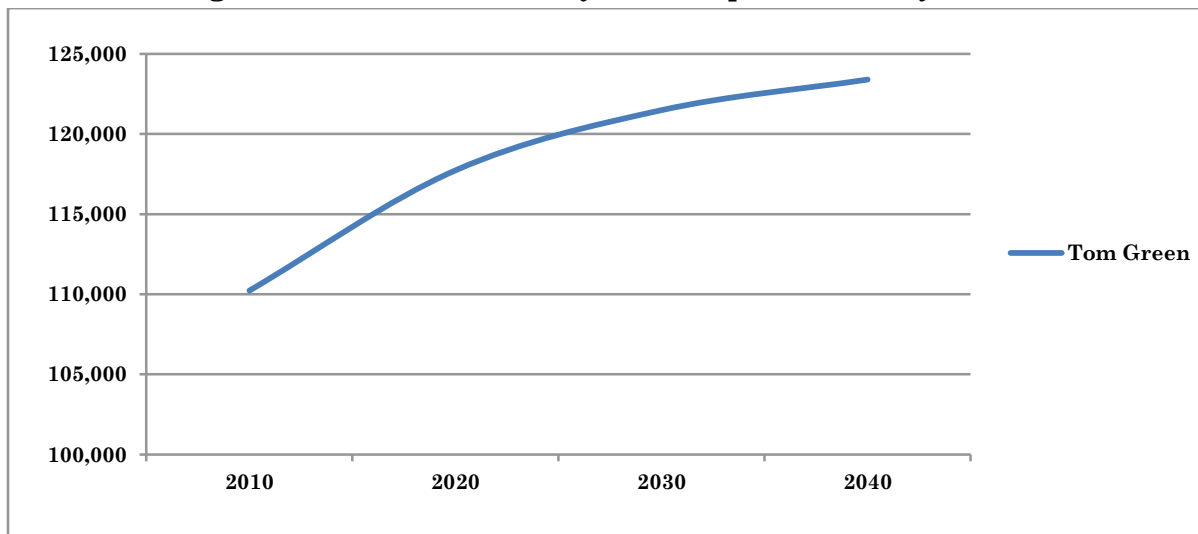


Figure 3-16b. CVCOG Study Area Population Projections



Economic Impacts

The economy is vital to all infrastructures. CVCOG administers the Concho Valley Economic Development District, which serves all thirteen counties in the CVCOG Region with planning, grant search, grant writing, business development and technical assistance. Located in the CVCOG Region is also the Concho Valley Center for Entrepreneurial Development to help with economic development by providing management and technical assistance. Their mission is to “grow and support new business in the Concho Valley.” They offer a wide range of services to clients from strategic planning and business development assistance to support services. One of the many reasons they decided to locate in the Concho Valley Region is because the City of San Angelo was listed on the 2002 Forbes/Milliken Best Places for Business and Careers.

A major key to the economy of the area is agriculture. Agriculture is one of the largest industries in the CVCOG and brings in a significant amount of revenue for the area. In the CVCOG Region, majority of the land is comprised of farm and ranch land, primarily used for cattle, sheep, goats, grain, pecans, hay, and cotton. Concho, Kimble, McCulloch, and Menard Counties rely on an agricultural economy, where Coke, Crockett, Irion, Reagan, Schleicher, Sutton, and Tom Green Counties are the largest oil and gas producing lands of the Concho Valley Region.

Additionally, a critical portion of the economy lies within the major industries in the Concho Valley Region. With many being in Tom Green County, the major employers are Goodfellow Air Force Base (4,990 employees), Shannon Health System (2,565), San Angelo ISD (2,063), Angelo State University (1,635), City of San Angelo (877), San Angelo State Supported Living Center (860), San Angelo Community Medical Center (843), Tom Green County (748), and SITEL, Inc. (715).

For a broader perspective on occupation and development in the CVCOG Region, Figures 3-17a through 3-17c display the percentage of occupation by industry for each of the counties in the area.

Figure 3-17a. Occupation by Industry

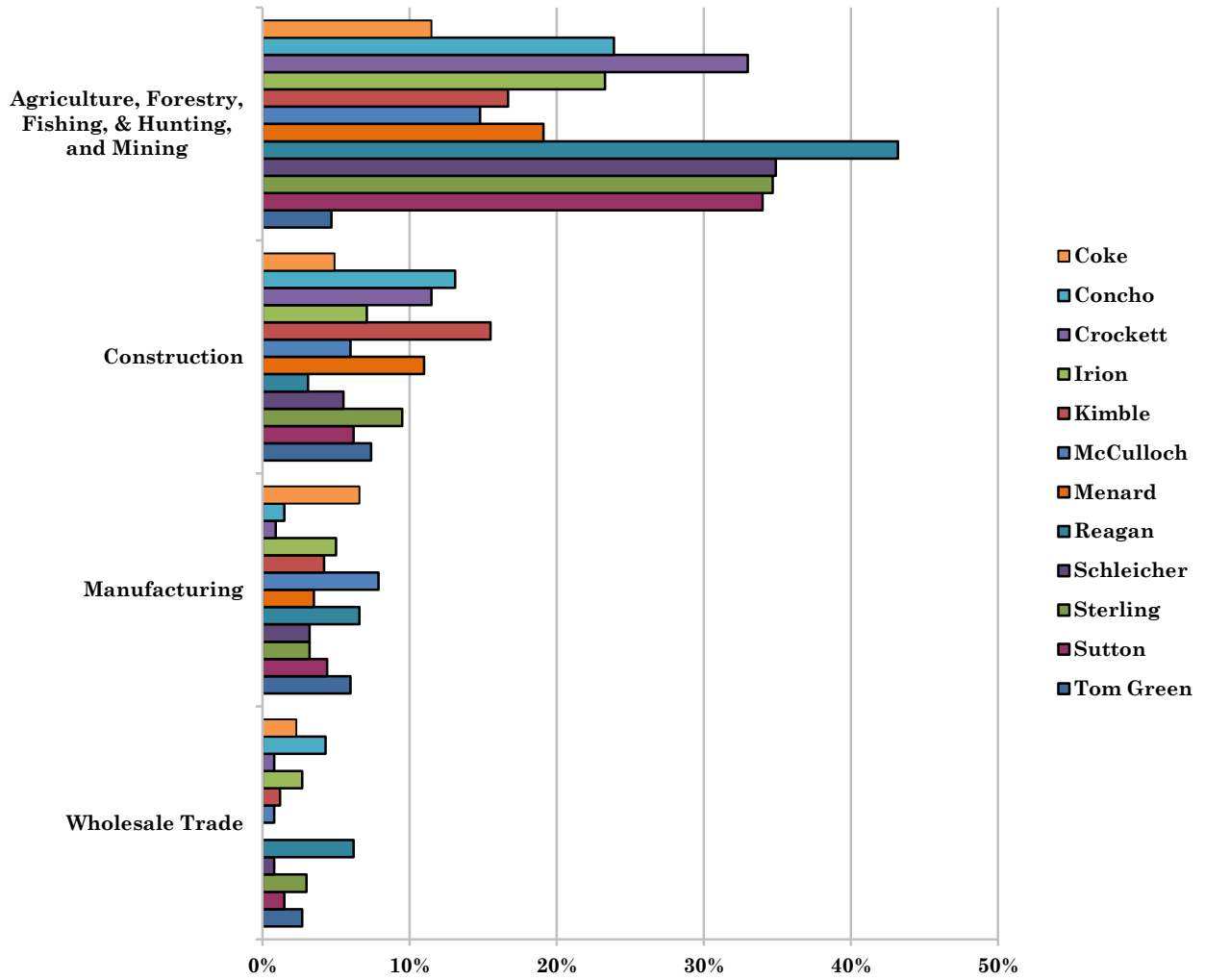


Figure 3-17b. Occupation by Industry

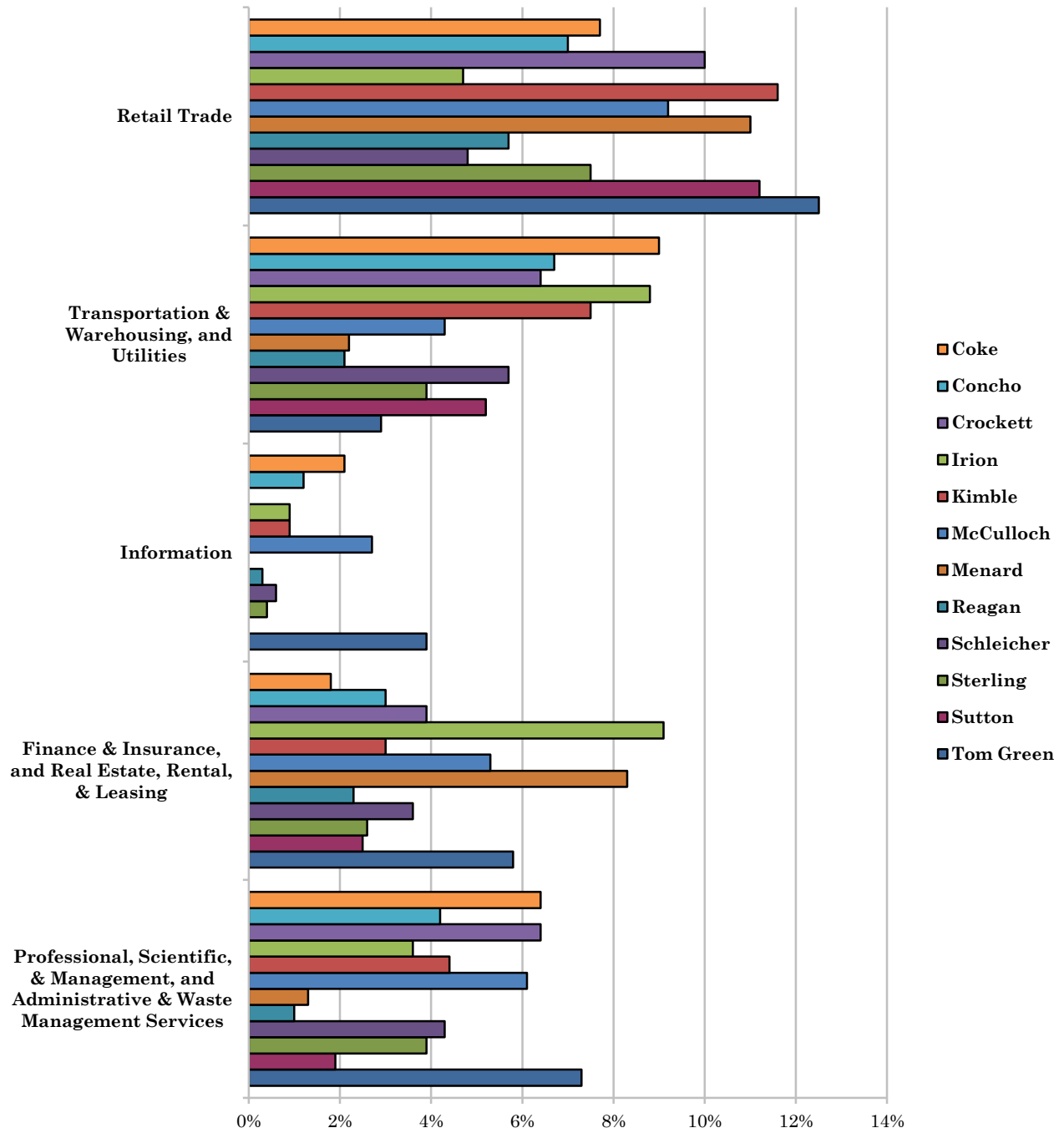
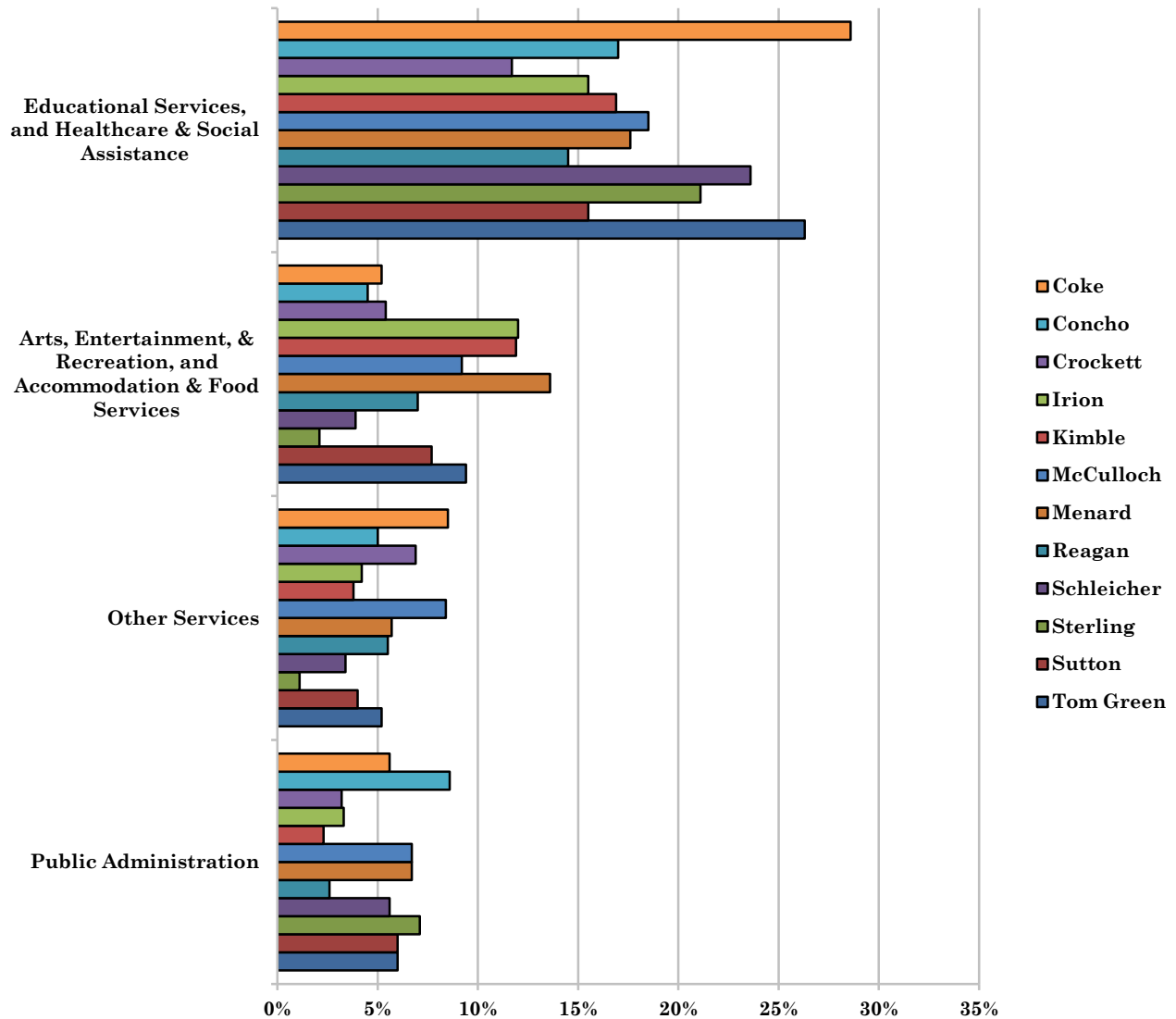


Figure 3-17c. Occupation by Industry



Also of importance to note, is the transportation capability for the CVCOG Region. There is one major interstate, Interstate 10, which provides access to Kimble, Sutton, and Crockett Counties. The other major roadways are US 87 that connects Sterling, Tom Green, Concho, and McCulloch Counties; US 83 that runs through Concho, Menard, and Kimble Counties; US 67, which passes through Tom Green, Irion, and Reagan Counties; and US 277 that goes through Coke, Tom Green, Schleicher, and Sutton Counties. There also are railways that service the area in the Counties of Irion, McCulloch, Reagan, and Tom Green. There is one commercial airport in the City of San Angelo in Tom Green County, and multiple small community airports for local use spread throughout the Concho Valley Region.

Building Permits

Building permits indicate what types of buildings are being constructed and their relative uses. Table 3-11 lists the number of residential building permits for each county that have been granted between 1990 and 2010. The data includes all sizes of family homes for reported permits, as well as the construction costs to show the potential increase in vulnerability of structures to the various hazards assessed in this risk assessment. The increase in vulnerability can be attributed to the higher construction costs that would be factored into repairing or replacing a structure using current market values. Permits are reported annually in September and the data includes that for the years of 2009 and 2010 if available to demonstrate growth.

Table 3-11. County Residential Building Permits¹

| Coke County | | | | Concho County | | | |
|-----------------|------------------|-------|-------------------|------------------|------------------|-------|-------------------|
| Year | Buildings | Units | Construction Cost | Year | Buildings | Units | Construction Cost |
| 1990 | 6 | 6 | \$208,365 | 1990 | No data reported | | |
| 1995 | 1 | 1 | \$100,000 | 1995 | No data reported | | |
| 2000 | 0 | 0 | \$0 | 2000 | No data reported | | |
| 2005 | 0 | 0 | \$0 | 2005 | No data reported | | |
| 2009 | 0 | 0 | \$0 | 2009 | No data reported | | |
| 2010 | 0 | 0 | \$0 | 2010 | No data reported | | |
| Crockett County | | | | Irion County | | | |
| Year | Buildings | Units | Construction Cost | Year | Buildings | Units | Construction Cost |
| 1990 | No data reported | | | 1990 | No data reported | | |
| 1995 | No data reported | | | 1995 | No data reported | | |
| 2000 | No data reported | | | 2000 | No data reported | | |
| 2005 | No data reported | | | 2005 | No data reported | | |
| 2009 | No data reported | | | 2009 | No data reported | | |
| 2010 | No data reported | | | 2010 | No data reported | | |
| Kimble County | | | | McCulloch County | | | |
| Year | Buildings | Units | Construction Cost | Year | Buildings | Units | Construction Cost |
| 1990 | 4 | 4 | \$154,000 | 1990 | 3 | 3 | \$160,000 |
| 1995 | 7 | 7 | \$176,000 | 1995 | 11 | 11 | \$689,800 |
| 2000 | 0 | 0 | \$0 | 2000 | 5 | 6 | \$275,000 |
| 2005 | 13 | 13 | \$598,503 | 2005 | 0 | 0 | \$0 |
| 2009 | 1 | 1 | \$175,000 | 2009 | 1 | 1 | \$88,000 |
| 2010 | 1 | 1 | \$126,602 | 2010 | 0 | 0 | \$0 |

¹ <http://censtats.census.gov/cgi-bin/bldgprmt/bldgdisp.pl>

Regional Profile

| Menard County | | | | Reagan County | | | |
|-------------------|------------------|-------|-------------------|------------------|------------------|-------|-------------------|
| Year | Buildings | Units | Construction Cost | Year | Buildings | Units | Construction Cost |
| 1990 | No data reported | | | 1990 | 5 | 5 | \$171,650 |
| 1996 | No data reported | | | 1995 | 3 | 3 | \$55,000 |
| 2000 | No data reported | | | 2000 | 0 | 0 | \$0 |
| 2005 | No data reported | | | 2005 | 3 | 3 | \$75,000 |
| 2009 | No data reported | | | 2009 | 3 | 3 | \$525,000 |
| 2010 | No data reported | | | 2010 | 0 | 0 | \$0 |
| Schleicher County | | | | Sterling County | | | |
| Year | Buildings | Units | Construction Cost | Year | Buildings | Units | Construction Cost |
| 1990 | 0 | 0 | \$0 | 1990 | No data reported | | |
| 1995 | 3 | 3 | \$134,530 | 1995 | No data reported | | |
| 2000 | 0 | 0 | \$0 | 2000 | No data reported | | |
| 2005 | 0 | 0 | \$0 | 2005 | No data reported | | |
| 2009 | 0 | 0 | \$0 | 2009 | No data reported | | |
| 2010 | 0 | 0 | \$0 | 2010 | No data reported | | |
| Sutton County | | | | Tom Green County | | | |
| Year | Buildings | Units | Construction Cost | Year | Buildings | Units | Construction Cost |
| 1990 | 13 | 33 | \$753,000 | 1990 | 131 | 131 | \$5,427,059 |
| 1995 | 1 | 1 | \$65,830 | 1995 | 223 | 225 | \$18,820,596 |
| 2000 | 0 | 0 | \$0 | 2000 | 243 | 247 | \$25,994,248 |
| 2005 | 0 | 0 | \$0 | 2005 | 270 | 270 | \$38,472,930 |
| 2009 | 0 | 0 | \$0 | 2009 | 193 | 516 | \$38,385,984 |
| 2010 | 0 | 0 | \$0 | 2010 | 177 | 177 | \$24,682,463 |

RISK OVERVIEW

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Hazard Identification

This section begins the risk assessment, which also includes hazard profiles and vulnerability assessments found in Sections 5 – 14 and Appendix A. The purpose of this section is to provide background information for the hazard identification process, as well as descriptions for the natural and technological hazards identified.

Upon a review of the full range of natural hazards suggested under FEMA planning guidance, the CVCOG and participating jurisdictions identified 12 hazards that are to be addressed in the Plan Update. These hazards were identified through an extensive process utilizing input from planning team members, preliminary hazard profiling based on the review of the 2005 Plan and a review of the current State of Texas Hazard Mitigation Plan (“State Plan”). Readily available online information from reputable sources such as federal and state agencies was also evaluated to supplement information as needed. Based on this review, nine natural hazards and three technological hazards were identified as significant as shown in Table 4-1.

Atmospheric hazards are events or incidents associated with weather generated phenomenon. Atmospheric hazards identified as significant from Table 4-1 include: thunderstorm, hail, tornado, winter storm, hurricane, and extreme heat.

Hydrologic hazards are events or incidents associated with water related damage and account for over 75 percent of Federal disaster declarations in the United States. Hydrologic hazards identified as significant includes flood and drought. For the purposes of the risk assessment, the hazard wildfire is considered “other” since it is neither atmospheric nor hydrologic.

The terms construction and maintenance of dams; the use of gas and oil pipelines; and the manufacture, transportation, storage, and use of hazardous materials are considered technological hazards. Incidents are distinct from natural hazards primarily in that they originate from human activity. While the risks presented by natural hazards may be increased or decreased as a result of human activity, they are not inherently human-induced; therefore dam failure, pipeline failure, and hazardous material release are

classified as technological hazards. Pipeline failure and hazardous material incident were assessed and summarized in Appendix A.

Table 4-1. Hazard Descriptions

| HAZARD | DESCRIPTION |
|---------------------|---|
| ATMOSPHERIC | |
| Extreme Heat | Extreme heat is the condition whereby temperatures hover ten degrees or more above the average high temperature in a region for an extended period. |
| Hailstorm | Any storm that produces hailstones that fall to the ground; usually used when the amount or size of the hail is considered significant. |
| Hurricane | According to the National Oceanic and Atmospheric Administration (NOAA), a hurricane is an intense tropical weather system of strong thunderstorms with well-defined surface circulation and maximum sustained winds of 74 mph or higher. |
| Thunderstorm | A thunderstorm occurs when an observer hears thunder. Radar observers use the intensity of the radar echo to distinguish between rain showers and thunderstorms. Lightning detection networks routinely track cloud-to-ground flashes, and therefore thunderstorms. |
| Tornado | A tornado is a violently rotating column of air that has contact with the ground and is often visible as a funnel cloud. Its vortex rotates cyclonically with wind speeds ranging from as low as 40 mph to as high as 300 mph. The destruction caused by tornadoes ranges from light to catastrophic depending on the intensity, size and duration of the storm. |
| Winter Storm | Severe winter storms may include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. Blizzards, the most dangerous of all winter storms, combine low temperatures, heavy snowfall, and winds of at least 35 miles per hour, reducing visibility to only a few yards. Ice storms occur when moisture falls and freezes immediately upon impact on trees, power lines, communication towers, structures, roads and other hard surfaces. Winter storms and ice storms can down trees, cause widespread power outages, damage property, and cause fatalities and injuries to human life. |
| HYDROLOGIC | |

Risk Overview

| HAZARD | DESCRIPTION |
|-----------------------------------|---|
| Drought | A prolonged period of less than normal precipitation such that the lack of water causes a serious hydrologic imbalance. Common effects of drought include crop failure, water supply shortages, and fish and wildlife mortality. |
| Flood | The accumulation of water within a body of water, which results in the overflow of excess water onto adjacent lands, usually floodplains. The floodplain is the land adjoining the channel of a river, stream, ocean, lake or other watercourse or water body that is susceptible to flooding. Most floods fall into the following three categories: riverine flooding, coastal flooding, or shallow flooding. |
| OTHER | |
| Wildfire | An uncontrolled fire burning in an area of vegetative fuels such as grasslands, brush, or woodlands. Heavier fuels with high continuity, steep slopes, high temperatures, low humidity, low rainfall, and high winds all work to increase the risk for people and property located within wildfire hazard areas or along the urban/wildland interface. Wildfires are part of the natural management of forest ecosystems, but most are caused by human factors. |
| TECHNOLOGICAL | |
| Dam Failure | Dam failure is the collapse, breach, or other failure of a dam structure resulting in downstream flooding. In the event of a dam failure, the energy of the water stored behind even a small dam is capable of causing loss of life and severe property damage if development exists downstream of the dam. |
| Hazardous Material Release | Hazardous materials are substances which if released or misused can cause death, serious injury, long-lasting health effects, and damage to structure and other properties, as well as to the environment. Many products containing hazardous chemicals are used and stored in homes routinely. |
| Pipeline Failure | Fuel pipeline breach or pipeline failure addresses the rare, but serious hazard of an oil or natural gas pipeline. Pipeline failure is a rare occurrence, but has the potential to cause extensive property damage and loss of life. |

Overview of Hazard Analysis

This risk assessment was conducted using two distinct methodologies: HAZUS-MH (FEMA’s loss estimation software) and a statistical approach. Each approach provides estimates of potential impact by using a common, systematic framework for evaluation.

The HAZUS-MH risk assessment methodology is parametric, in that distinct hazard and inventory parameters (e.g., wind speed and building types) were modeled using the HAZUS-MH software to determine the impact (e.g., damages and losses) on the built environment. The HAZUS-MH software was used to estimate losses from the flood hazard.

HAZUS-MH is FEMA’s standardized loss estimation software program built upon an integrated geographic information system (GIS) platform. This risk assessment applies HAZUS-MH produce regional profiles and estimate losses for the flood hazard only.

Records retrieved from National Climatic Data Center (NCDC) are reported for the named participating cities. Remaining NCDC records occurring in a named area in a county were considered in the total for county events and maximum recorded magnitude of event.

The risk assessment includes four general parameters that are described for each hazard; frequency of return, approximate annualized losses, a description of general vulnerability, and a statement of the hazard’s impact.

Frequency of return was calculated by dividing the number of events in the recorded time period for each hazard by the overall time period that the resource database was recording events.

Each of the hazard profiles includes a description of a general vulnerability assessment. Vulnerability is the total of assets that are subject to damages from a hazard (based on historic recorded damages). Assets in the region were inventoried and defined in hazard zones where appropriate. The total amount of damages (including property and crop damages) for each hazard is divided by the total number of assets (building value totals) in that community in order to find out the percentage of damage that each hazard can cause to the community.

Once loss estimates and vulnerability were known, an impact statement was applied to relate the potential impact of the hazard on the assets within the area of impact.

Building Values

Table 4-2 presents the asset distribution for the CVCOG Region. Data was gathered from the 2010 U.S. Census Bureau for population and housing units. Housing units are defined as structures in which people “live” (not work, or otherwise), therefore commercial and

industrial buildings were not counted for this assessment. Building values were collected from HAZUS and include valuations from all building occupancies, which includes commercial, industrial, residential, etc. Building values are reported by millions or billions of dollars as indicated by an “M” or “B” in Table 4-2.

Table 4-2. Asset Distribution¹

| JURISDICTION | 2010 POPULATION | | 2010 HOUSING UNITS | | BUILDING VALUES | |
|--------------------------|-----------------|--------|--------------------|--------|------------------|-----------|
| Coke County | 3,320 | | 2,667 | | \$291.4 M | |
| Bronte | | 999 | | 473 | | \$54.9 M |
| Robert Lee | | 1,049 | | 636 | | \$70.8 M |
| Concho County | 4,087 | | 1,637 | | \$187.2 M | |
| Eden | | 2,766 | | 581 | | \$92.5 M |
| Paint Rock | | 273 | | 128 | | \$11.3 M |
| Crockett County | 3,719 | | 1,866 | | \$263.7 M | |
| (No Incorporated Cities) | | | | | | |
| Irion County | 1,599 | | 856 | | \$112.3 M | |
| Mertzon | | 781 | | 358 | | \$38.6 M |
| Kimble County | 4,607 | | 3,371 | | \$345.1 M | |
| Junction | | 2,574 | | 1,270 | | \$152.9 M |
| McCulloch County | 8,283 | | 4,302 | | \$459.6 M | |
| Melvin | | 178 | | 113 | | \$8.9 M |
| Menard County | 2,242 | | 1,702 | | \$148.4 M | |
| Menard | | 1,471 | | 828 | | \$69.4 M |
| Reagan County | 3,367 | | 1,372 | | \$178.8 M | |
| Big Lake | | 2,936 | | 1,089 | | N/A |
| Schleicher County | 3,461 | | 1,489 | | \$163.7 M | |
| Eldorado | | 1,951 | | 838 | | \$95.8 M |
| Sterling County | 1,143 | | 615 | | \$89.1 M | |
| Sterling City | | 888 | | 419 | | \$65.8 M |
| Sutton County | 4,128 | | 2,031 | | \$259.0 M | |
| Sonora | | 3,027 | | 1,323 | | \$157.0 M |
| Tom Green County | 110,224 | | 46,571 | | \$6.423 B | |
| San Angelo | | 93,200 | | 39,548 | | \$5.6 B |

¹ Source: U.S. Census Bureau (2010), [Housing Units]: 2010 U.S. Census Bureau, [Building Values]: using RS Means construction valuations from 2006 to estimate the Building Values by Census geography.

| JURISDICTION | 2010 POPULATION | 2010 HOUSING UNITS | BUILDING VALUES |
|---------------|-----------------|--------------------|-----------------|
| TOTALS | 150,180 | 68,479 | \$8.9 B |

Potential Dollar Losses

Using the statistical risk assessment methodology, loss estimates were obtained by hazard at the city and county level. Methodology of estimations was described and is presented in summary in Table 4-3 below.

Table 4-3. Summary of Annualized Loss (AL) Estimates

| COUNTY | DROUGHT ² | FLOOD | HAIL | HURRICANE | THUNDER-STORM | TORNADO | WINTER STORM |
|------------|----------------------|------------|------------|-------------|---------------|-------------|--------------|
| Coke | \$833,266 | \$52,500 | Negligible | \$21,838 | \$21,838 | \$18,881 | \$44,082 |
| Concho | \$833,266 | Negligible | Negligible | Negligible | Negligible | \$2,374 | \$26,554 |
| Crockett | \$851,786 | \$57,722 | Negligible | Negligible | Negligible | \$15,212 | \$26,260 |
| Irion | \$833,266 | \$35,167 | Negligible | \$253,255 | \$253,255 | Negligible | \$23,046 |
| Kimble | \$852,320 | \$747,778 | Negligible | \$5,560 | \$5,560 | \$16,205 | \$26,968 |
| McCulloch | \$833,266 | \$28,333 | Negligible | \$15,597 | \$15,597 | \$127,524 | \$27,478 |
| Menard | \$1,379,167 | \$36,667 | Negligible | \$9,948 | \$9,948 | Negligible | \$26,971 |
| Reagan | \$1,771,461 | \$16,667 | Negligible | Negligible | Negligible | \$30,144 | \$22,979 |
| Schleicher | \$851,786 | \$30,556 | Negligible | \$17,401 | \$17,401 | \$131,841 | \$26,662 |
| Sterling | \$833,266 | \$51,667 | Negligible | Negligible | Negligible | Negligible | \$23,046 |
| Sutton | \$851,786 | \$448,722 | Negligible | Negligible | Negligible | Negligible | \$27,881 |
| Tom Green | \$833,266 | \$101,611 | \$36,624 | \$1,600,319 | \$1,600,319 | \$3,204,683 | \$26,573 |

² For drought, the numbers presented are based upon the annualized expected agriculture product market value exposure. Exposure was estimated at the county level due to data limitations.

Note: Negligible is less than \$5,000

FLOOD

HAZARD PROFILE 1
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Hazard Profile

Floods generally result from excessive precipitation and the severity of a flood event is typically determined by a combination of several major factors, including: stream and river basin topography and physiography, precipitation and weather patterns, recent soil moisture conditions, and the degree of vegetative clearing and impervious surface. Generally floods are long-term events that may last for several days. The primary types of general flooding are inland and coastal flooding. Inland flooding is profiled in this section since coastal flooding is not applicable to the study area.

Inland or riverine flooding is a function of excessive precipitation levels and water runoff volumes within the watershed of a stream or river. It is natural and inevitable as it is the overbank flooding of rivers and streams, typically resulting from large-scale weather systems that generate prolonged rainfall over a wide geographic area. Some river floods occur seasonally when winter or spring rainfalls fill river basins with too much water, too quickly. Torrential rains from decaying hurricanes or tropical systems can also produce river flooding.

Location

Location of flood zones in the CVCOG Region is illustrated in Figures 5-1 to 5-18. No DFIRM or Q3 digital flood maps were available for any of the counties in the CVCOG. However, other digital flood map sources were available for four counties in entirety and partially available for four counties and the cities within those four counties. The source for the flood maps was First American Flood Data Service. All flood zones mapped are the 100 year event probabilities or the base flood.

Flood

No flood maps have been developed or are available for Coke, Concho, Irion, McCulloch, Menard, Schleicher Sterling, and Reagan Counties, and the only incorporated jurisdiction within Reagan County, the City of Big Lake. Communities will continue to seek additional information on flood-prone areas for which no detailed flood maps are available, in order to better inform residents of risk from flooding, promote flood awareness and availability of flood insurance, and incorporate findings into the Plan Update.

Counties and communities cited above for which FEMA has not developed flood maps and made no flood hazard evaluation is therefore designated as Zone D, undetermined, or Zone X (unshaded), as there is no Special Flood Hazard Area (SFHA). A community may join the NFIP without FEMA published flood maps, and flood insurance is available. Rates are commensurate with the uncertainty of the flood risk and lenders should be aware that new development in such areas may increase the possibility of property damage from flooding. However, due to the limited amount of bodies of water in the area and low vulnerability, the risk of exposure for new development is negligible. If a lender extends a loan in an unmapped participating community and has reason to believe there is a possibility of flood loss to the secured building, then safety and soundness dictate that flood insurance coverage should be in place.

There are no major streams or bodies of water that threaten the City of Big Lake. A satellite image of the city has been included via Google Earth to show that there are no bodies of water within the boundary of the city (See Figure 5-12). Despite what its name may indicate, Big Lake actually derives its title from a dry lake, which is a transitory lakebed, consisting of sediment or alkali salts. Water is only held temporarily, and does not reach great elevations. Although flooding has occurred in Reagan County and the City of Big Lake, there have been no recorded significant or peak events or any recorded losses as discussed in this section.

Communities participating in the National Flood Insurance Program (NFIP), per the Hazard Mitigation Assistance (HMA) guidance, will not be penalized or ineligible for HMA funding assistance due to the fact that they have not been mapped.

Figure 5-1. Estimated Flood Zones in the CVCOG Region

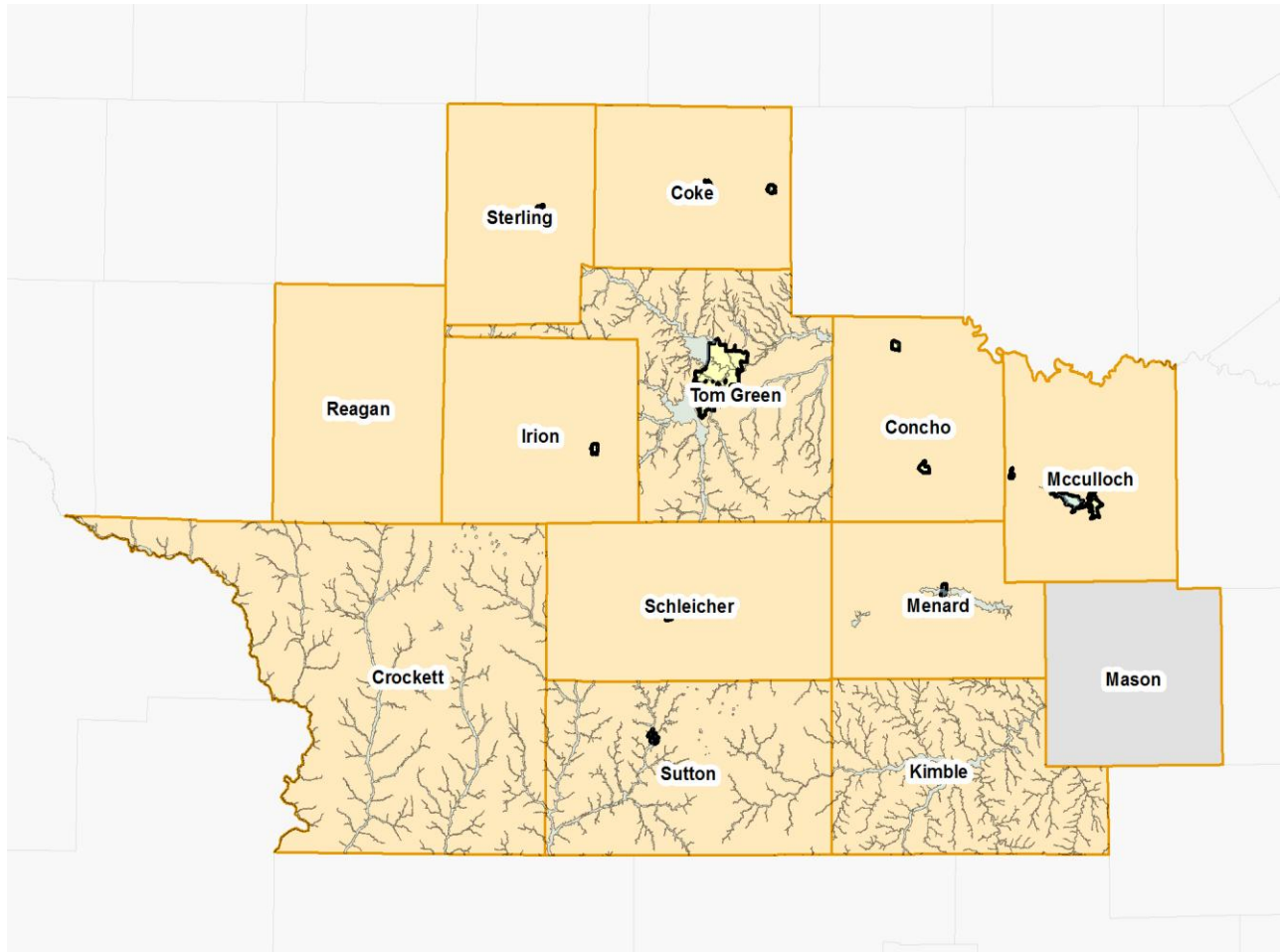


Figure 5-2. Estimated Flood Zones in the Town of Bronte (Coke County)

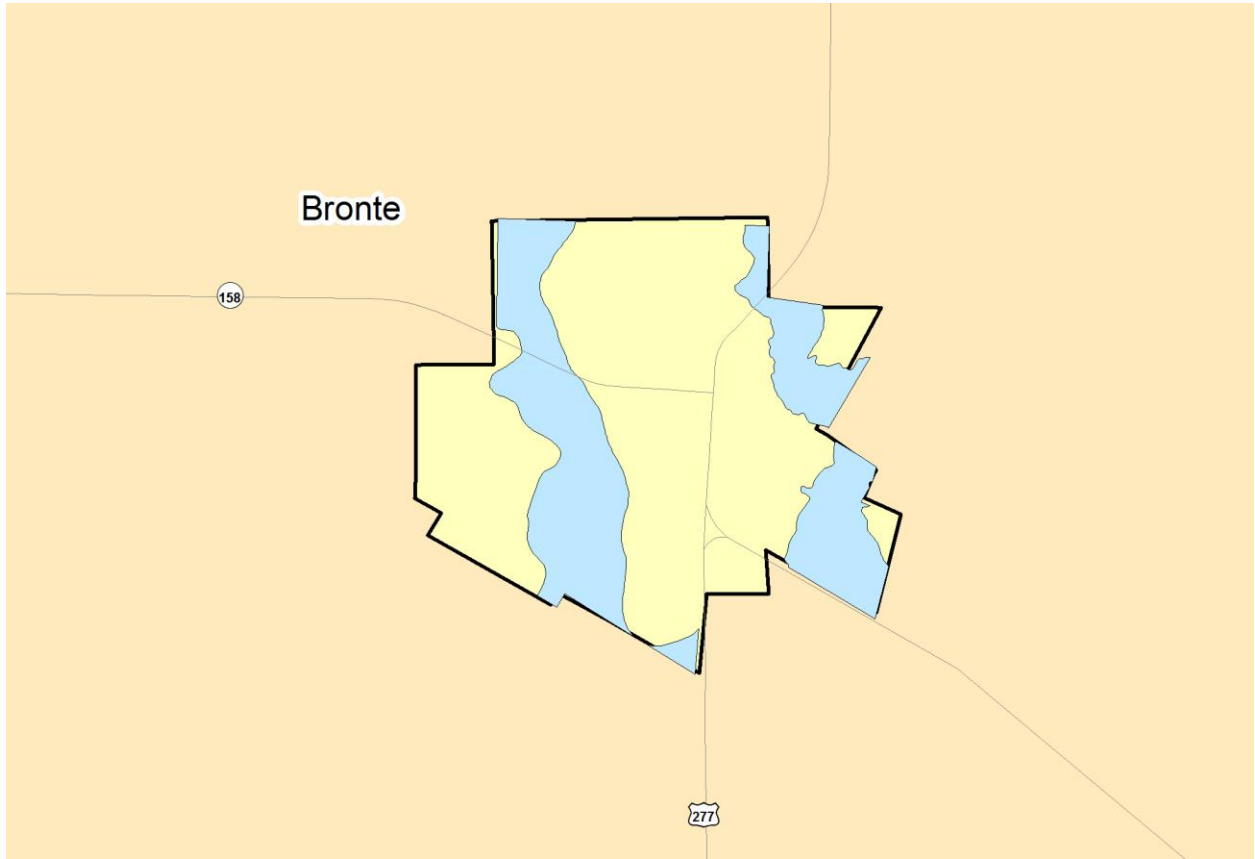


Figure 5-3. Estimated Flood Zones in the City of Robert Lee (Coke County)

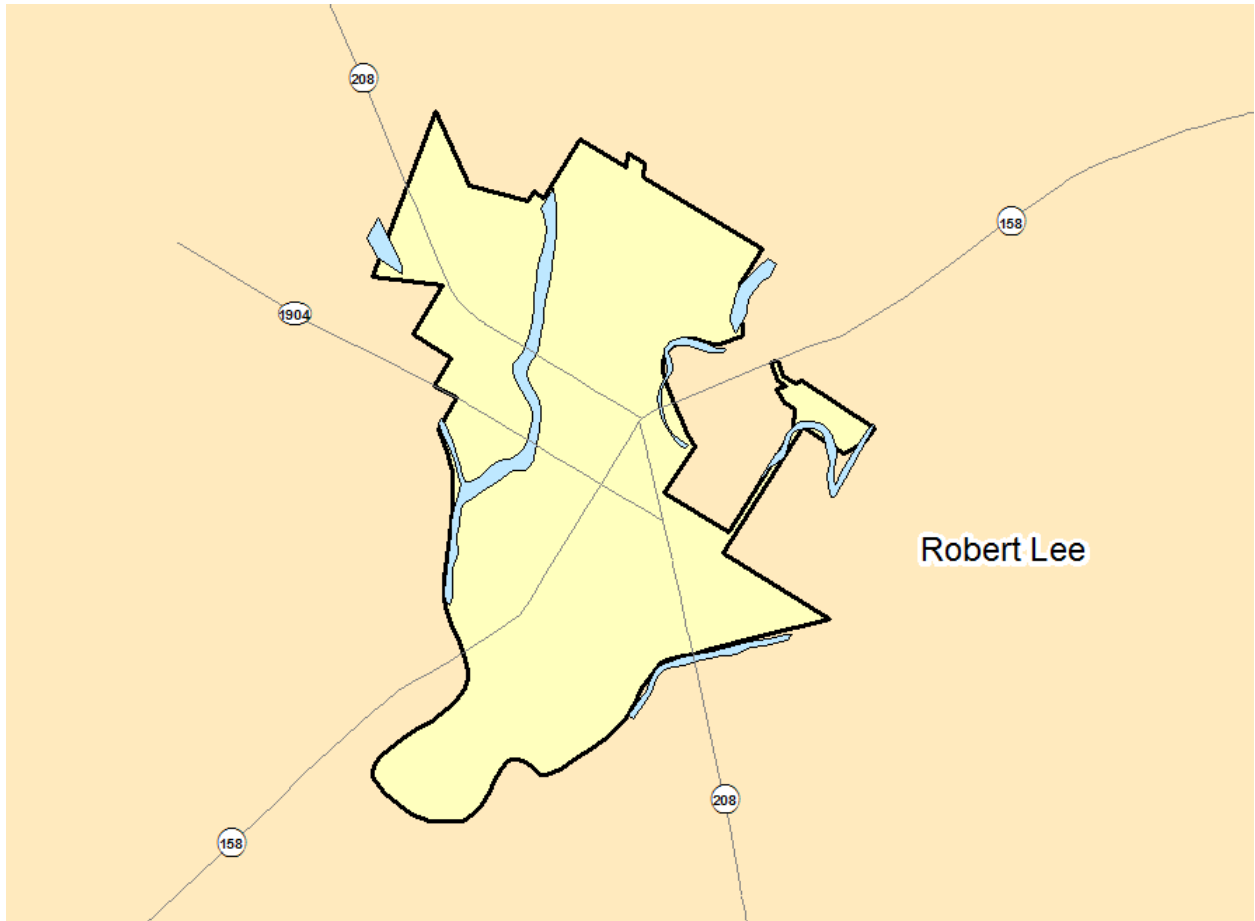


Figure 5-4. Estimated Flood Zones in the City of Eden (Concho County)

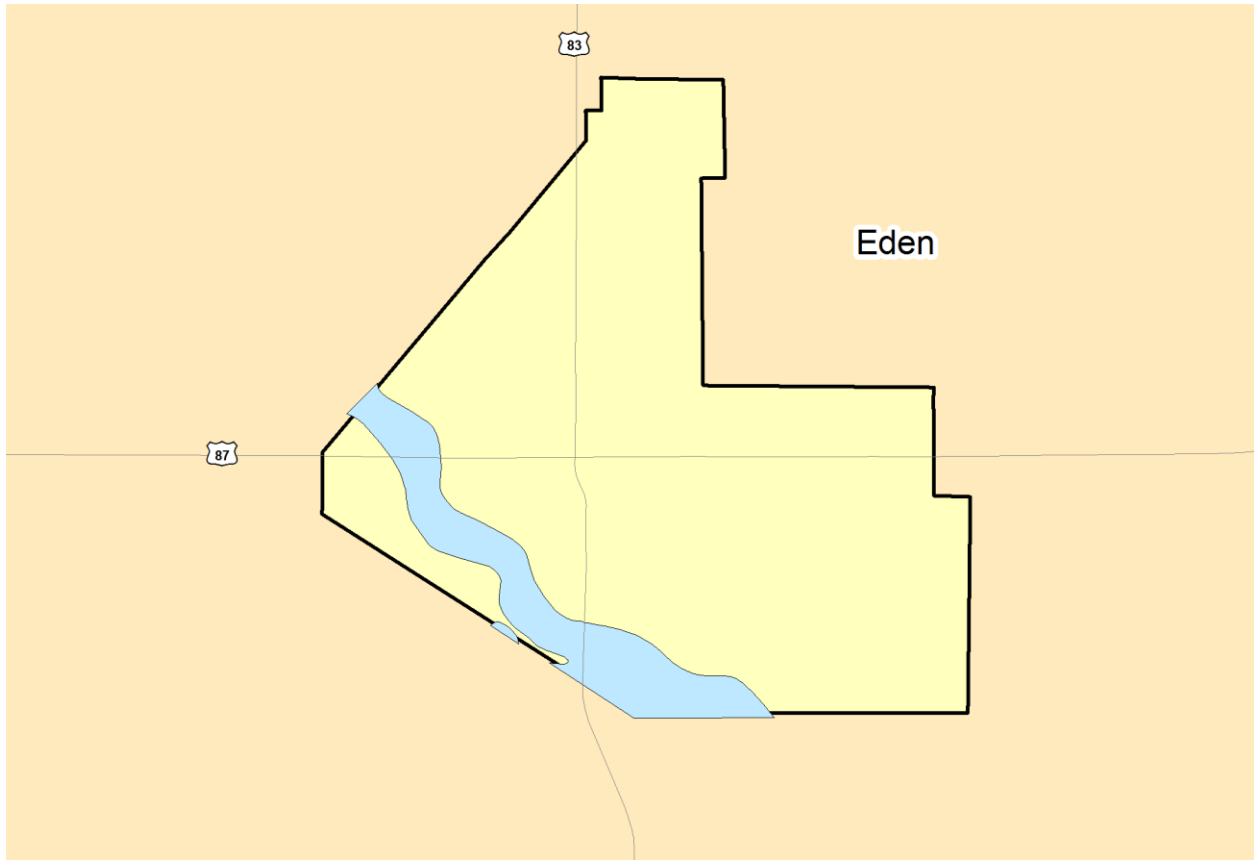


Figure 5-5. Estimated Flood Zones in the Town of Paint Rock (Concho County)

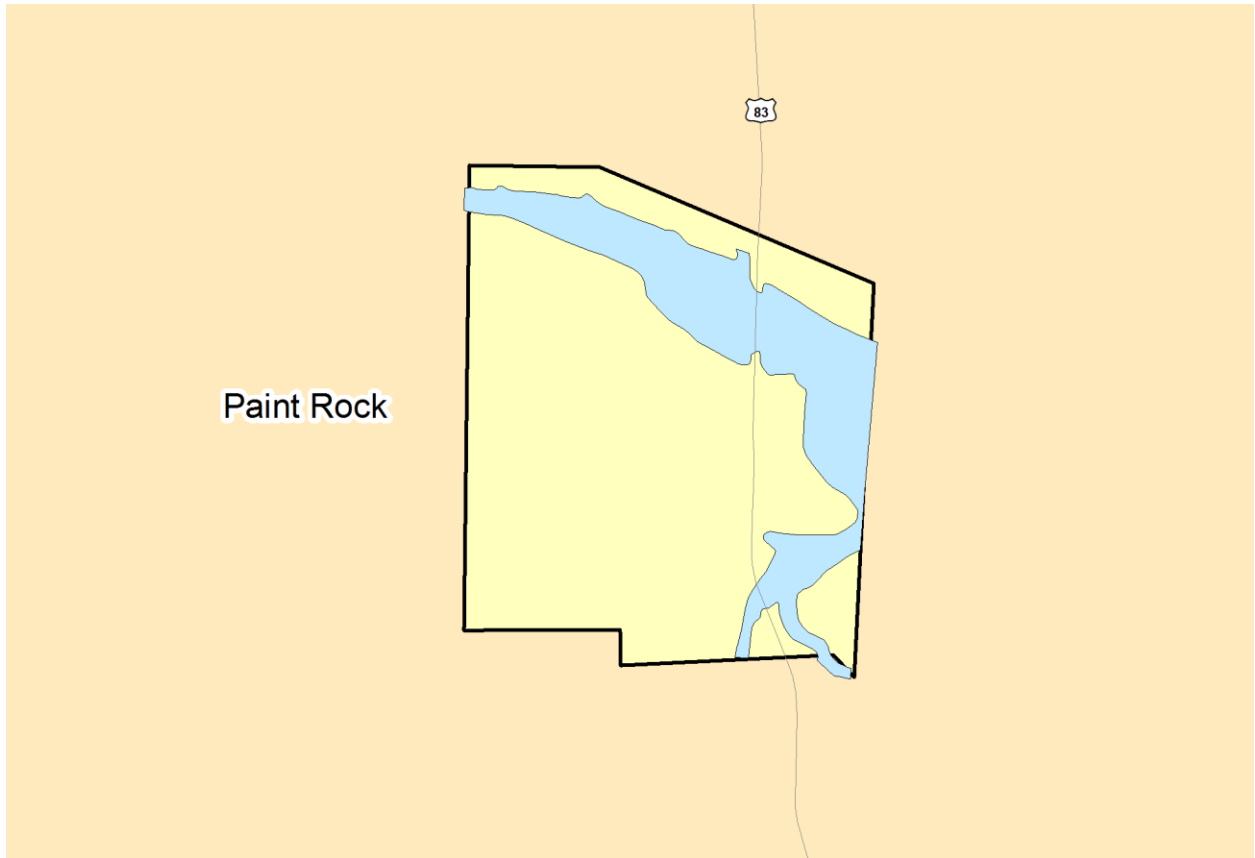


Figure 5-6. Estimated Flood Zones in Crockett County



Figure 5-7. Estimated Flood Zones in the City of Mertzon (Irion County)

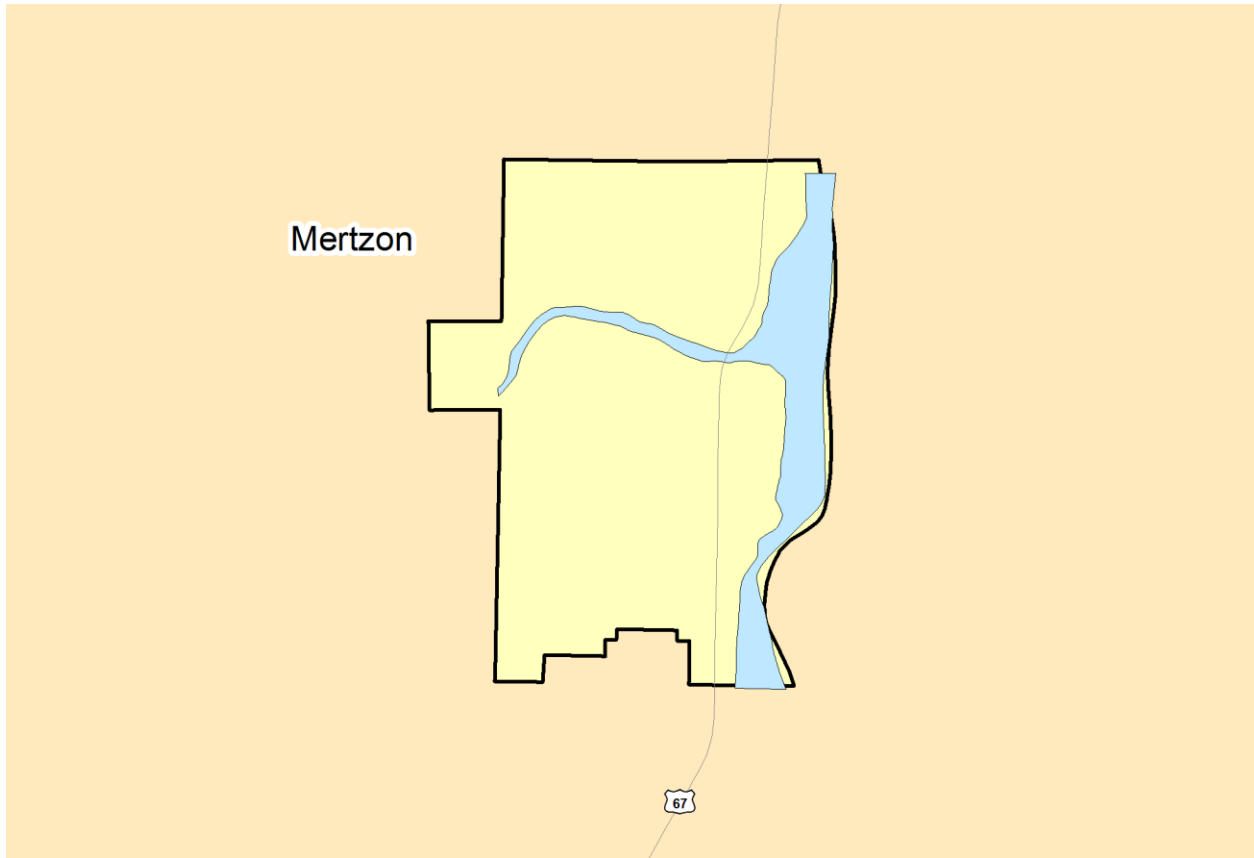


Figure 5-8. Estimated Flood Zones in Kimble County

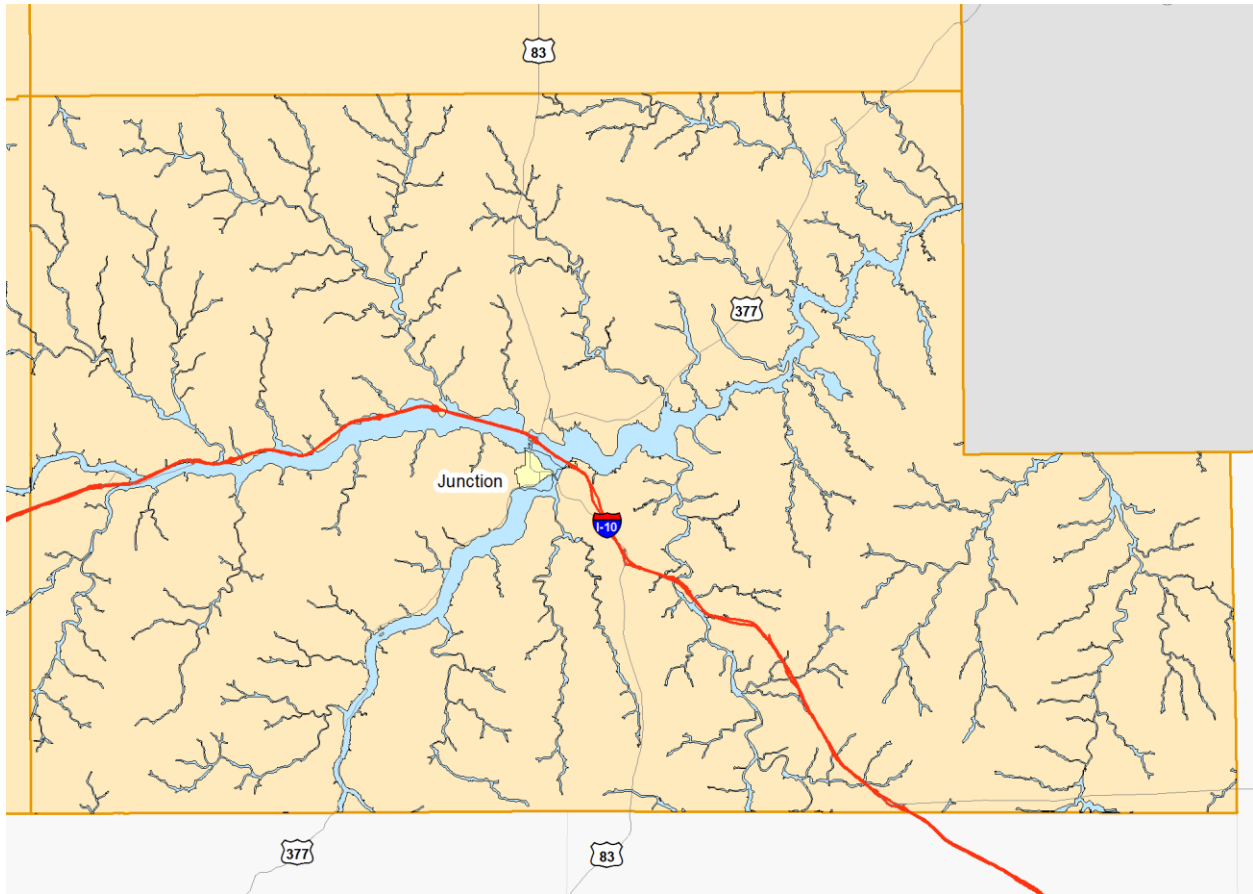


Figure 5-9. Estimated Flood Zones in the City of Junction (Kimble County)

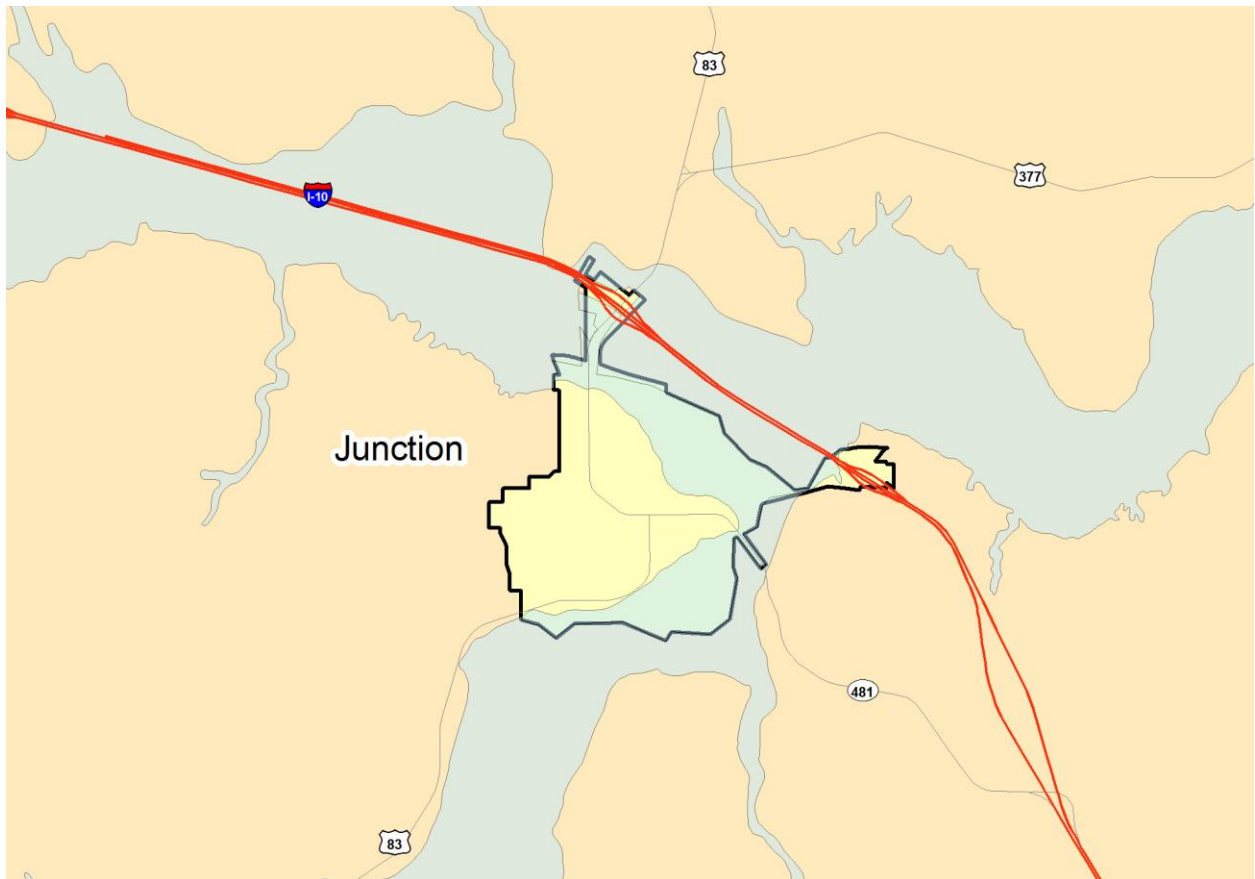


Figure 5-10. Estimated Flood Zones in the Town of Melvin (McCulloch County)

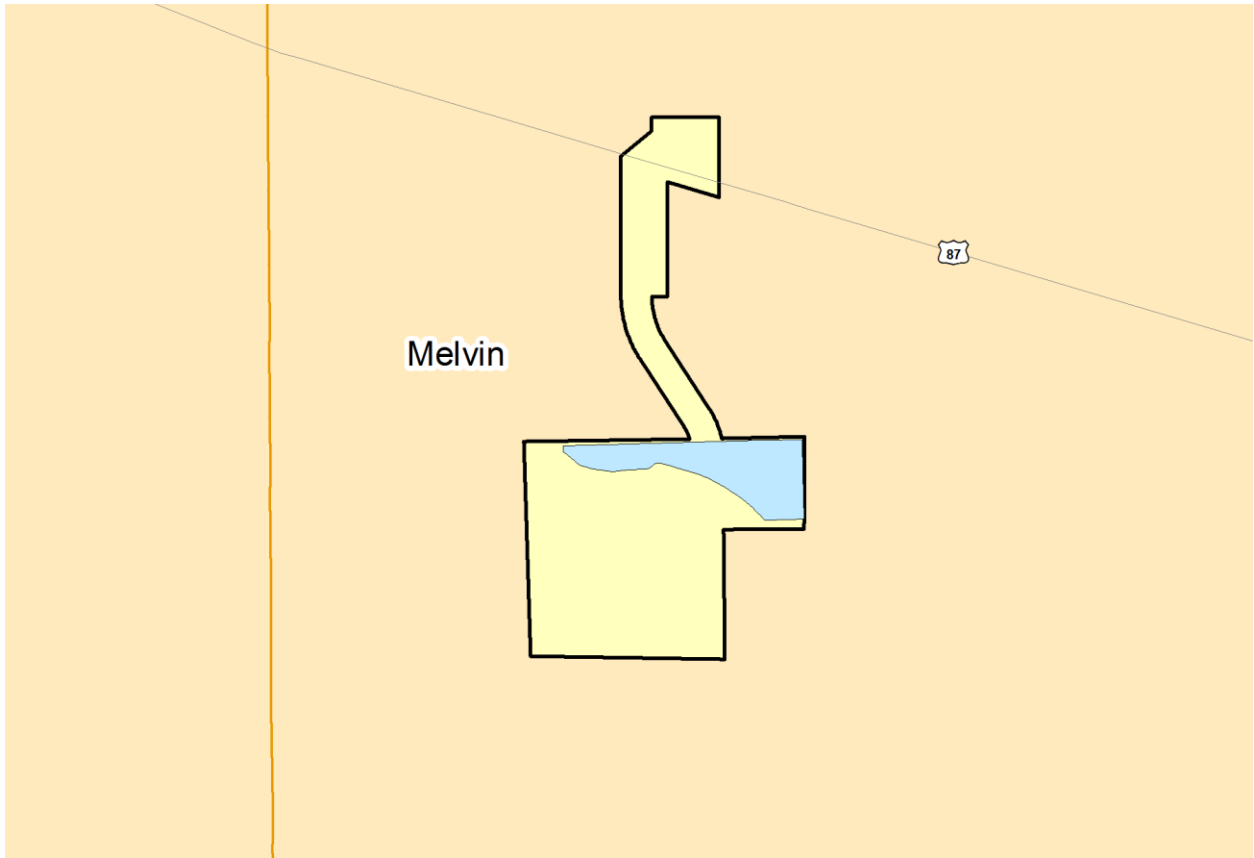


Figure 5-11. Estimated Flood Zones in the City of Menard (Menard County)

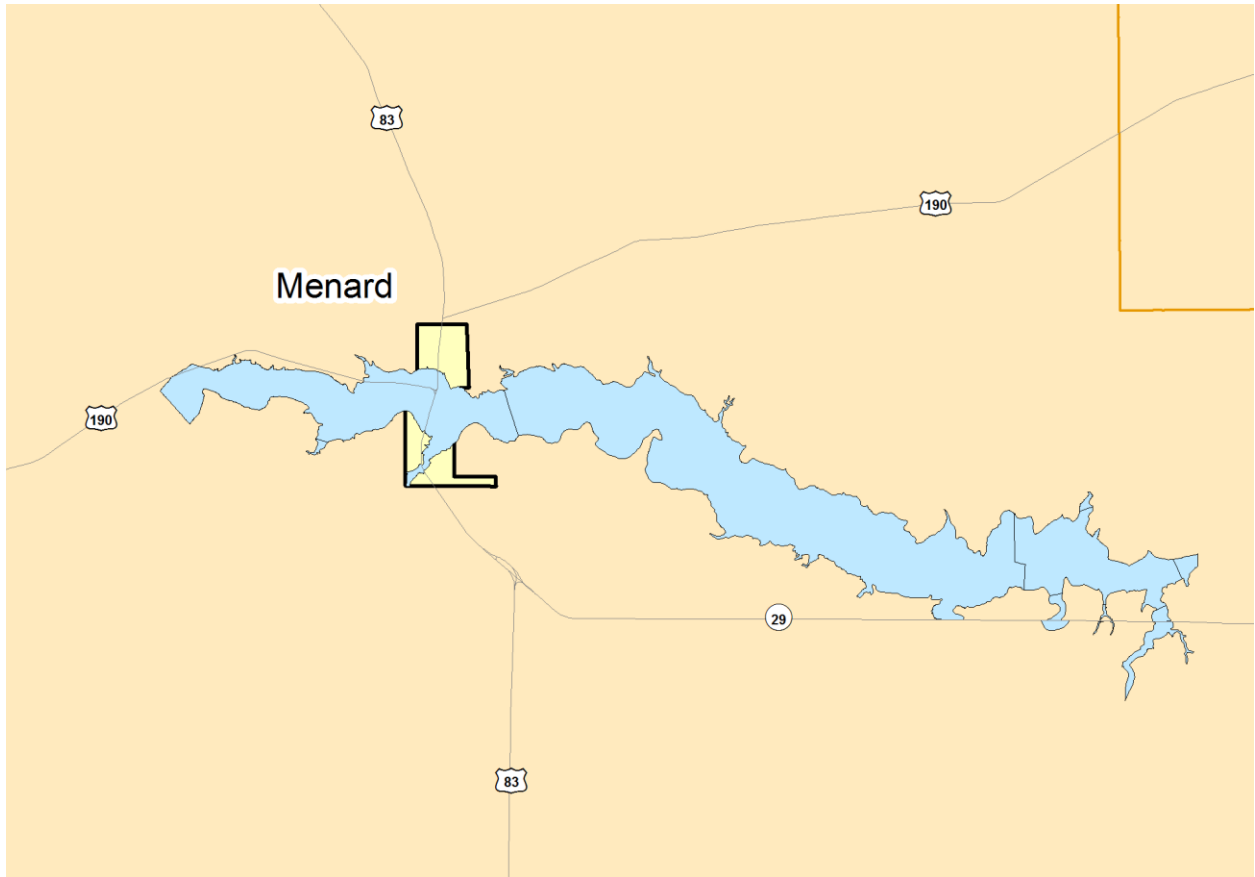


Figure 5-12. Satellite Image of the City of Big Lake (Reagan County)

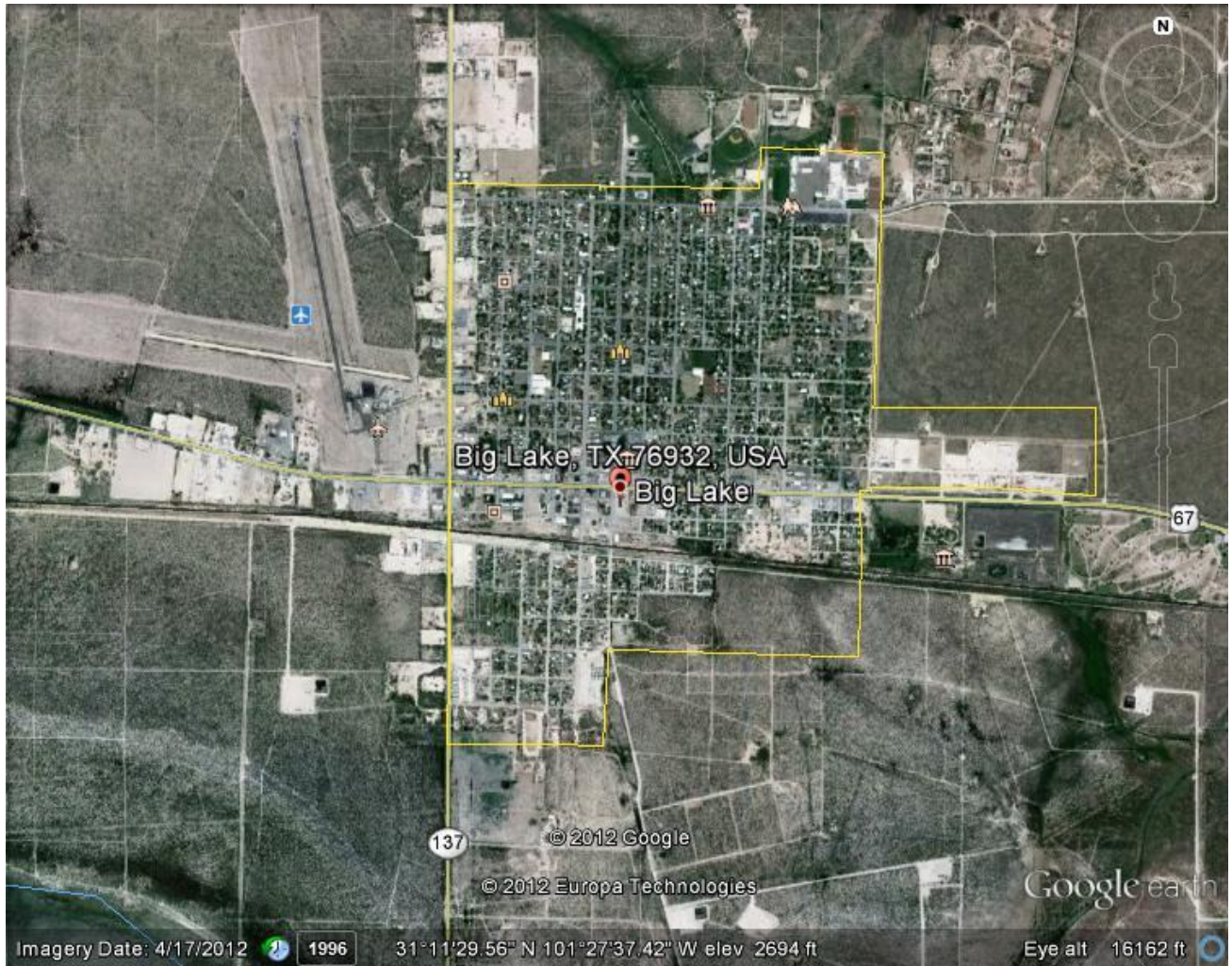


Figure 5-13. Estimated Flood Zones in the City of Eldorado (Schleicher County)

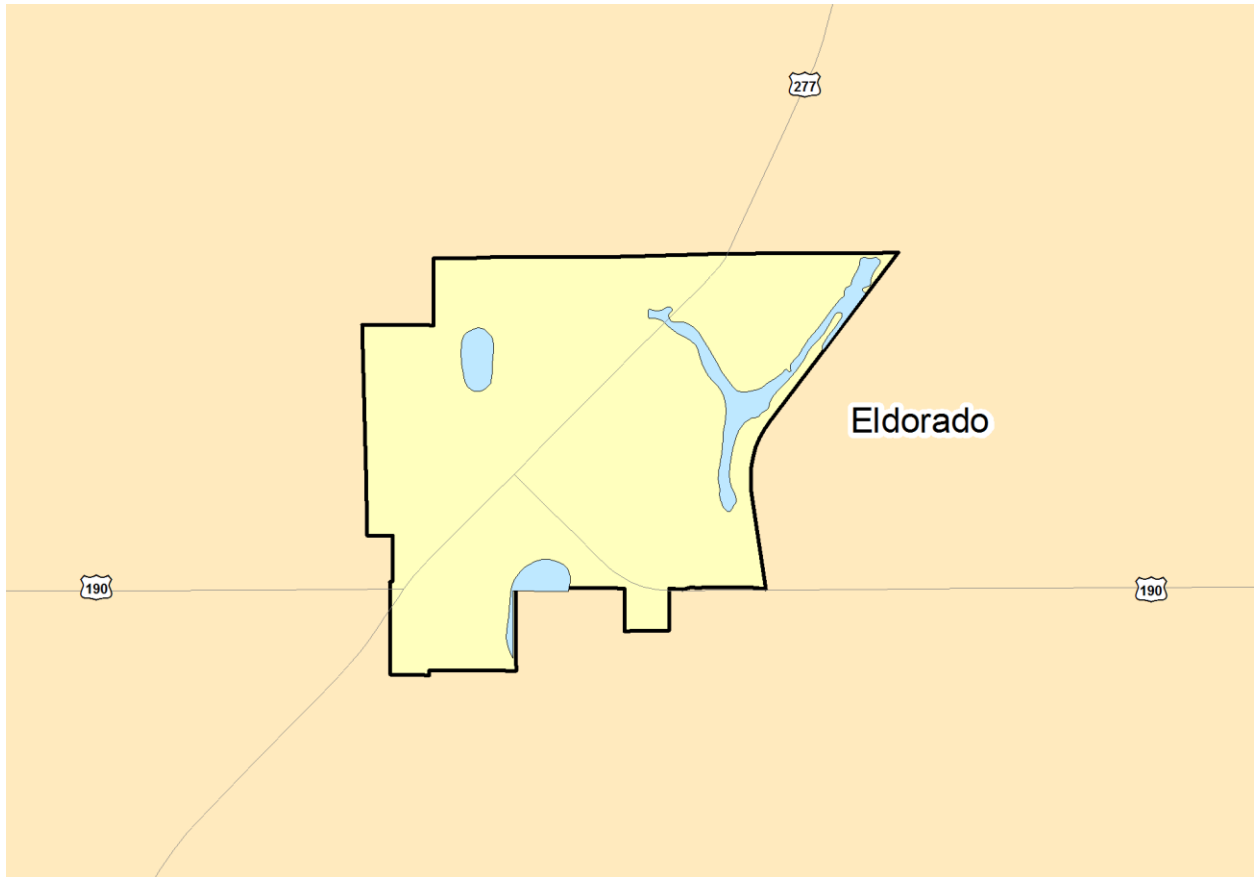


Figure 5-14. Estimated Flood Zones in the City of Sterling City (Sterling County)

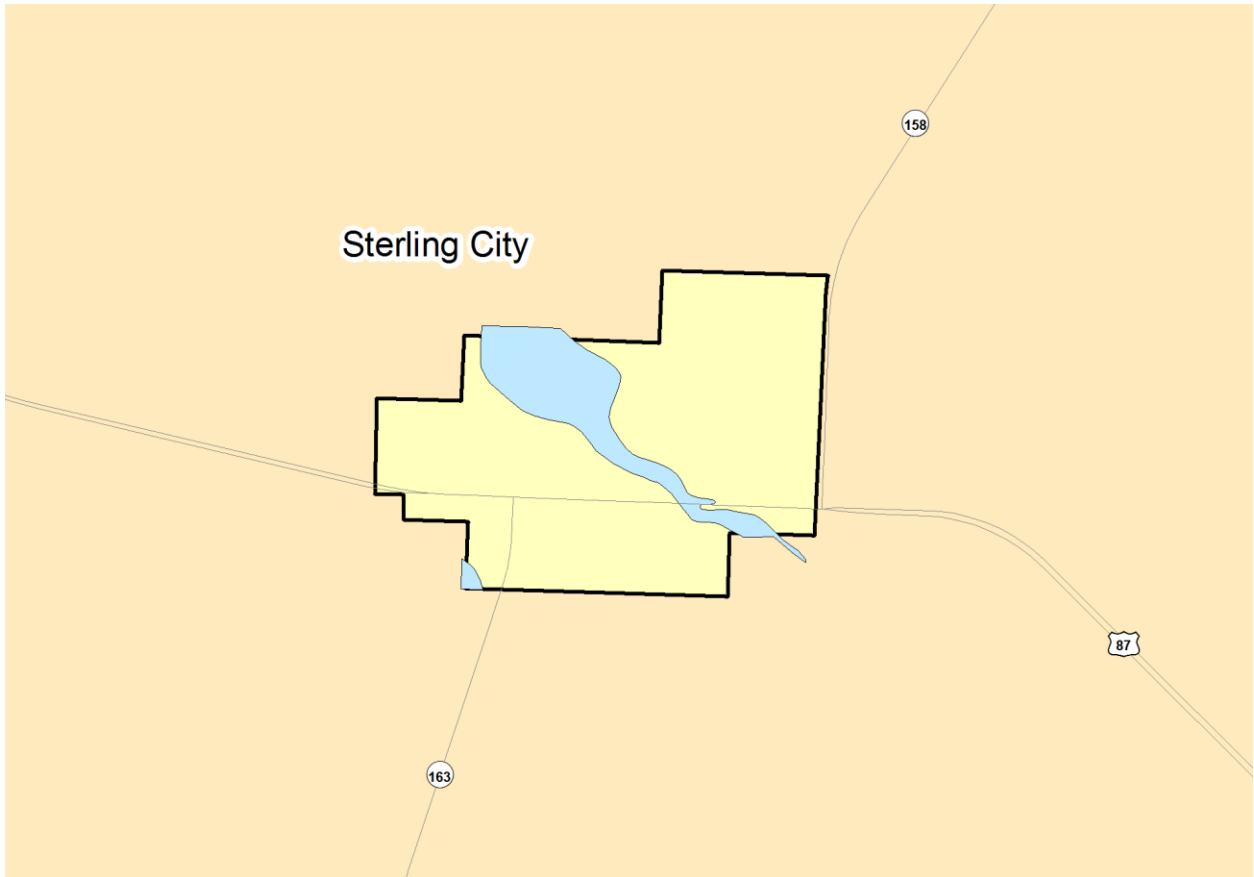


Figure 5-15. Estimated Flood Zones in Sutton County

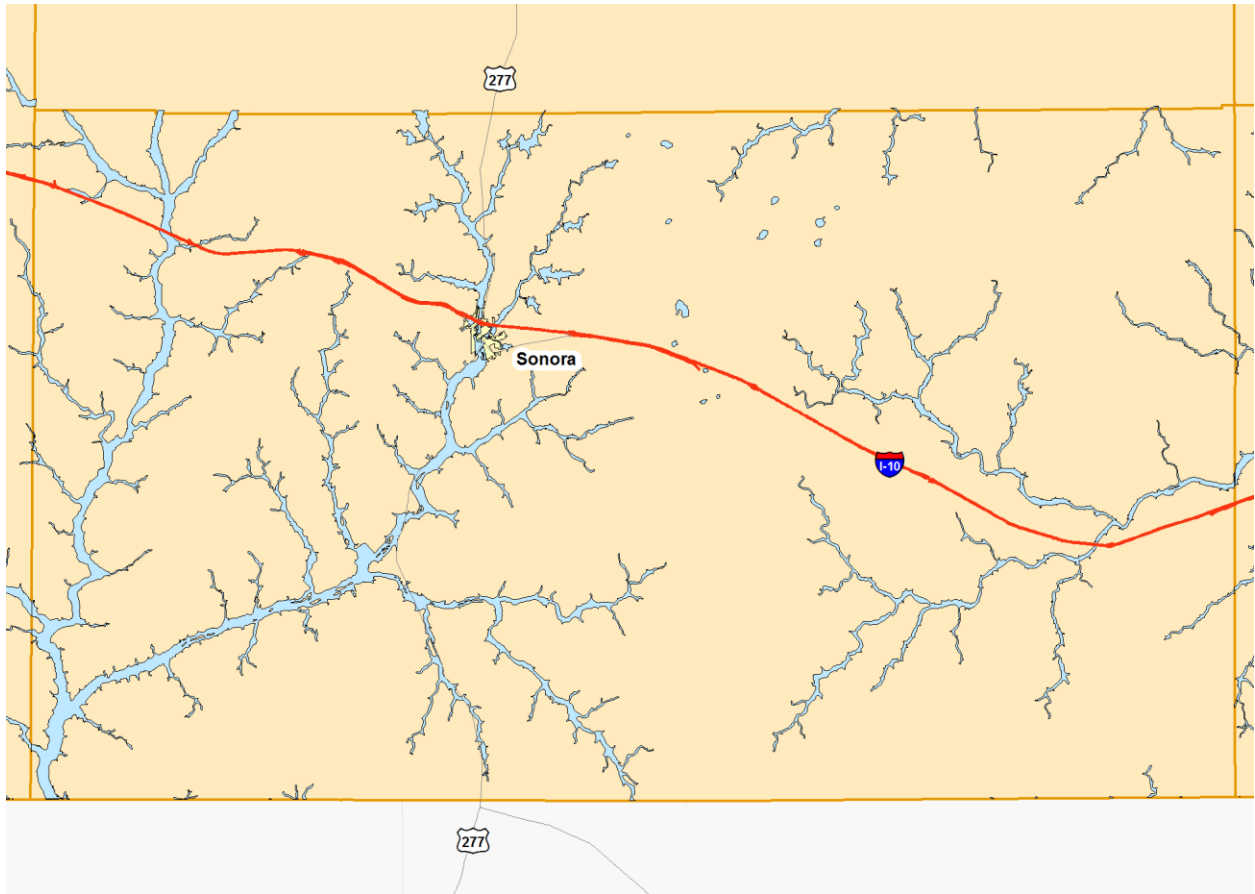


Figure 5-16. Estimated Flood Zones in the City of Sonora (Sutton County)

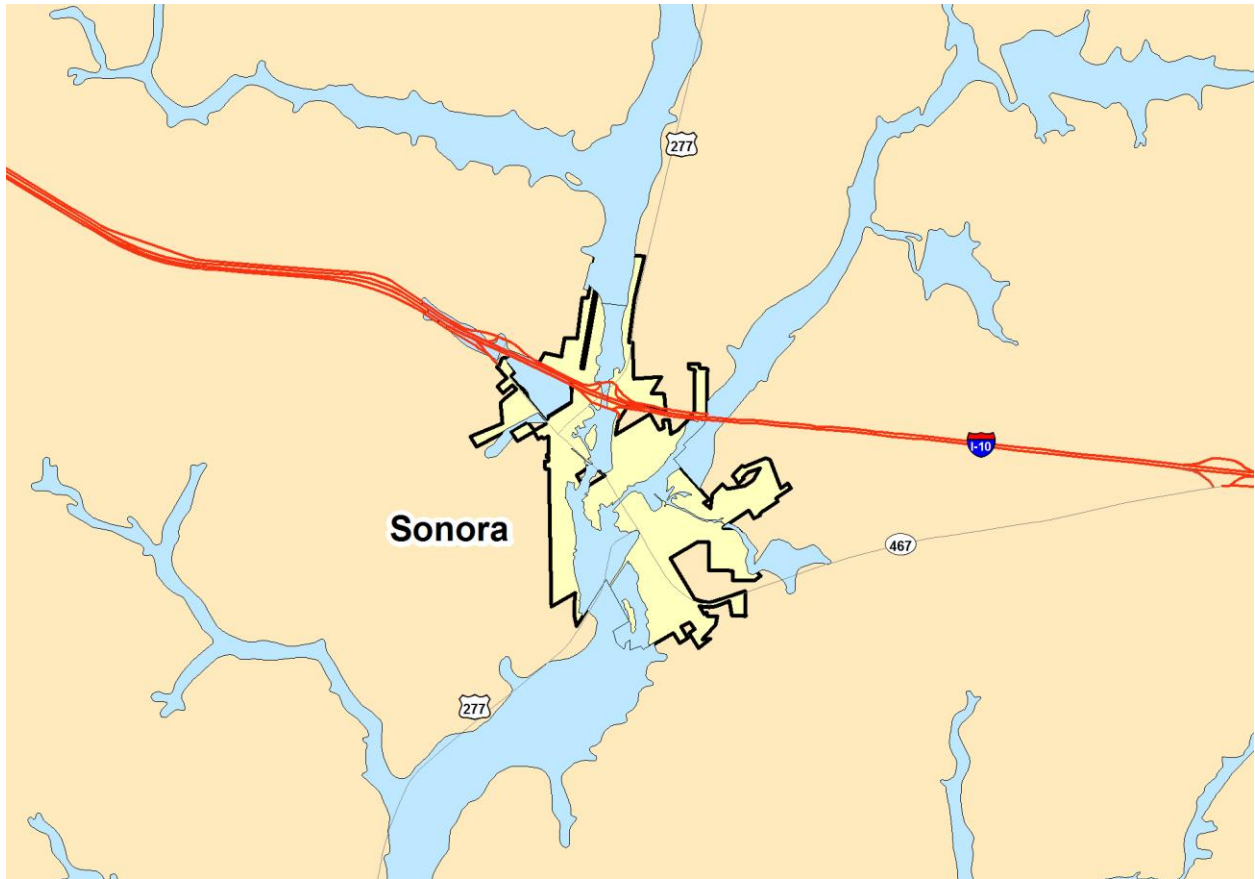


Figure 5-17. Estimated Flood Zones in Tom Green County

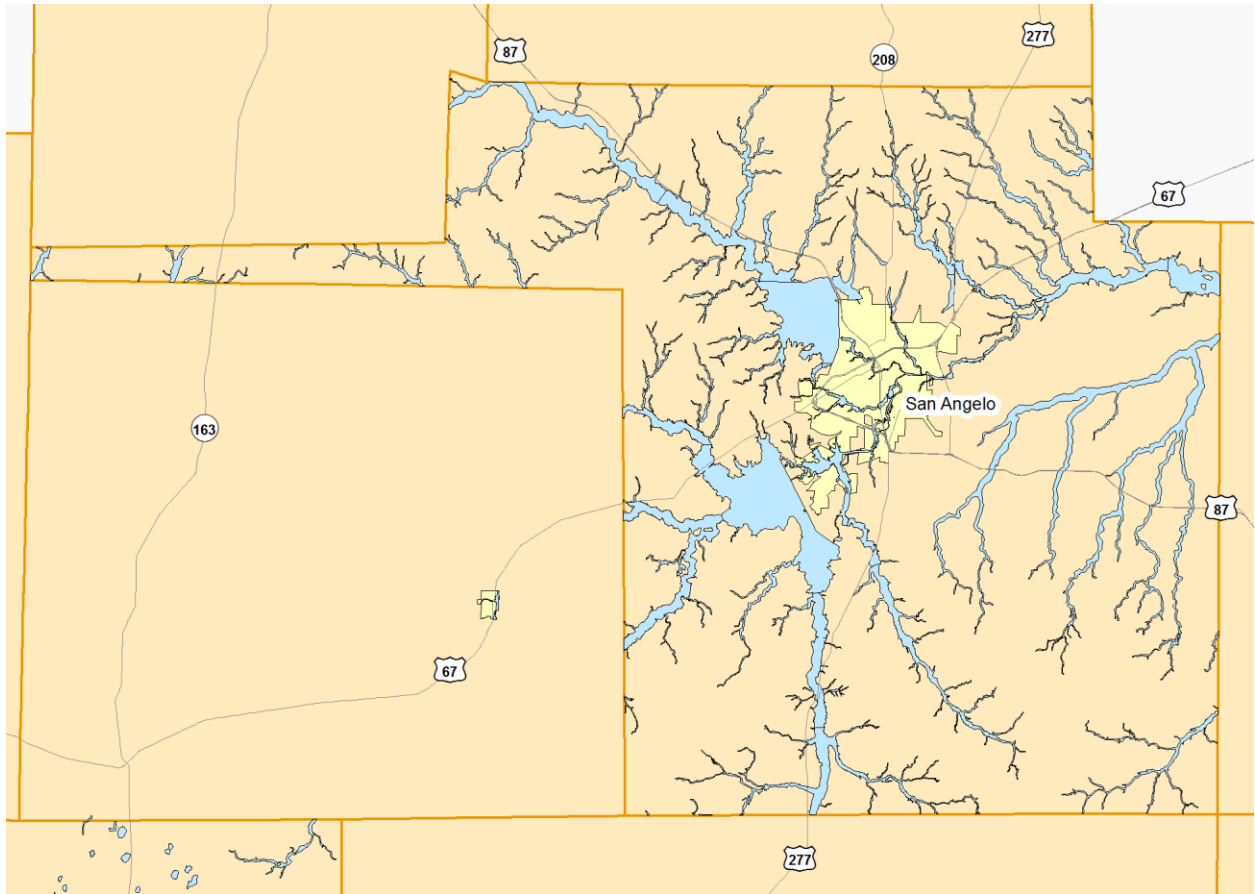


Figure 5-18. Estimated Flood Zones in the City of San Angelo (Tom Green County)



Extent

The severity of a flood event is typically determined by a combination of several factors including: stream and river basin topography and physiography; precipitation and weather patterns; recent soil moisture conditions; and degree of vegetative clearing and impervious surface. Generally floods are long-term events that may last for several days.

Determining the intensity and magnitude of a flood event is dependent upon the flood zone and location of the flood hazard area in addition to depths of flood waters. Extent of flood damages can be expected to be more damaging in the areas that will convey a base flood. FEMA categorizes areas on the terrain according to how the area will convey flood water. Flood zones are the categories that are mapped on Flood Insurance Rate Maps. Table 5-1 provides a description of FEMA flood zones and the flood impact in terms of severity or potential harm, though Flood Zone A is the only hazard area mapped in the region. Figures 5-1 through 5-17 should be read in conjunction with the extent for flooding in Tables 5-1, 5-2, and 5-3 to determine the intensity of a potential flooding event.

Table 5-1. Flood Zones

| INTENSITY | ZONE | DESCRIPTION |
|------------------------|-------------------|---|
| HIGH | ZONE A | Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas, no depths or base flood elevations are shown within these zones. |
| | ZONE A1-30 | These are known as numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format). |
| | ZONE AE | The base floodplain where base flood elevations are provided. AE Zones are now used on the new format FIRMs instead of A1-A30 Zones. |
| | ZONE AO | River or stream flood hazard areas and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones. |
| | ZONE AH | Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones. |
| | ZONE A99 | Areas with a 1% annual chance of flooding that will be protected by a federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones. |
| | ZONE AR | Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam). Mandatory flood insurance purchase requirements will apply, but rates will not exceed the rates for unnumbered A zones if the structure is built or restored in compliance with Zone AR floodplain management regulations. |
| MODERATE to LOW | ZONE X 500 | An area inundated by 500-year flooding; an area inundated by 100-year flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; or an area protected by levees from 100-year flooding. |

Flood

Zone A is interchangeably referred to as the 100-year flood, the one-percent-annual chance flood, or the Special Flood Hazard Area (SFHA), or more commonly, the base flood. By any name, it is the area that will convey the base flood. This area constitutes a threat to the planning area and it is the only threat; no other flood zones have been mapped in the CVCOG Region according to available flood maps.

Structures built in the Special Flood Hazard Area are subject to damage by rising waters and floating debris. Moving flood water exerts pressure on everything in its path and causes erosion of soil and solid objects. Utility systems, such as heating, ventilation, air conditioning, fuel, electrical systems, sewage maintenance systems and water systems, if not elevated above base flood elevation, may also be damaged.

Extent is provided for each county and each participating community within that county in terms of depth of flood waters. Table 5-2 below describes the category of risk and potential magnitude of an event while Table 5-3 provides the range of intensity by county as the extent is universal for the participating communities within each county.

The water depths depicted in Table 5-2 are an approximation based on elevation data (above sea level rather than above ground) and stream gauge data provided by the National Weather Service. This level of risk is determined by the levels of area streams and rivers.

Table 5-2. Extent Scale – Water Depth (Mean Sea Level, MSL)

| SEVERITY | MSL (IN FEET) | DESCRIPTION |
|-----------------------------|---------------|--|
| BELOW FLOOD STAGE | 0 to 15 | Water begins to exceed low sections of banks and the lowest sections of the floodplain. |
| ACTION STAGE | 16 to 23 | Flow is well into the floodplain, minor lowland flooding reaches low areas of the floodplain. Livestock should be moved from low lying areas. |
| FLOOD STAGE | 24 to 28 | Homes are threatened and properties downstream of river flows or in low lying areas begin to flood. |
| MODERATE FLOOD STAGE | 29 to 32 | At this stage the lowest homes downstream flood. Roads and bridges in the floodplain flood severely and are dangerous to motorists. |
| MAJOR FLOOD STAGE | 33 and above | Major flooding approaches homes in the floodplain. Primary and secondary roads and bridges are severely flooded and very dangerous. Major flooding extends well into the floodplain, destroying property, equipment and livestock. |

Table 5-3. Extent by County

| PARTICIPATING COUNTY | ESTIMATED SEVERITY PER FLOOD EVENT ¹ | PEAK FLOOD EVENT ² |
|----------------------|---|---|
| Coke | Action Stage, 16 to 23 feet | Flood Stage – over 25 feet: Floodwaters of the Colorado River reached 26.7 feet in 1957 in Robert Lee. |
| Concho | Moderate Flood Stage, 29 to 32 feet | Major Flood Stage – over 43 feet: Floodwaters in the Concho River reached over 43 feet in the September 1936 floods. |
| Crockett | Action Stage, 16 to 23 feet | Action Stage: Pecos River floodwaters reached 10.6 feet near Pandale in July of 2010. |
| Irion | Action Stage, 16 to 23 feet | Moderate Flood Stage – over 29 feet: Middle Concho River floodwaters reached 29.5 feet above Tankersley on January 1, 1900. |
| Kimble | Flood Stage, 24 to 28 feet | Major Flood Stage – over 43 feet: Llano River floodwaters reached 43.3 near Junction in June of 1935. |
| McCulloch | Action Stage, 16 to 23 feet | Moderate Flood Stage – over 29 feet: San Saba River floodwaters reached 29.1 feet near Brady in July of 1938. |
| Menard | Action Stage, 16 to 23 feet | Action Stage – over 23 feet: San Saba River floodwaters reached 23.3 feet in Menard on June 6, 1899. |
| Reagan | Below Flood Stage, 0 to 15 feet | No peak events have been recorded for Reagan county. |
| Schleicher | Action Stage, 16 to 23 feet | Peak MSL is unavailable for Schleicher County. |
| Sterling | Action Stage, 16 to 23 feet | Flood Stage – Floodwaters of the North Concho River reached 23.7 in 1948 in Sterling City. |
| Sutton | Action Stage, 16 to 23 feet | Peak MSL is unavailable for Sutton County. |
| Tom Green | Major Flood Stage, 33 feet and above | Major Flood Stage – over 45 feet: Concho River floodwaters reached 47.5 feet in the flood of August 1906 in San Angelo. |

The range of intensity that the CVCOG Region can experience is high, or Zone A. In terms of a flood event it can vary from an “Action Stage” to a “Major Flood Stage” as shown in

¹ Severity estimated by averaging floods at certain stage level over the history of flood events by county.

² Severity and peak events are provided from river and stream gauge data collected at U.S. Geological Survey (USGS). Peaks and averages provided where available.

Flood

Tables 5-2 and 5-3, with the exception of Reagan County, which has an extremely low risk for flood.

Reading the Tables 5-1 through 5-3 together with Figures 5-1 through 5-18 provide estimated and potential magnitude and severity by county. For example Tom Green County, as shown in Figure 5-18, has areas designated as Zone A, with the majority of the areas being in the unincorporated areas of the County. Reading this figure in conjunction with Table 5-1 means the county is an area of high risk for flood. Further, Table 5-3 indicates the average flood stage for an event for the county is “Major” with flood levels reaching above 33 feet and above MSL.

Historical Occurrences

Historical evidence shows that areas within the region are susceptible to flooding, especially in the form of flash flooding. It is important to note that only flood events that have been reported have been factored into this risk assessment, and in most cases NCDC data is limited to flood events that have occurred since 1994. It is likely that additional flood occurrences have gone unreported before and during this recording period. In some instances, historical flood information, as provided by NCDC, shows flood activity across a multi-county forecast area for a particular event. In such instances, an appropriate percentage of the total property and crop damage reported for the entire forecast area has been allocated to each participating county impacted by the event. Table 5-4 shows historical incident information by county.

Table 5-4. Historical Flood Events by County, 1994-2011³

| COUNTY | EVENTS | DEATHS | INJURIES |
|---------------|------------|----------|----------|
| Coke | 16 | 0 | 0 |
| Concho | 9 | 0 | 0 |
| Crockett | 26 | 0 | 0 |
| Irion | 16 | 0 | 1 |
| Kimble | 32 | 0 | 0 |
| McCulloch | 36 | 0 | 0 |
| Menard | 20 | 0 | 0 |
| Reagan | 13 | 0 | 0 |
| Schleicher | 14 | 0 | 0 |
| Sterling | 12 | 0 | 0 |
| Sutton | 29 | 0 | 0 |
| Tom Green | 60 | 0 | 3 |
| TOTALS | 296 | 0 | 4 |

³ Source: NCDC

Significant Events

21 June 1997 - Kimble County (near Segovia)

A major flood event due to 4 to 10 inches of rainfall in a 32 hour period. Roads and highways were closed; water was 5 feet deep in certain areas. No fatalities but damages to roads and bridges were estimated at \$5 million and crop damages were \$2 million from this one event.

7 October 2002 - Sutton County

A stalled cold front produced a major flood event from 4-7 inches of rain overnight. Streams overflowed their banks and 3 people were rescued by helicopter before their vehicle was swept away on a flooded road. Property damage was estimated at \$5 million.

3-5 November 2000 – Menard County

Heavy rain across McCulloch, Menard, and San Saba (not in the CVCOG) counties caused a major flood event with the San Saba River cresting at 5.7 feet above flood stage. Damage to infrastructure, homes, businesses, and agriculture in Menard County was considered substantial. Property damages totaled \$160,000. No crop loss was reported.

14 August 2005 – Coke, Sterling and Tom Green Counties

A major flood event resulted from rainfall amounts up to 10 inches in less than 48 hours, resulted in up to 5 feet of standing water in many places. Nearly 200 homes were substantially damaged. No fatalities were reported but property loss was estimated at \$930,000.

Probability of Future Events

Based on historical occurrences and extent, flooding is highly likely meaning an event is probable within the next year.

Vulnerability and Impact

The building vulnerability assessment was conducted using a GIS mapping analysis process in which the available flood maps were overlaid with local parcel data to determine the number of parcels that intersect these hazard zones. In order to determine vulnerable population counts, buildings, and values, 2010 Census population, 2000 Census building data and 2006 building value data was used.

In making vulnerability determinations, it was decided that if any portion of a structure was confirmed to be located within the flood zone, then it was considered to be at risk to that flood hazard. While the GIS-based assessment does use specific attribute data tied to each individual property (i.e., year built and building value), it does not take into account certain unknown site-specific factors that may mitigate future flood losses on a building-by-building basis (such as finished floor elevations, surrounding topography, flood proofing

Flood

measures, drainage, etc.). No further analysis on the potential vulnerability of structures to flooding was completed as part of this assessment.

Table 5-5 summarizes the vulnerability assessment which is an estimate of potential for exposure to the base flood. The results of the analysis place the following percentages at risk to flood: 5.21 percent of the population, 8.78 percent of housing units, and 5.28 percent of building value.

Table 5-5. Vulnerability to Flooding⁴

| JURISDICTION | 2010 POPULATION | | BUILDING VALUE ⁵ | | HOUSING UNITS | |
|--------------------------|-----------------|---------------------|-----------------------------|---------------------|-----------------|---------------------|
| | By Jurisdiction | Vulnerable to flood | By Jurisdiction | Vulnerable to flood | By Jurisdiction | Vulnerable to flood |
| Coke County | 3,320 | | \$291.4 | | 2,667 | |
| Bronte | 999 | 82 | \$54.9 | \$6.6 | 473 | 44 |
| Robert Lee | 1,049 | 35 | \$70.8 | \$2.6 | 636 | 19 |
| Concho County | 4,087 | | \$187.2 | | 1,637 | |
| Eden | 2,766 | 53 | \$92.5 | \$3.3 | 581 | 25 |
| Paint Rock | 273 | 26 | \$11.3 | \$1.0 | 128 | 12 |
| Crockett County | 3,719 | 1,139 | \$263.7 | \$58.4 | 1,866 | 559 |
| (No Incorporated Cities) | | | | | | |
| Irion County | 1,599 | | \$112.3 | | 856 | |
| Mertzton | 781 | 62 | \$38.6 | \$3.3 | 358 | 39 |
| Kimble County | 4,607 | 652 | \$345.1 | \$51.9 | 3,371 | 506 |
| Junction | 2,574 | 212 | \$152.9 | \$14.9 | 1,270 | 118 |
| McCulloch County | 8,283 | | \$459.6 | | 4,302 | |
| Melvin | 178 | 24 | \$8.9 | \$1.4 | 113 | 20 |
| Menard County | 2,242 | | \$148.4 | | 1,702 | |
| Menard | 1,471 | 580 | \$69.4 | \$31.7 | 828 | 302 |
| Reagan County | 3,367 | | \$178.8 | | 1,372 | |
| Big Lake | 2,936 | | | | 1,089 | |
| Schleicher County | 3,461 | | \$163.7 | | 1,489 | |
| Eldorado | 1,951 | 27 | \$95.8 | \$1.3 | 838 | 10 |
| Sterling County | 1,143 | | \$89.1 | | 615 | |
| Sterling | 888 | 58 | \$65.8 | \$6.0 | 419 | 27 |

⁴ N/A is listed for dollar amounts less than \$5,000 and populations less than 50.

⁵ Values are in millions of dollars.

Flood

| JURISDICTION | 2010 POPULATION | | BUILDING VALUE ⁵ | | HOUSING UNITS | |
|-------------------------|-----------------|---------------------|-----------------------------|---------------------|-----------------|---------------------|
| | By Jurisdiction | Vulnerable to flood | By Jurisdiction | Vulnerable to flood | By Jurisdiction | Vulnerable to flood |
| Sutton County | 4,128 | 886 | \$259.0 | \$40.4 | 2,031 | 366 |
| Sonora | 3,027 | 735 | \$157.0 | \$34.0 | 1,323 | 299 |
| Tom Green County | 110,224 | 5,145 | \$6,423.0 | \$320.2 | 46,571 | 2,360 |
| San Angelo | 93,200 | 2,707 | \$5,600.0 | \$195.8 | 39,548 | 1,304 |
| COUNTY TOTALS | 150,180 | 7,822 | \$8,921 | \$471 | 68,479 | 6,010 |

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each county. Table 5-6 depicts the level of impact for each county, which includes the level of impact for the participating jurisdiction within each county.

Table 5-6. Impact by County

| COUNTY | IMPACT | DESCRIPTION |
|-----------|--------|--|
| Coke | Major | Severe flood events could result in injuries, illness or permanent disability. Critical facilities in Bronte and Robert Lee could be shut down for at least two weeks and more than 25 percent of property could be damaged. |
| Concho | Minor | Injury or illnesses many not result in disability, and although property would be destroyed or damage it would be limited to 10 percent, with critical facilities shut down for a week. |
| Crockett | Major | Severe flood events could result in injuries, illness or permanent disability for residents in the county although damage would be major to facilities, there are few located within the unincorporated areas of the county. |
| Irion | Major | Injury or illnesses may result in disability, and more than 25 percent of property could be destroyed or damaged. Critical facilities in Mertzon may be shut down for up to two weeks or more. |
| Kimble | Major | Severe flood events could result in injuries, illness or permanent disability with critical facilities shut down for two weeks in the City of Junction as well as more than 25 percent of property damaged or destroyed. |
| McCulloch | Minor | Injury or illnesses many not result in disability, and although property would be destroyed or damage it would be limited to 10 percent, with critical facilities shut down for a week. |
| Menard | Minor | Citizens in Menard and unincorporated areas of the county |

| COUNTY | IMPACT | DESCRIPTION |
|------------|-------------|--|
| | | could be injured or suffer illnesses, but not permanent disability. Critical facilities could be shut down for a week and 10 percent of total property could be damaged. |
| Reagan | Limited | Any injuries or illnesses would be treatable with first aid, with minor quality of life lost. If critical facilities are shut down it would be for 24 hours or less, and it is expected that less than 10 percent of property would be destroyed or damaged. |
| Schleicher | Minor | Citizens in Eldorado and unincorporated areas of the county could be injured or suffer illnesses, but not permanent disability. Critical facilities could be shut down for a week and 10 percent of total property could be damaged. |
| Sterling | Major | Injury or illnesses may result in disability, and more than 25 percent of property could be destroyed or damaged. Critical facilities in Sterling City may be shut down for up to two weeks or more. |
| Sutton | Minor | Citizens in Sonora and unincorporated areas of the county could be injured or suffer illnesses, but not permanent disability. Critical facilities could be shut down for a week and 10 percent of total property could be damaged. |
| Tom Green | Substantial | Injuries and deaths can be expected in a sever flood event with more than 50 percent of property destroyed or damaged and a complete shutdown of critical facilities in San Angelo and unincorporated areas of the county for 30 days or more. |

NFIP Participation

Flood insurance offered through the National Flood Insurance Program (NFIP) is the best way for home and business owners to protect themselves financially against the flood hazard. Of the 25 jurisdictions in the CVCOG Region, all participate in the NFIP with the exception of the Towns of Paint Rock (Concho County) and Melvin (McCulloch County). Table 5-7 below lists the communities that are not participating and provides a reason for non-participation.

Table 5-7. Communities Not Participating in the NFIP

| COUNTY | JURISDICTION | REASON FOR NON-PARTICIPATION |
|-----------|--------------------|------------------------------|
| Concho | Town of Paint Rock | Lack of funds |
| McCulloch | Town of Melvin | Lack of funds |

As an additional indicator of floodplain management responsibility, communities may choose to participate in FEMA’s Community Rating System (CRS). This is an incentive-based program that allows communities to undertake flood mitigation activities that go

beyond NFIP requirements. Currently, no participating CVCOG communities participate in CRS.

NFIP Compliance and Maintenance

Jurisdictions in the CVCOG Region have also developed mitigation actions or analyzed previous actions that relate to either NFIP maintenance or compliance. Compliance and maintenance actions can be found in Section 17.

Flooding was identified by the majority of the counties as a moderate risk hazard during hazard ranking activities at the Risk Assessment Workshop. However, many of the mitigation actions, both for communities that participated in the 2005 Plan and those participating in the Plan Update, were developed with flood mitigation in mind. A majority of these flood actions address compliance with the NFIP and implementing flood awareness programs. Region-wide, communities recognize the need and are adopting higher NFIP regulatory standards to further minimize flood risk in their community. Smaller no-growth communities that typically do not have personnel or funds to implement more stringent NFIP compliance measures are focusing on NFIP public awareness activities. This includes promoting the availability of flood insurance by placing NFIP brochures and flyers in public libraries or public meeting places.

The prioritization method for implementing actions was based on FEMA's STAPLE+E criteria and included social, technical, administrative, political, legal, economic and environmental considerations. As a result of this exercise, an overall priority was assigned to each mitigation action by each Team member. The overall priority of each action is reflected in the mitigation actions found in Section 17 for the local jurisdictions. In prioritizing actions a community must consider many factors. Of primary consideration is targeting specific mitigation actions for implementation following a major disaster. Other factors that determine prioritization are, in part, ease of implementation by the community, cost of the project vs. perceived benefit, timeframe for implementing the action, and available personnel to oversee and implement the project.

FEMA's Community Rating System (CRS) is an incentive-based program that allows communities to undertake flood mitigation activities that go beyond NFIP requirements. Currently, no participating CVCOG communities participate in CRS.

Repetitive Loss

The Severe Repetitive Loss (SRL) Grant Program under FEMA provides federal funding to assist states and communities in implementing mitigation measures to reduce or eliminate the long-term risk of flood damage to severe repetitive loss residential structures insured

Flood

under the NFIP. The Texas Water Development Board (TWDB) administers the SRL grant program for the State of Texas.

Severe Repetitive Loss properties are defined as residential properties that are:

- covered under the NFIP and have at least four flood related damage claim payments (building and contents) over \$5,000.00 each, and the cumulative amount of such claims payments exceed \$20,000; or
- at least two separate claim payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

In either scenario, at least two of the referenced claims must have occurred within any ten-year period, and must be greater than 10 days apart.⁶ Table 5-8 shows repetitive loss and severe repetitive loss properties for the counties.

Table 5-8. Repetitive Loss and Severe Repetitive Loss Properties

| COUNTY | JURISDICTION | PROPERTY # | INSURED? | BUILDING TYPE | LOSSES | TOTAL PAID | SRL INDICATOR ⁷ |
|-----------|--------------|------------|----------|-------------------------|--------|-------------|----------------------------|
| Menard | Menard | 0005599 | No | Single family residence | 2 | \$20,425.06 | - |
| | Menard | 0044991 | No | | | \$21,443.75 | - |
| | Menard | 0056784 | No | | | \$14,182.95 | PU |
| | Ft. McKavett | 0050177 | Yes | | | \$14,132.06 | - |
| Tom Green | San Angelo | 0123241 | Yes | | | \$4,585.53 | - |
| | San Angelo | 0118558 | Yes | | | \$17,191.72 | - |
| | San Angelo | 0043376 | No | | | \$30,413.84 | - |

⁶ Source: Texas Water Development Board

⁷ In this column: “V” stands for “Validated”; “VN” stands for “Validated Nonresidential”; “VU” stand for “Validated Uninsured”; “VNU” stands for “Validated Nonresidential Uninsured”; “P” stands for “Pending”; “PU” stands for “Pending Uninsured”; and “PN” stands for “Pending Nonresidential”.

THUNDERSTORM

HAZARD DESCRIPTION 1
LOCATION..... 1
EXTENT..... 1
HISTORICAL OCCURRENCES 3
 SIGNIFICANT PAST EVENTS..... 4
PROBABILITY OF FUTURE EVENTS 5
VULNERABILITY AND IMPACT 5

Hazard Description

Thunderstorms are generally considered a common occurrence in the CVCOG Region. Typical thunderstorms are 15 miles in diameter and last an average of 30 minutes. Despite the short time span, thunderstorms can be extremely dangerous, as they are often strong and fast in their approach and can be accompanied by flash flooding, lightning, hail, tornadoes, and high winds.

Location

Thunderstorms are geographically random, making it impossible to predict where they will strike. Thus, it is assumed that the CVCOG Region is uniformly exposed to the threat of thunderstorms.

Extent

A thunderstorm is measured in terms of intensity based on the strength of the wind speeds or significant winds associated with the thunderstorm event. Table 6-1 depicts intensity for thunderstorms according to wind magnitude published by the World Meteorological Organization (WMO).

Table 6-1. Beaufort Wind Scale¹

| FORCE | WIND (KNOTS) | WMO CLASSIFICATION | APPEARANCE OF WIND EFFECTS |
|-------|--------------|--------------------|--|
| 0 | Less than 1 | Calm | Calm, smoke rises vertically |
| 1 | 1-3 | Light Air | Smoke drift indicates wind direction, still wind vanes |
| 2 | 4-7 | Light Breeze | Wind felt on face, leaves rustle, vanes begin to move |
| 3 | 8-12 | Gentle Breeze | Leaves and small twigs constantly moving, light flags extended |
| 4 | 13-18 | Moderate Breeze | Dust, leaves, and loose paper lifted, small tree branches move |
| 5 | 19-24 | Fresh Breeze | Small trees in leaf begin to sway |
| 6 | 25-31 | Strong Breeze | Larger tree branches moving, whistling in wires |
| 7 | 32-38 | Near Gale | Whole trees moving, resistance felt walking against wind |
| 8 | 39-46 | Gale | Whole trees in motion, resistance felt walking against wind |
| 9 | 47-54 | Strong Gale | Slight structural damage occurs, slate blows off roofs |
| 10 | 55-63 | Storm | Seldom experienced on land, trees broken or uprooted, "considerable structural damage" |
| 11 | 64-72 | Violent Storm | If experienced on land, widespread damage |
| 12 | 73+ | Hurricane | Violence and destruction |

A thunderstorm event is typically defined by the National Climatic Data Center (NCDC) based on the intensity and magnitude of wind events associated with the thunderstorm, which can affect the planning area randomly. Because the magnitude of a thunderstorm does not take into account wind speeds from a tornado (for specific information on tornado, see Section 8), but specifically significant winds, the extent to which it can affect the planning area is a range from a Force 10 to a Force 12. On average, an intense wind event to be mitigated for each of the jurisdictions could have wind speeds over 50 miles per hour, a Force 9 from the Beaufort Wind Scale. Since the greatest wind speed recorded for the area is 87 knots (See Table 6-2), in preparation for a thunderstorm, the extent to be mitigated is a Force 12.

¹ Source: World Meteorological Organization

Historical Occurrences

Table 6-2 lists previous thunderstorm events as compiled by the NCDC. It is important to note that only thunderstorm events that have been reported have been factored into this risk assessment, and in most cases NCDC data is limited to severe thunderstorm events that are noteworthy for specific reasons (high winds, deaths, injuries, property or crop damages, lightning strikes). It is likely that a high number of thunderstorm occurrences have gone unreported over the past 50 years. Records retrieved from NCDC are reported for the jurisdiction named in Table 6-2. Remaining NCDC records for a county were considered in the total for county events and maximum recorded wind speed.

Table 6-2. Historical Thunderstorm Events by Jurisdiction, 1950-2010

| JURISDICTION | NUMBER OF REPORTED EVENTS | MAXIMUM WIND SPEED (KNOTS) |
|--------------------------|---------------------------|----------------------------|
| Coke County | 47 | 76 |
| Bronte | 8 | 52 |
| Robert Lee | 23 | 76 |
| Uninc. Coke County | 16 | - |
| Concho County | 36 | 65 |
| Eden | 10 | 61 |
| Paint Rock | 7 | 61 |
| Uninc. Concho County | 19 | - |
| Crockett County | 23 | 70 |
| (No Incorporated Cities) | 23 | 70 |
| Irion County | 21 | 80 |
| Mertzson | 11 | 80 |
| Uninc. Irion County | 10 | - |
| Kimble County | 26 | 84 |
| Junction | 10 | 61 |
| Uninc. Kimble County | 16 | - |
| McCulloch County | 55 | 70 |
| Melvin | 3 | 61 |
| Uninc. McCulloch County | 52 | - |
| Menard County | 22 | 87 |
| Menard | 0 | 0 |
| Uninc. Menard County | 22 | - |
| Reagan County | 19 | 70 |

Thunderstorm

| JURISDICTION | NUMBER OF REPORTED EVENTS | MAXIMUM WIND SPEED (KNOTS) |
|------------------------------|---------------------------|----------------------------|
| Big Lake | 4 | 52 |
| Uninc. Reagan County | 15 | - |
| Schleicher County | 25 | 65 |
| Eldorado | 20 | 65 |
| Uninc. Schleicher County | 5 | - |
| Sterling County | 18 | 61 |
| Sterling City | 11 | 61 |
| Uninc. Sterling County | 7 | - |
| Sutton County | 11 | 80 |
| Sonora | 4 | 55 |
| Uninc. Sutton County | 7 | - |
| Tom Green County | 195 | 81 |
| San Angelo | 55 | 75 |
| Uninc. Tom Green County | 140 | - |
| TOTALS FOR STUDY AREA | 498 | 87 |

Significant Past Events

29 May 1996 – Irion County

The storm brought wind, hail and a small tornado to the Town of Mertzon. Nearly every building was battered; 50 percent of all homes and 25 businesses were damaged in this 778-person town. Two homes were completely destroyed. There were no serious injuries other than people being cut by glass.

20 February 1997 – Tom Green County

Strong winds occurred in the San Angelo area during a heavy rain and flash flood event. A wind gust of 56 knots (65 mph) was recorded at Mathis Field and a gust of 69 mph was reported at Highland Range near O.C. Fisher Lake. The damaging winds then spread north from the City of San Angelo to the rural communities of Quail Valley and Grape Creek, where a gust of 65 mph was reported at Quail Valley. Storm damage in and around the City of San Angelo included downed fences, signs, and tree limbs. The drive-through section of a bank was severely damaged, and ATM machines destroyed, when the ceiling of the carport fell. Several other businesses suffered roof damage. There were also some power outages in the area.

27 May 2002- Coke County

The second severe thunderstorm of the day that moved across Robert Lee produced winds up to 80 mph causing damage to numerous houses and carports. Numerous severe thunderstorms formed over the Big Country, Concho Valley and the Heartland. Especially hard hit was the City of Robert Lee. Two severe thunderstorms moved through Robert Lee causing damage to homes and vehicles. The city, as well as other portions of Coke County, was without power for much of the night. There were several reports of high winds accompanied by hail to the size of tennis balls over eastern portions of the Concho Valley. There was also a tornado near the upper end of E.V. Spence reservoir. The tornado remained over open country and produced no damage.

Probability of Future Events

Available data was evaluated in order to provide an expected frequency of thunderstorms, potential loss estimates, a description of vulnerability, and a statement of impact of thunderstorm events.

The probability of occurrence for future thunderstorms in the CVCOG Region is highly likely, meaning it is likely of a storm event occurring within the next year. According to the NCDC reported historical occurrences, counties within the CVCOG Region experience a severe storm eight times a year. Given this regular frequency of occurrence, it can be expected that future thunderstorms will continue to threaten life and property throughout the planning area.

Vulnerability and Impact

Vulnerability is difficult to evaluate since thunderstorms can occur at different strength levels, in random locations, and can create relatively narrow paths of destruction. Due to the randomness of this event, all existing and future structures and facilities in the planning region could potentially be impacted and remain vulnerable to possible injury and/or property loss from lightning, hail and strong winds associated with thunderstorms.

Lightning damage can result in electrocution of humans and animals; vaporization of materials along the path of the strike; fire caused by the high temperature produced by the strike; and sudden power surges that can damage electrical and electronic equipment. Millions of dollars of direct and indirect damages result from lightning strikes on electric utility substations and distribution lines. While property damage is the major hazard associated with lightning, it should be noted that



Thunderstorm

lightning strikes kill nearly 100 people each year in the United States².

Impact quantified by reported thunderstorm events were estimated as described in Section 4, Risk Overview. Table 6-3 below summarizes the total reported property and crop losses by jurisdiction. Total losses reported when considered over the 60 year recording period provides an expected annual loss ranging from zero to over \$1.6 million in damages sustained annually by one jurisdiction.

Table 6-3. Potential Annualized Losses by Jurisdiction³

| JURISDICTION | TOTAL EXPOSURE | ANNUALIZED LOSS (AL) |
|--------------------------|----------------------|----------------------|
| Coke County | \$291,393,000 | \$21,838 |
| Bronte | \$54,912,000 | \$372 |
| Robert Lee | \$70,672,000 | \$1,898 |
| Uninc. Coke County | \$165,809,000 | \$19,567 |
| Concho County | \$187,173,000 | \$4,575 |
| Eden | \$92,364,000 | \$3,048 |
| Paint Rock | \$11,315,000 | \$99 |
| Uninc. Concho County | \$73,494,000 | \$1,428 |
| Crockett County | \$264,006,000 | \$1,634 |
| (No Incorporated Cities) | | |
| Irion County | \$112,315,000 | \$253,255 |
| Mertzon | \$38,576,000 | \$253,255 |
| Uninc. Irion County | \$73,739,000 | \$0 |
| Kimble County | \$345,134,000 | \$5,560 |
| Junction | \$152,827,000 | \$2,452 |
| Uninc. Kimble County | \$195,307,000 | \$3,108 |
| McCulloch County | \$459,543,000 | \$15,597 |
| Melvin | \$8,875,000 | \$176 |
| Uninc. McCulloch County | \$450,668,000 | \$15,421 |
| Menard County | \$148,418,000 | \$9,948 |
| Menard | \$75,051,000 | \$0 |
| Uninc. Menard County | \$73,397,000 | \$9,948 |
| Reagan County | \$178,789,000 | \$83 |
| Big Lake | \$146,223,000 | \$42 |

² National Weather Service

³ Source: HAZUS-MH MR4 (exposure values) and NCDC (property and crop losses), values are in 2009 dollars

Thunderstorm

| JURISDICTION | TOTAL EXPOSURE | ANNUALIZED LOSS (AL) |
|------------------------------|------------------------|----------------------|
| Uninc. Reagan County | \$27,827,743 | \$40 |
| Schleicher County | \$163,684,000 | \$17,401 |
| Eldorado | \$95,802,000 | \$17,401 |
| Uninc. Schleicher County | \$66,277,606 | \$0 |
| Sterling County | \$89,092,000 | \$1,564 |
| Sterling City | \$66,795,000 | \$1,564 |
| Uninc. Sterling County | \$18,645,655 | \$0 |
| Sutton County | \$259,042,000 | \$1,706 |
| Sonora | \$158,154,000 | \$1,706 |
| Uninc. Sutton County | \$19,012,957 | \$0 |
| Tom Green County | \$6,412,709,000 | \$1,600,319 |
| San Angelo | \$5,615,423,000 | \$1,589,801 |
| Uninc. Tom Green County | \$701,041,341 | \$10,518 |
| TOTALS FOR STUDY AREA | \$8,903,862,000 | \$1,933,479 |

According to the available data for previous occurrences, high winds are common to the CVCOG area when accompanied by thunderstorms. The severity of impact of thunderstorms in the CVCOG Region can be major; leaving more than 25 percent of property destroyed and the shutdown of critical facilities for two weeks. If another Beaufort event of Force 12 or higher were to occur, the area would be susceptible to widespread violence and destruction, that would include structural damage to structural facilities, especially roofs and windows. Injuries may also occur as a result of debris that is carried by strong gusts or twigs and branches that are broken off from the force of the wind. Traffic disruptions may also occur as traffic lights could be damaged or flying debris could cause accidents on the road. This would hinder the ability of critical services staff to travel to and from work.

HAIL

| | |
|---|-----------|
| HAZARD DESCRIPTION | 1 |
| LOCATION | 1 |
| EXTENT | 2 |
| HISTORICAL OCCURRENCES | 3 |
| SIGNIFICANT PAST EVENTS..... | 18 |
| PROBABILITY OF FUTURE EVENTS | 19 |
| VULNERABILITY AND IMPACT | 19 |

Hazard Description

Hailstorms are a potentially damaging outgrowth of severe thunderstorms. Early in the developmental stages of a hailstorm, ice crystals form within a low-pressure front due to



the rapid rising of warm air into the upper atmosphere and subsequent cooling of the air mass. Frozen droplets gradually accumulate into ice crystals until they fall as precipitation that is round or irregularly shaped masses of ice greater than 0.75 inches in diameter. The size of hailstones is a direct result of the size and severity of the storm. High velocity updraft winds are required to keep hail in suspension in thunderclouds. The strength of the updraft is a byproduct

of heating on the Earth’s surface. Higher temperature gradients above the Earth’s surface result in increased suspension time and hailstone size.

Location

Hailstorms vary tremendously in terms of size, location, intensity and duration but are considered frequent occurrences throughout the CVCOG Region. It is assumed that all of the jurisdictions are uniformly exposed to hail events just as they are exposed to the thunderstorms that produce the hail events.

Extent

Most hailstorms occur during the spring (March, April and May) and in the fall during the month of September. Warning time for a hailstorm is generally minimal or there is no warning. The National Weather Service classifies a storm as severe if hail of three-quarters of an inch in diameter (approximately the size of a penny) or greater is imminent based on radar intensity or seen by observers.

The severity of hail events range based on the size of hail, winds, and structures in the path of a hailstorm. Storms that produce high winds in addition to hail are most damaging and can result in numerous broken windows and damaged siding. Hailstorms can cause extensive property damage affecting both urban and rural landscapes. Fortunately, most hailstorms produce marble-size or smaller hailstones. These can cause damage to crops, but they normally do not damage buildings or automobiles. Larger hailstones can destroy crops, livestock and wildlife and can cause extensive damage to buildings, including roofs, windows and outside walls. Vehicles can be total losses. When hail breaks windows, water damage from accompanying rains can also be significant. A major hailstorm can easily cause damage amounting into the millions of dollars. Nationwide hail is responsible for over one billion dollars in property and crop damages per year. A scale showing intensity categories was developed by the National Climatic Data Center (NCDC) and is included in Table 7-1.

Table 7-1. Hail Intensity and Magnitude

| SIZE CODE | INTENSITY CATEGORY | SIZE (DIAMETER INCHES) | DESCRIPTIVE TERM | TYPICAL DAMAGE |
|-----------|----------------------|------------------------|------------------|--|
| H0 | Hard Hail | Up to 0.33 | Pea | No damage |
| H1 | Potentially Damaging | 0.33 – 0.60 | Marble | Slight damage to plants and crops |
| H2 | Potentially Damaging | 0.60 – 0.80 | Dime | Significant damage to plants and crops |
| H3 | Severe | 0.80 – 1.20 | Nickel | Severe damage to plants and crops |
| H4 | Severe | 1.2 – 1.6 | Quarter | Widespread glass and auto damage |
| H5 | Destructive | 1.6 – 2.0 | Half Dollar | Widespread destruction of glass, roofs, and risk of injuries |
| H6 | Destructive | 2.0 – 2.4 | Ping Pong Ball | Aircraft bodywork dented and brick walls pitted |

Hail

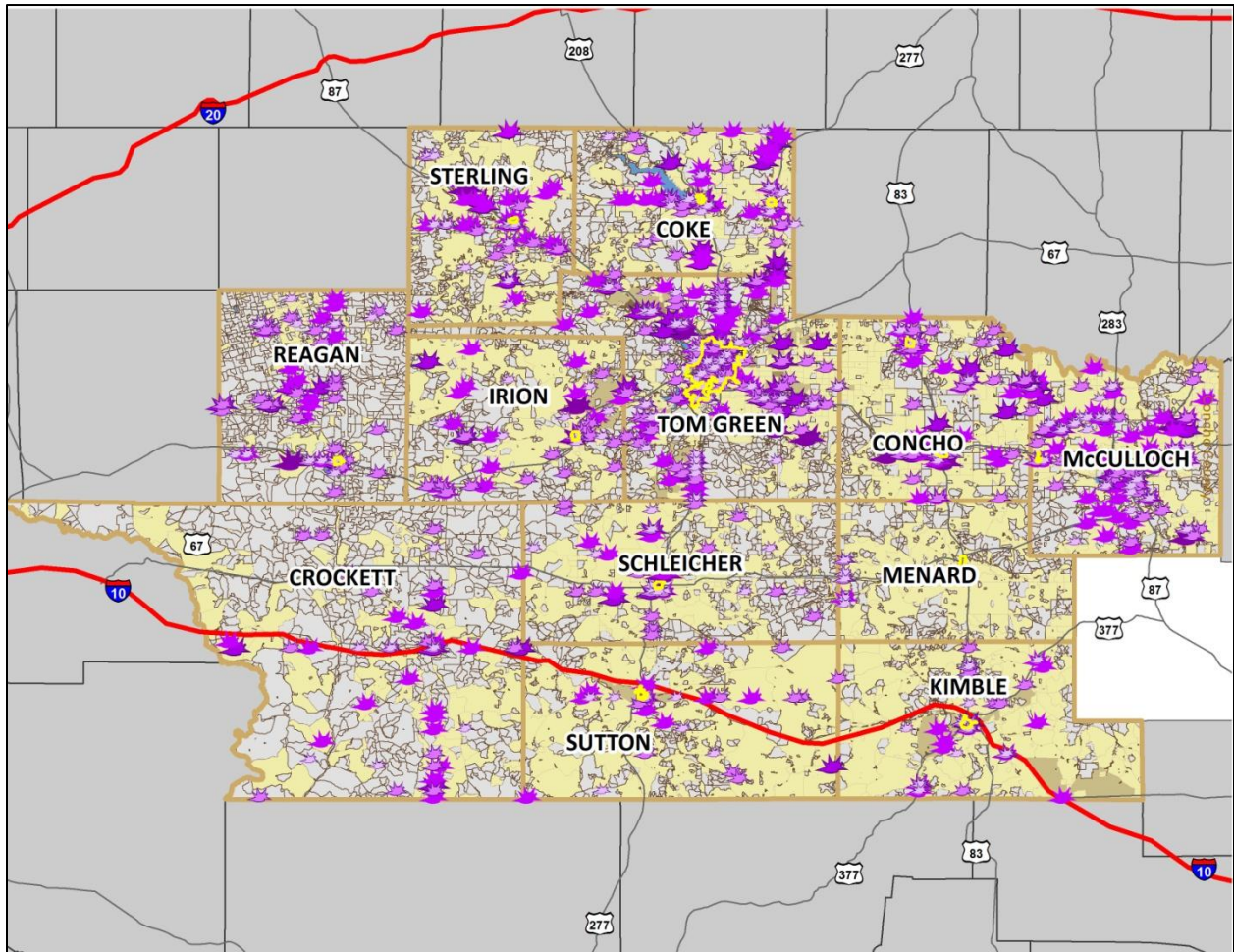
| SIZE CODE | INTENSITY CATEGORY | SIZE (DIAMETER INCHES) | DESCRIPTIVE TERM | TYPICAL DAMAGE |
|-----------|--------------------|------------------------|------------------|---|
| H7 | Very Destructive | 2.4 – 3.0 | Golf Ball | Severe roof damage and risk of serious injuries |
| H8 | Very Destructive | 3.0 – 3.5 | Hen Egg | Severe damage to all structures |
| H9 | Super Hailstorms | 3.5 – 4.0 | Tennis Ball | Extensive structural damage, could cause fatal injuries |
| H10 | Super Hailstorms | 4.0 + | Baseball | Extensive structural damage, could cause fatal injuries |

The range of intensity for a hailstorm event for CVCOG jurisdictions is anywhere from an H0 to an H10 on the Hail Intensity Scale. Based on the historical occurrences, the area has experienced an H10 event; hailstorms in the region have produced hail larger than 5.0 inches in diameter. All communities in the planning area are equally susceptible to hail events and should mitigate to an extent of an H10 hail event as many jurisdictions have experienced hail larger than 4.0 inches in diameter.

Historical Occurrences

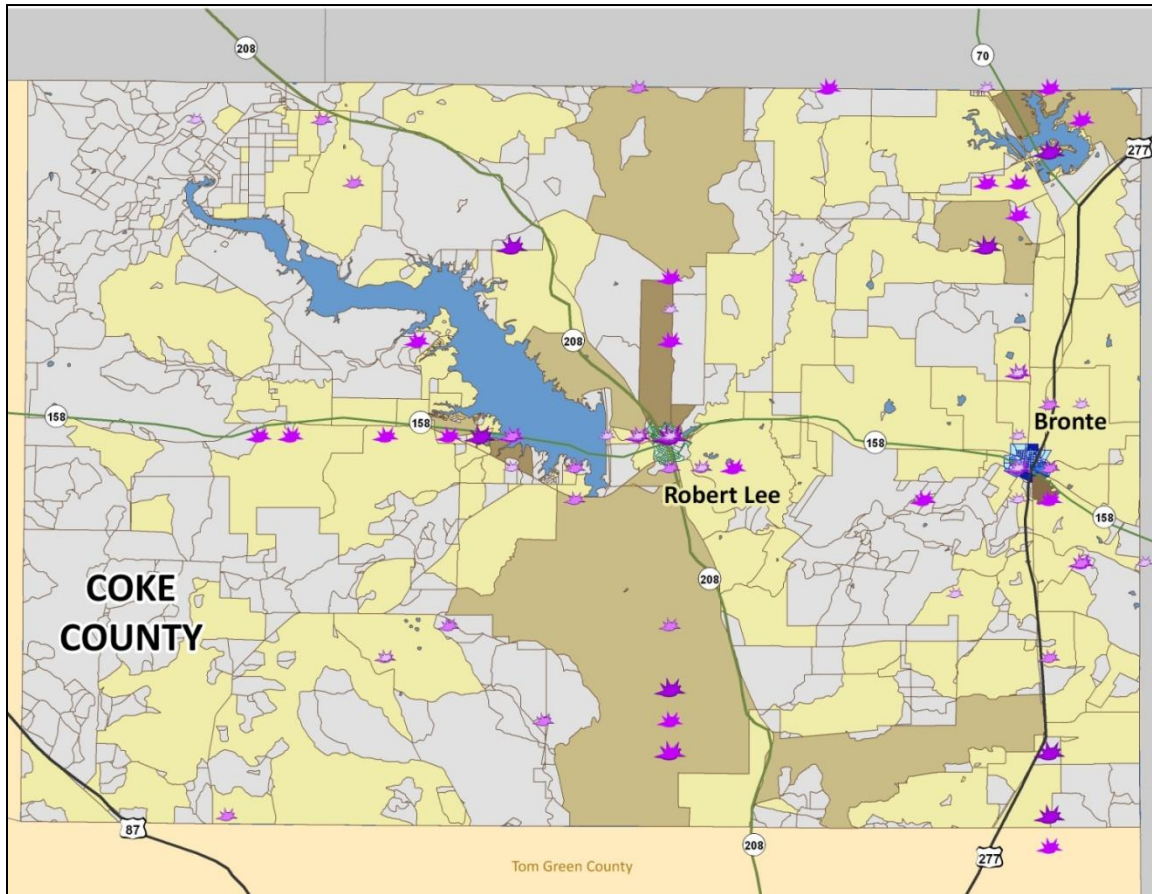
Figure 7-1 shows the historical hail events that have impacted the CVCOG study area from 1950 to 2010, and Figures 7-2 through 7-13 show the historical hail events at the county level that have impacted each jurisdiction. There are no clear distinctive patterns indicating some areas have higher frequencies or magnitudes than others. This is in part due to this reporting system, and the general distribution of hail events as seen on the maps.

Figure 7-1. Spatial Historical Hail Events in CVCOG, 1950–2010¹



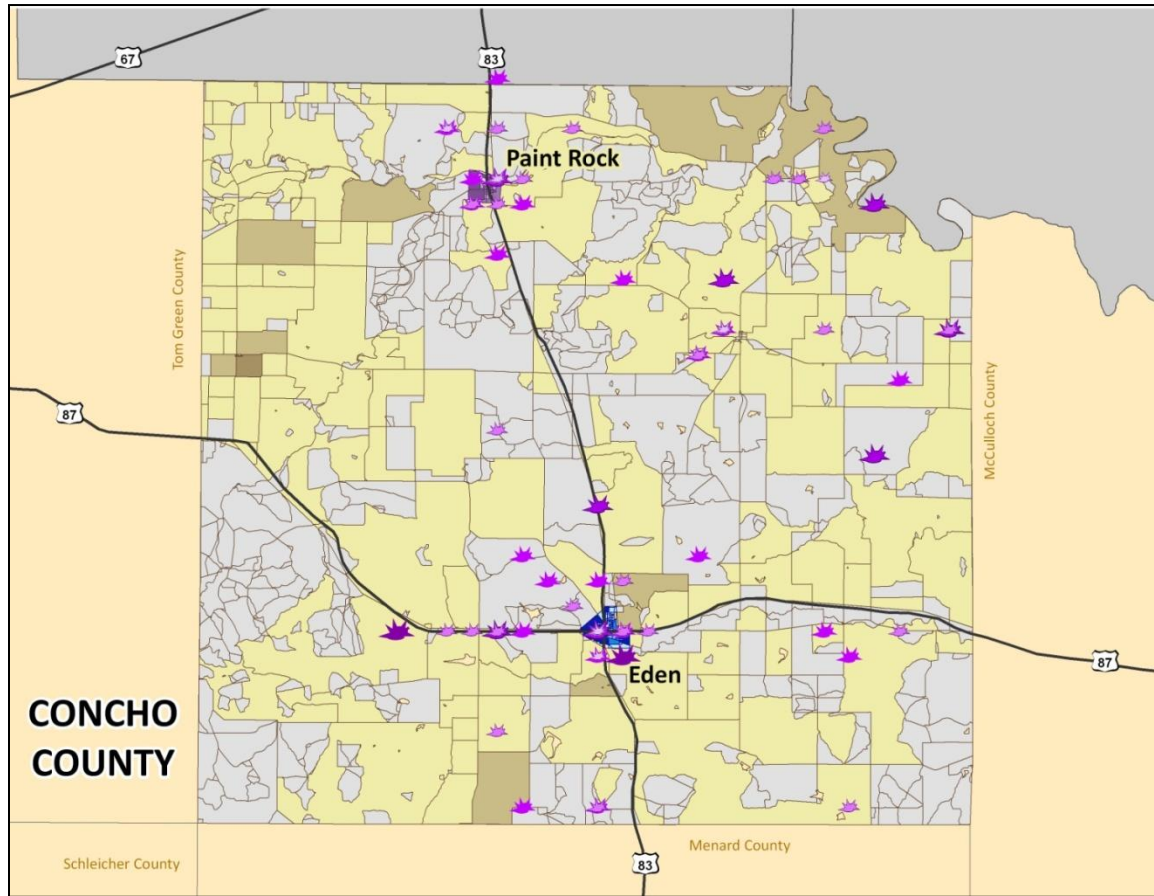
¹ Source: NOAA/NCDC Records

Figure 7-2. Historical Hail Events in Coke County²



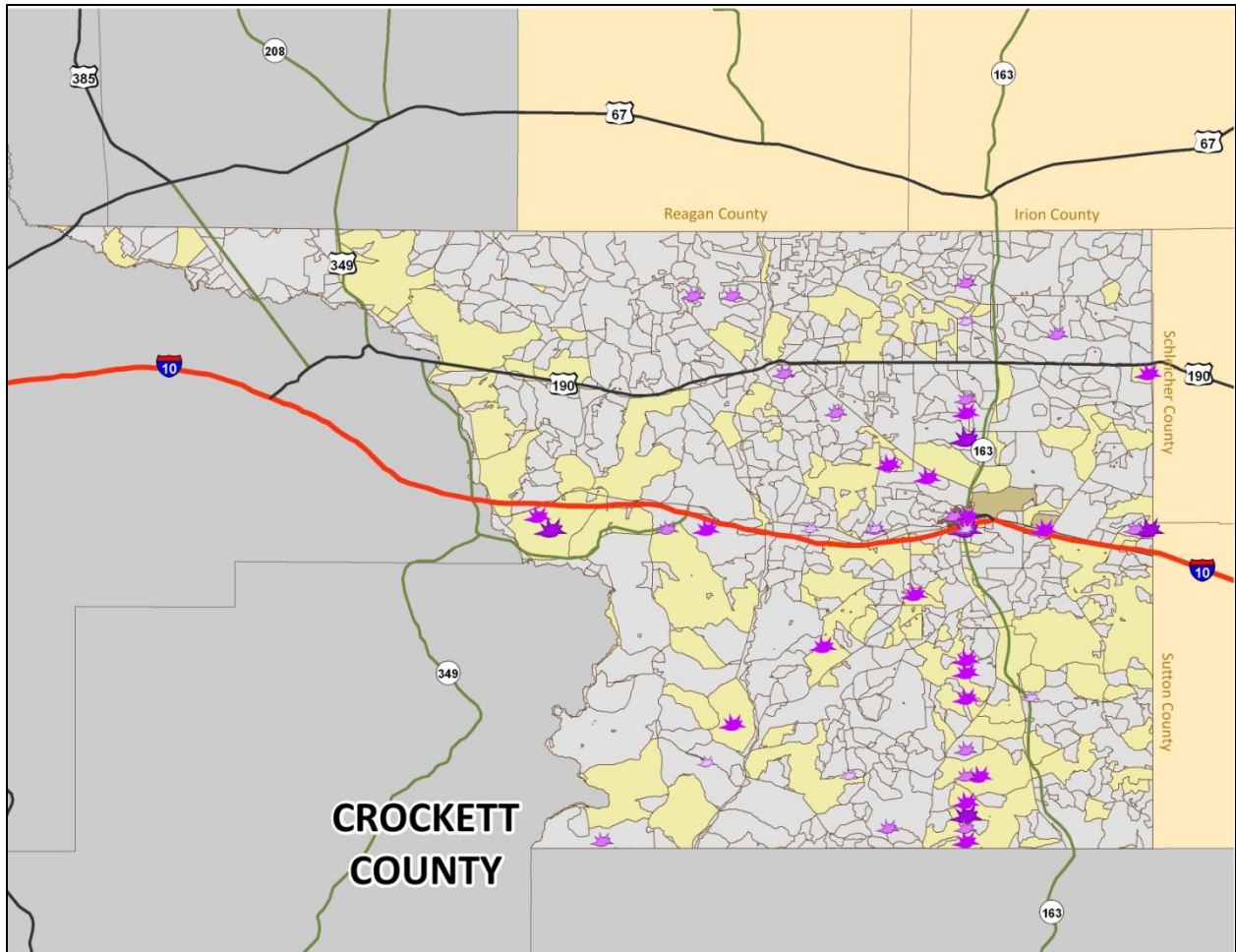
² Source: NOAA/NCDC Records

Figure 7-3. Historical Hail Events in Concho County³



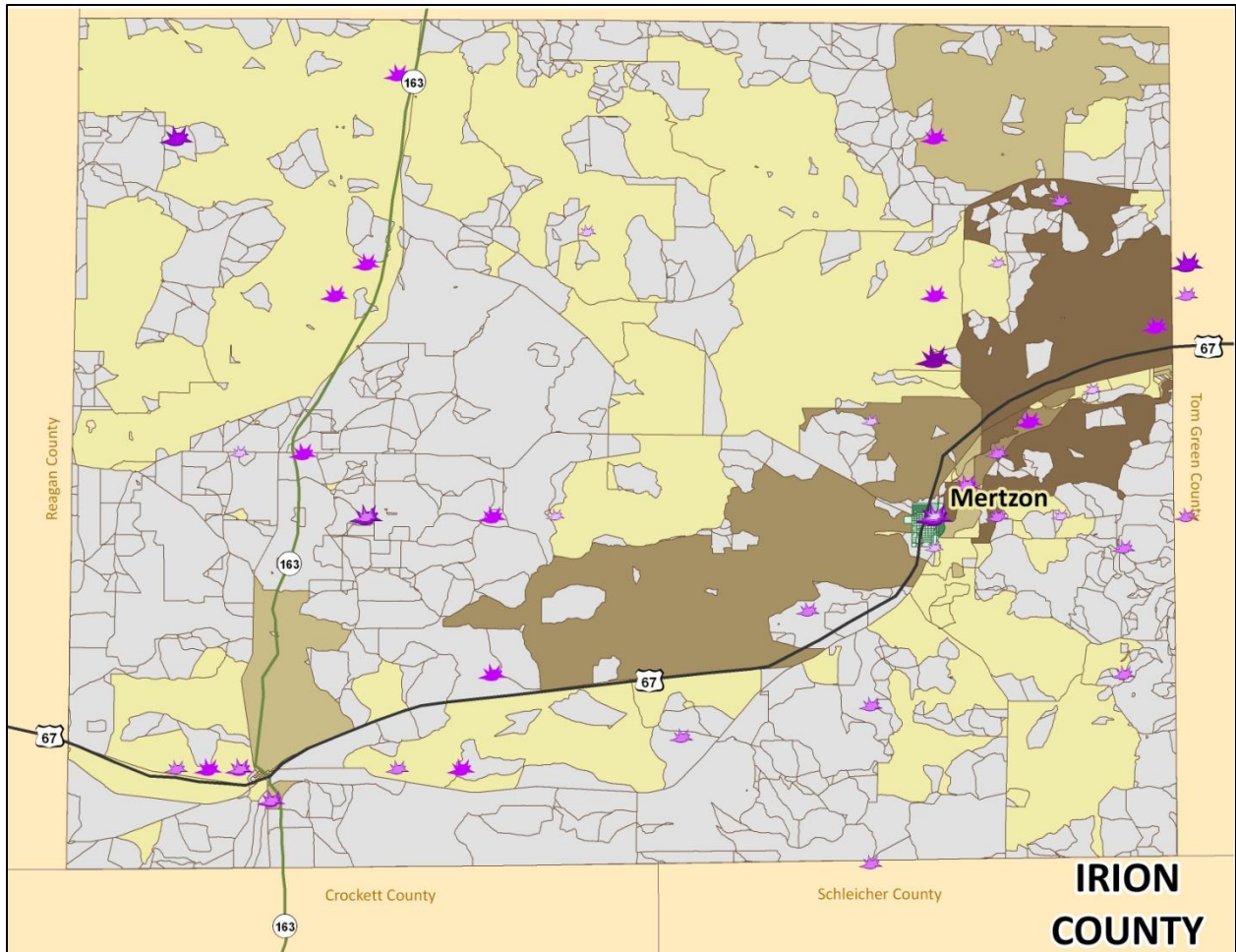
³ Source: NOAA/NCDC Records

Figure 7-4. Historical Hail Events in Crockett County⁴



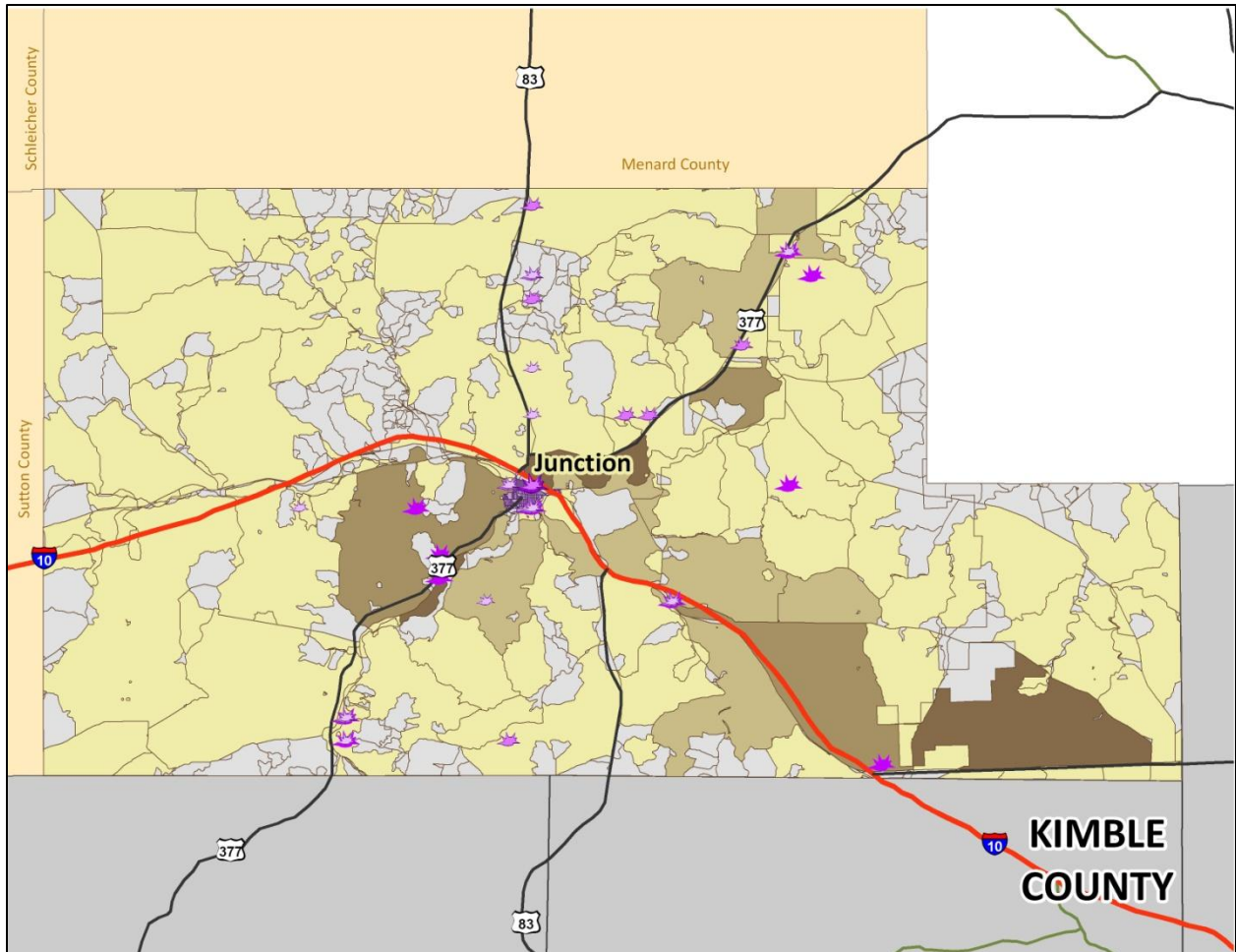
⁴ Source: NOAA/NCDC Records

Figure 7-5. Historical Hail Events in Irion County⁵



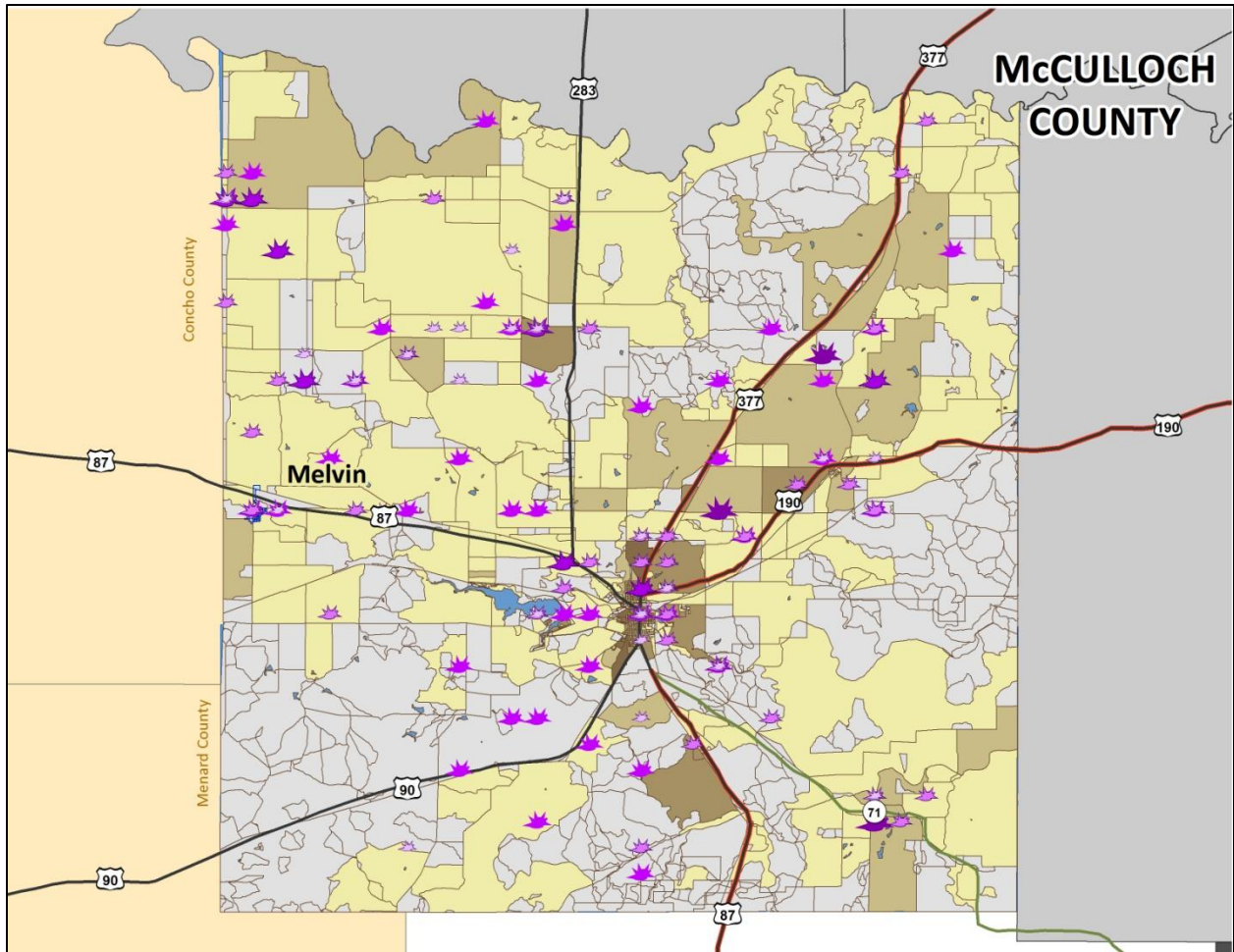
⁵ Source: NOAA/NCDC Records

Figure 7-6. Historical Hail Events in Kimble County⁶



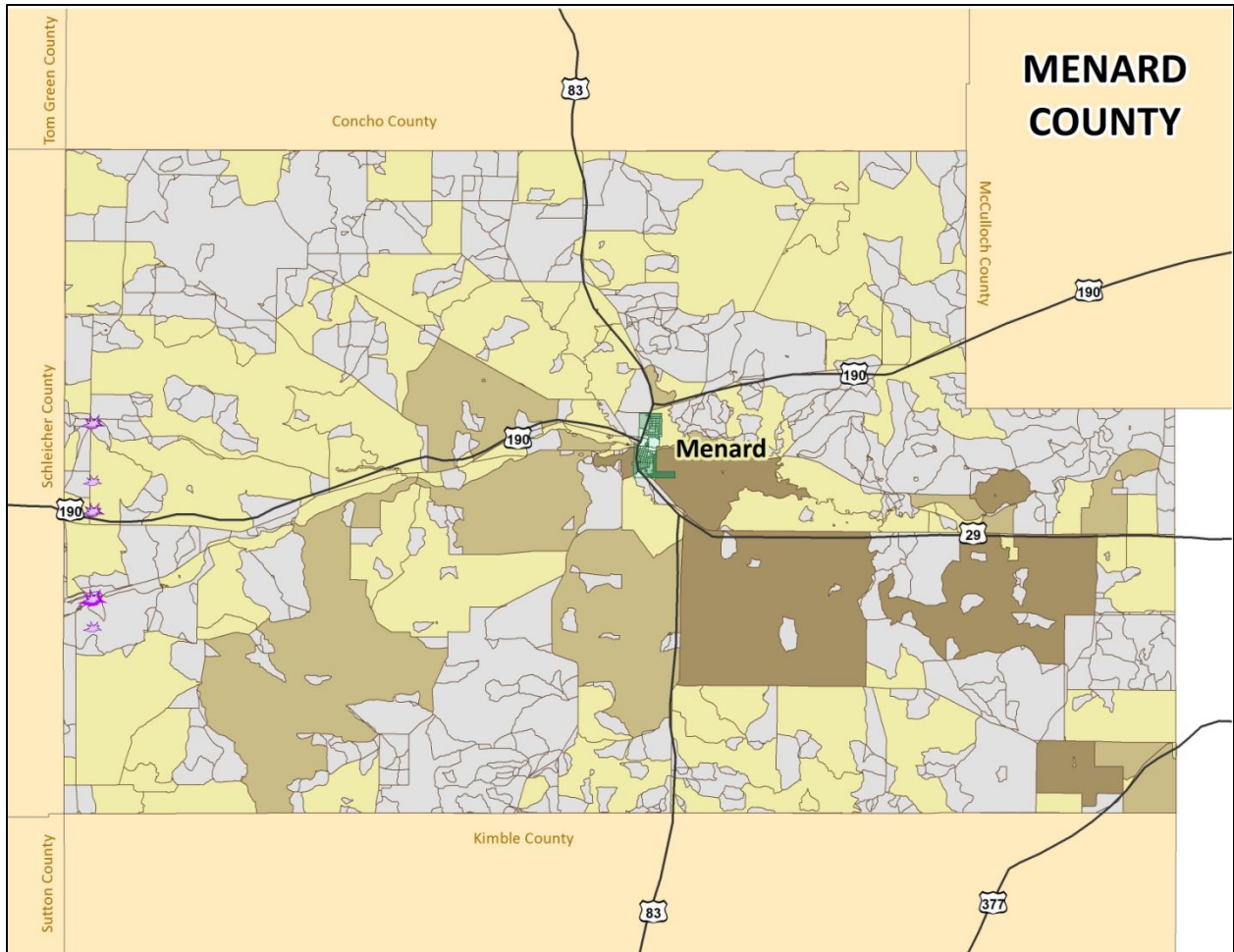
⁶ Source: NOAA/NCDC Records

Figure 7-7. Historical Hail Events in McCulloch County⁷



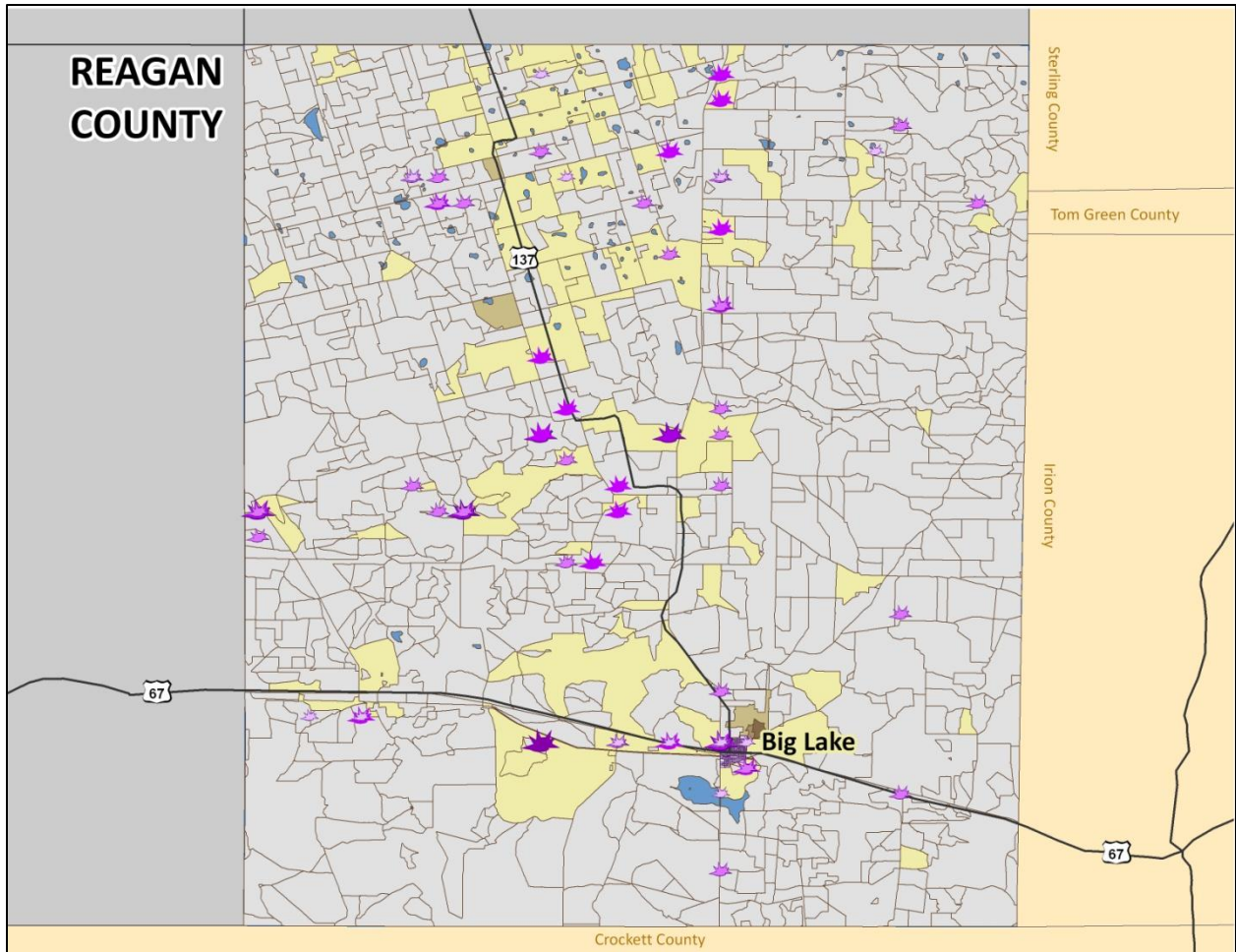
⁷ Source: NOAA/NCDC Records

Figure 7-8. Historical Hail Events in Menard County⁸



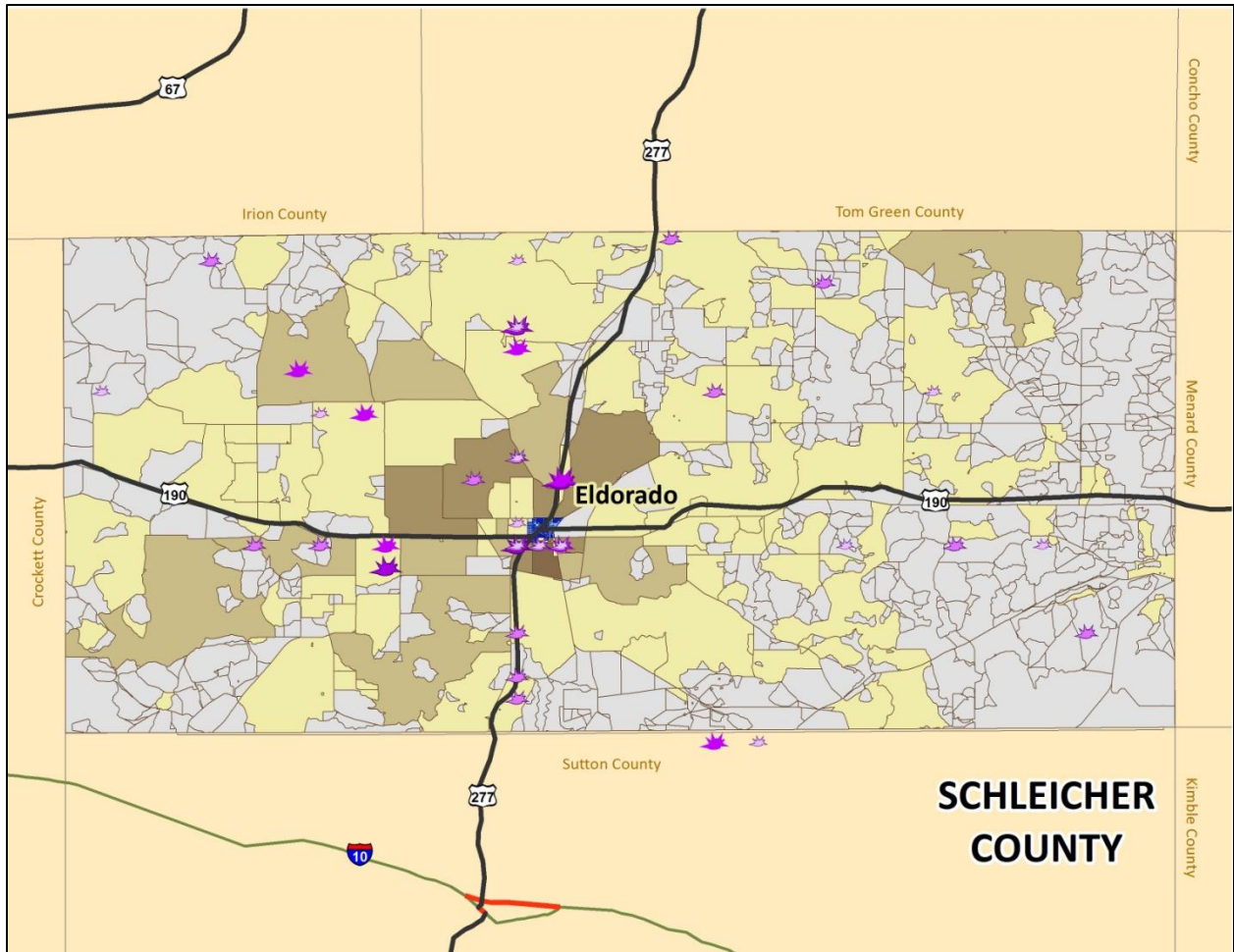
⁸ Source: NOAA/NCDC Records

Figure 7-9. Historical Hail Events in Reagan County⁹



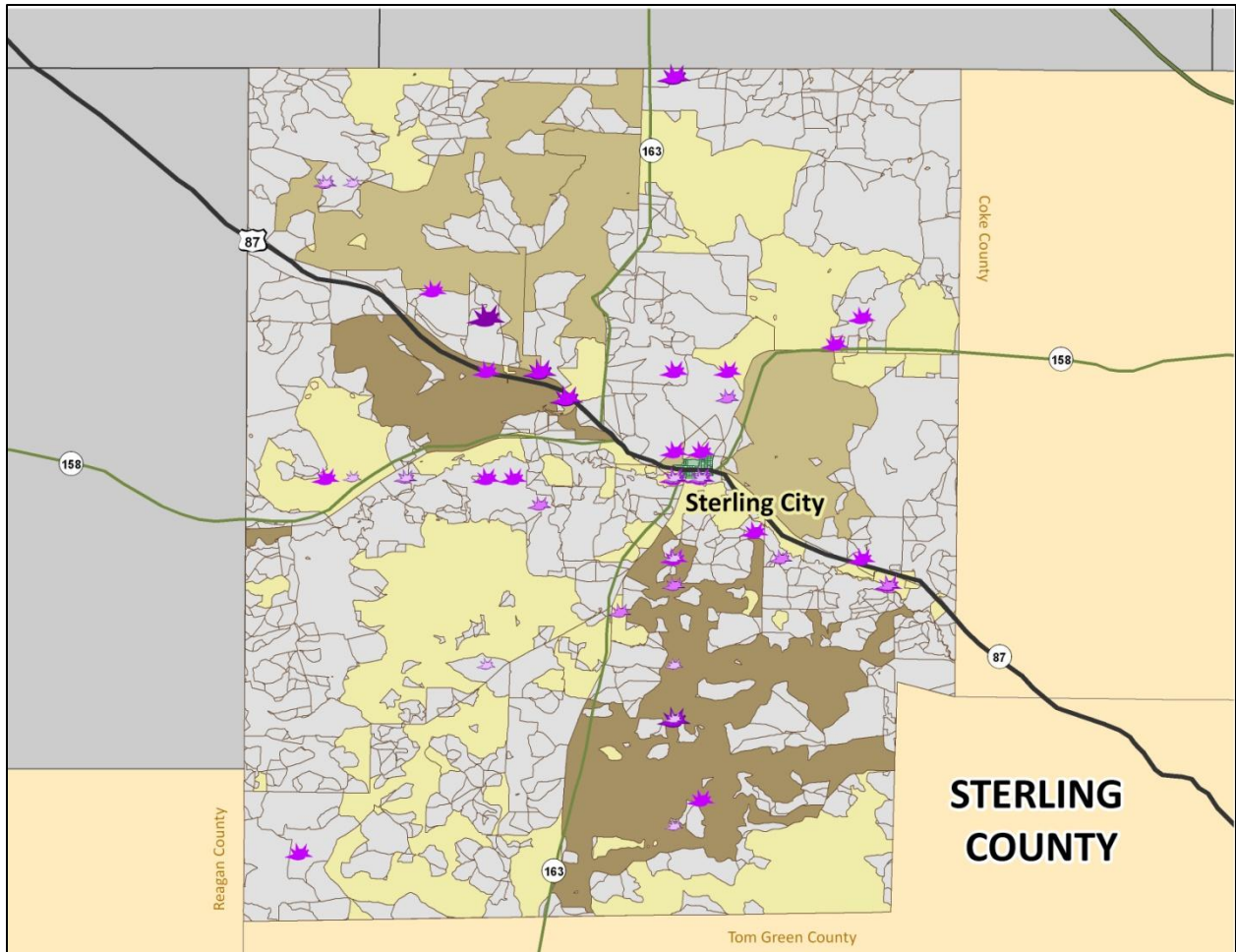
⁹ Source: NOAA/NCDC Records

Figure 7-10. Historical Hail Events in Schleicher County¹⁰



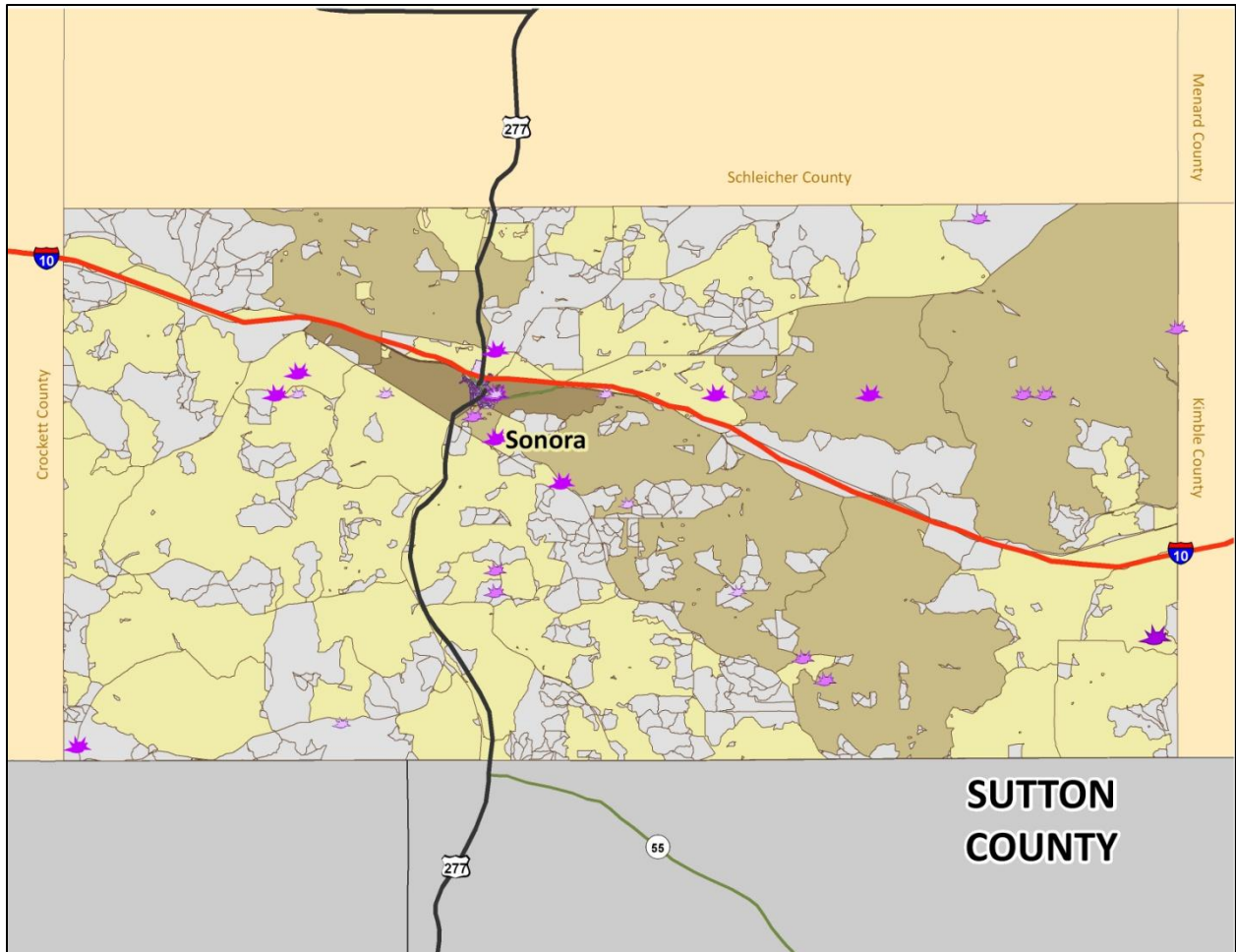
¹⁰ Source: NOAA/NCDC Records

Figure 7-11. Historical Hail Events in Sterling County¹¹



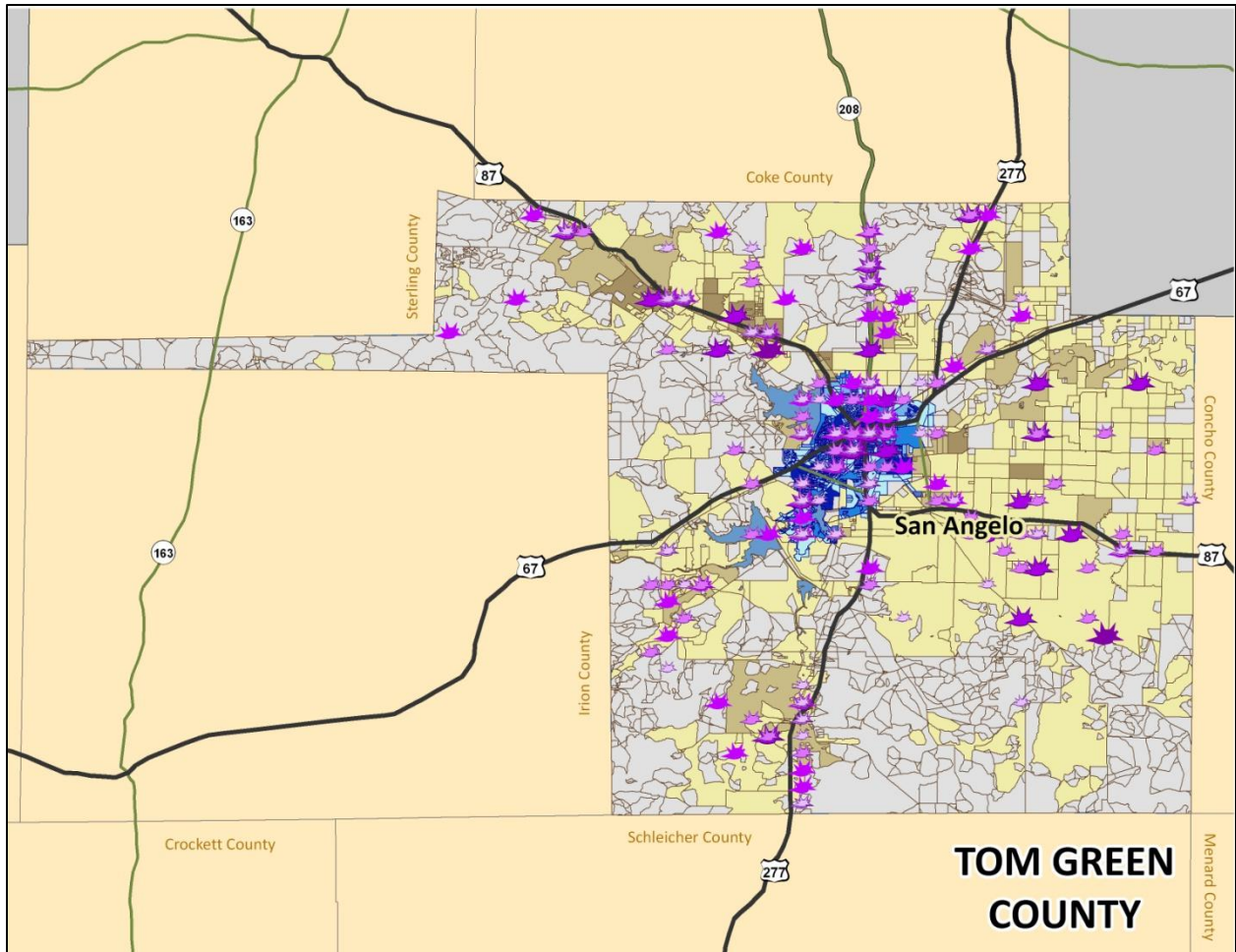
¹¹ Source: NOAA/NCDC Records

Figure 7-12. Historical Hail Events in Sutton County¹²



¹² Source: NOAA/NCDC Records

Figure 7-13. Historical Hail Events in Tom Green County¹³



¹³ Source: NOAA/NCDC Records

Hail

Table 7-2 below, provides a breakdown of the historical hail impacts by jurisdiction consisting of the number of events reported to the NCDC and the maximum recorded size of the hail in each area. It is important to note that only hail occurrences that have been reported have been factored into this risk assessment. However, it is likely that a high number of instances have gone unreported.

According to NCDC records, nearly 1,200 events were reported in the 60 year reporting period resulting in a frequency of return at over 20 events annually in the 12-county region. Each county averages a return period of one to two hail events per year.

Table 7-2. Historical Hail Impact by Jurisdiction

| JURISDICTION | NUMBER OF REPORTED EVENTS | MAXIMUM HAIL SIZE (INCHES) |
|--------------------------|---------------------------|----------------------------|
| Coke County | 110 | 4.25 |
| Bronte | 7 | 1.75 |
| Robert Lee | 19 | 4.25 |
| Uninc. Coke County | 84 | 4.25 |
| Concho County | 123 | 4.50 |
| Eden | 18 | 3.00 |
| Paint Rock | 17 | 2.75 |
| Uninc. Concho County | 88 | 4.50 |
| Crockett County | 64 | 3.00 |
| (No Incorporated Cities) | 64 | 3.00 |
| Irion County | 65 | 4.25 |
| Mertzon | 0 | 0 |
| Uninc. Irion County | 65 | 4.25 |
| Kimble County | 52 | 2.75 |
| Junction | 13 | 1.75 |
| Uninc. Kimble County | 39 | 2.75 |
| McCulloch County | 175 | 4.50 |
| Melvin | 5 | 1.75 |
| Uninc. McCulloch County | 170 | 4.50 |
| Menard County | 53 | 3.00 |
| Menard | 0 | 0 |
| Uninc. Menard County | 53 | 3.00 |
| Reagan County | 86 | 4.00 |
| Big Lake | 15 | 3.00 |

Hail

| JURISDICTION | NUMBER OF REPORTED EVENTS | MAXIMUM HAIL SIZE (INCHES) |
|---|---------------------------|----------------------------|
| Uninc. Reagan County | 71 | 4.00 |
| Schleicher County | 59 | 5.00 |
| Eldorado | 47 | 2.75 |
| Uninc. Schleicher County | 12 | 5.00 |
| Sterling County | 72 | 4.00 |
| Sterling City | 5 | 1.75 |
| Uninc. Sterling County | 67 | 4.00 |
| Sutton County | 45 | 2.50 |
| Sonora | 35 | 2.00 |
| Uninc. Sutton County | 10 | 2.50 |
| Tom Green County | 353 | 5.00 |
| San Angelo | 136 | 4.50 |
| Uninc. Tom Green County | 217 | 5.00 |
| TOTALS FOR STUDY AREA¹⁴ | 1,192 | 5.00 |

Significant Past Events

5 May 1993 – Tom Green County

A severe thunderstorm moved over San Angelo and pounded the city with hail larger than baseball-size. There were numerous reports of damage of vehicles, roofs, windows, and aircraft at Mathis Field. The storm damaged over 800 vehicles and nearly 1,000 roofs, mainly in the southwestern part of the city. Insurance adjusters estimated the total damage at around \$10 million. Fortunately, no injuries resulted from the storm.

4 May 2006 – Irion County

A hail swath with hail sizes ranging from golf ball to softball size hail formed and tracked across the Town of Mertzon and produced considerable damage to roofs and vehicles. Some of the larger hailstones penetrated roofs and severely damaged vehicles. A Mertzon resident was driving home when the hailstones hit her car as big as baseballs just outside of town. The large hail smashed a hole in her back windshield, punched holes in the hood, ripped the license plate off one of its screws and destroyed both side-view mirrors. At least 250 homes had roof damage.

¹⁴ Totals for the study area may include values less than \$5,000 for dollar amounts that are classified as “Negligible” in the table.

Hail

14 May 2008 – Concho County

A frontal boundary draped across West Central Texas, combined with an upper level storm system approaching from the west and a surface dry line triggered thunderstorms across the western Concho Valley and Big Country. As one supercell tracked east into Nolan County, storm spotters reported brief tornadoes. This storm continued east dropping hail the size of golf balls. Baseball size hail was reported just southeast of Abilene near the Town of Potosi. This storm continued to produce baseball size hail as it continued east into Callahan County. Another supercell developed just west of San Angelo dropping quarter size hail in Knickerbocker and at San Angelo Mathis Field. As this storm moved east, hail increased to golf ball size across Concho County. Wind gusts to 69 mph were recorded at the Brady Airport before equipment lost power. There was widespread tree and power line damage in Brady. A National Weather Service Storm Survey revealed an EF0 tornado caused damage to storage buildings, trees, and vegetation on the southeast side of Brady Lake.

Probability of Future Events

Based on the reported past history for the CVCOG Region, hail events are highly likely, meaning that an event is probable within the next year.

Vulnerability and Impact

Much of the damage inflicted by hail is to crops. Even relatively small hail can shred plants to ribbons in a matter of minutes. Vehicles, roofs of buildings and homes, and landscaping can also be damaged by hail.

On average, each county in the planning area can expect annual damages from hail events to total \$4,000 or more. Loss estimates reported over the 60 year period were adjusted for inflation to 2009 dollars, and summarized in Table 7-3.

Table 7-3. Historic Loss Estimates, 1950-2010¹⁵

| JURISDICTION | NUMBER OF REPORTED EVENTS | REPORTED LOSSES | ANNUALIZED LOSS (AL) |
|--------------------|---------------------------|----------------------|-----------------------------|
| Coke County | 110 | \$291,393,000 | \$4,918 (negligible) |
| Bronte | 7 | \$54,912,000 | \$0 |
| Robert Lee | 19 | \$70,672,000 | \$1,008 (negligible) |
| Uninc. Coke County | 84 | \$165,809,000 | \$3,910(negligible) |

¹⁵ Source: HAZUS-MH MR4 (exposure values) and NCDC (property and crop losses)

Hail

| JURISDICTION | NUMBER OF REPORTED EVENTS | REPORTED LOSSES | ANNUALIZED LOSS (AL) |
|--------------------------|---------------------------|------------------------|-----------------------------|
| Concho County | 123 | \$187,173,000 | \$2,435 (negligible) |
| Eden | 18 | \$92,364,000 | \$0 |
| Paint Rock | 17 | \$11,315,000 | \$914 (negligible) |
| Uninc. Concho County | 88 | \$73,494,000 | \$1,521 (negligible) |
| Crockett County | 64 | \$264,006,000 | \$601 (negligible) |
| (No Incorporated Cities) | | | |
| Irion County | 65 | \$112,315,000 | \$658 (negligible) |
| Mertzton | 0 | \$38,576,000 | \$0 |
| Uninc. Irion County | 65 | \$73,739,000 | \$658 (negligible) |
| Kimble County | 52 | \$345,134,000 | \$30 (negligible) |
| Junction | 13 | \$152,827,000 | \$0 |
| Uninc. Kimble County | 39 | \$195,307,000 | \$30 (negligible) |
| McCulloch County | 175 | \$459,543,000 | \$2,399 (negligible) |
| Melvin | 5 | \$8,875,000 | \$0 |
| Uninc. McCulloch County | 170 | \$450,68,000 | \$2,399 (negligible) |
| Menard County | 53 | \$148,418,000 | \$1,423 (negligible) |
| Menard | 0 | \$75,051,000 | \$0 |
| Uninc. Menard County | 53 | \$73,397,000 | \$1,423 (negligible) |
| Reagan County | 86 | \$178,789,000 | \$582 (negligible) |
| Big Lake | 15 | \$146,223,000 | \$0 |
| Uninc. Reagan County | 71 | \$27,827,743 | \$582 (negligible) |
| Schleicher County | 59 | \$163,684,000 | \$244 (negligible) |
| Eldorado | 47 | \$95,802,000 | \$244 (negligible) |
| Uninc. Schleicher County | 12 | \$66,277,606 | \$0 |
| Sterling County | 72 | \$89,092,000 | \$119 (negligible) |
| Sterling City | 5 | \$66,795,000 | \$0 |
| Uninc. Sterling County | 67 | \$18,645,655 | \$119 (negligible) |
| Sutton County | 45 | \$259,042,000 | \$2,485 (negligible) |
| Sonora | 35 | \$158,154,000 | \$2,485 (negligible) |
| Uninc. Sutton County | 10 | \$19,012,957 | \$0 |
| Tom Green County | 353 | \$6,412,709,000 | \$36,624 |
| San Angelo | 136 | \$5,615,423,000 | \$31,105 |
| Uninc. Tom Green County | 217 | \$701,041,341 | \$5,519 |

Hail

| JURISDICTION | NUMBER OF REPORTED EVENTS | REPORTED LOSSES | ANNUALIZED LOSS (AL) |
|---|---------------------------|------------------------|----------------------|
| TOTALS FOR STUDY AREA¹⁶ | 1,192 | \$8,903,862,000 | \$52,488 |

A hailstorm will have a limited impact on the CVCOG area, which would result in injuries being treatable with first aid, the shutdown of critical facilities and services for 24 hours or less, with less than ten percent of property destroyed or with major damage. Importantly, while the impact for hail may be considered limited, the entire region and assets are equally vulnerable. All existing and future buildings, facilities and populations are considered to be exposed to this hazard and could potentially be impacted.

¹⁶ Totals for the study area may include values less than \$5,000 for dollar amounts that are classified as “Negligible” in the table.

TORNADO

| | |
|---|-----------|
| HAZARD DESCRIPTION | 1 |
| LOCATION | 2 |
| EXTENT | 3 |
| HISTORICAL OCCURRENCES | 6 |
| SIGNIFICANT PAST EVENTS..... | 20 |
| PROBABILITY OF FUTURE EVENTS | 20 |
| VULNERABILITY AND IMPACT | 20 |

Hazard Description

Tornadoes are among the most violent storms on the planet. A tornado is a violently rotating column of air extending between, and in contact with, a cloud and the surface of the earth. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 miles per hour or more. In extreme cases, winds may approach 300 miles per hour. Damage paths can be in excess of one mile wide and 50 miles long.

Seasonal patterns are relevant to tornadoes. Thunderstorms form when warm, moist air collides with cooler, drier air. Since these masses tend to come together during the transition from summer to winter, most thunderstorms and resulting tornadoes occur during the spring (April through June) and fall (October through December). Warning time for tornadoes is minimal and ranges from no warning time to 30 minutes.



The most powerful tornadoes are produced by “super-cell thunderstorms.” These storms are affected by horizontal wind shears (winds moving in different directions at different altitudes) that begin to rotate the storm. This horizontal rotation can be tilted vertically by violent updrafts, and the rotation radius can shrink, forming a vertical column of very quickly swirling air. This rotating air can eventually reach the ground, forming a tornado.

Severe thunderstorms can produce tornadoes, high winds, and hail—any of which can cause extensive property damage and loss of life. Tornadoes occasionally accompany tropical storms and hurricanes that move over land. They are the most common to the right and front of the storm center path as it

Tornado

comes ashore. Tornadoes vary in terms of duration, wind speed and the toll that they take, as shown in Table 8-1.

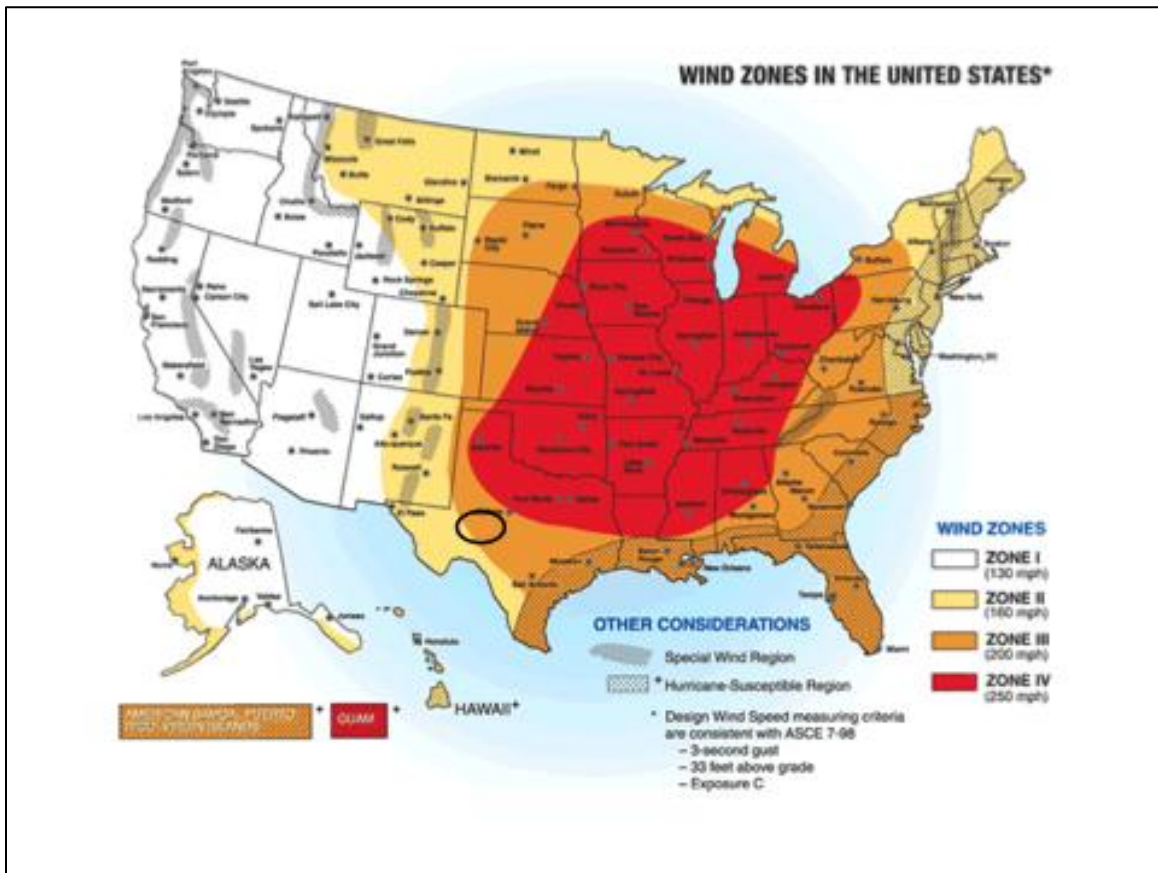
Table 8-1. Variations Among Tornadoes

| WEAK TORNADOES | STRONG TORNADOES | VIOLENT TORNADOES |
|--|---|---|
| <ul style="list-style-type: none">• 69% of all tornadoes• Less than 5% of tornado deaths• Lifetime 1-10+ minutes• Winds less than 110 mph | <ul style="list-style-type: none">• 29% of all tornadoes• Nearly 30% of all tornado deaths• May last 20 minutes or longer• Winds 110 – 205 mph | <ul style="list-style-type: none">• 2% of all tornadoes• 70% of all tornado deaths• Lifetime can exceed one hour• Winds greater than 205 mph |

Location

While historical tornado events in the planning area total 141 during the 60 year reporting period (1950 to 2010), locations of these incidents are completely random and unpredictable. The planning region is located in FEMA Wind Zones II and III; most of the region is located in Zone III, one of the most severe (Figure 8-1). The jurisdictions in the planning area experience a uniform range of intensity for a tornado as evidenced by the location and historical occurrences.

Figure 8-1. FEMA Wind Zones in the United States



Extent

A tornado is given a Fujita rating of 0-5, based on the most intense damage along its path. Wind velocities necessary to produce center damage are often associated with the Fujita category, but that practice is often misleading. The Fujita wind estimates are intended to be based upon the expected damage to a well-built residential structure. Poorly built structures can suffer significant structural damage under lesser winds than the Fujita Scale might suggest. Commercial properties may or may not experience the same failures under high wind speeds as residential property. Thus, the Fujita scale is largely a residential scale, with much more care required in assessment after wind damage to a commercial structure. A wider range of construction techniques and materials can be found in a building section classified as commercial. For example, a concrete/steel reinforced building is much more durable than a typical community convenience store, yet both may be considered commercial in city land use/appraisal data sets.







Table 8-2. The Fujita Tornado Scale¹

| F-SCALE NUMBER | INTENSITY | WIND SPEED (MPH) | TYPE OF DAMAGE DONE | PERCENT OF APPRAISED STRUCTURE VALUE LOST DUE TO DAMAGE |
|-----------------------|---------------------|-------------------------|--|--|
| F0 | Gale Tornado | 40 – 72 | Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages sign boards. | None Estimated |
| F1 | Moderate Tornado | 73 – 112 | The lower limit is the beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off roads; attached garages may be destroyed. | 0% – 20% |
| F2 | Significant Tornado | 113 – 157 | Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated. | 50% – 100% |
| F3 | Severe Tornado | 158 – 206 | Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted. | 100% |
| F4 | Devastating Tornado | 207 – 260 | Well-constructed homes leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated. | 100% |
| F5 | Incredible Tornado | 261 – 318 | Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles flying through the air in excess of 330 yards; trees debarked; steel reinforced concrete badly damaged. | 100% |

Since February 2007, the Fujita Scale (above) has been replaced by the Enhanced Fujita Scale (Table8-3 below), which retains the same basic design as its predecessor with six strength categories. The newer scale reflects more refined assessments of tornado damage surveys, standardization, and damage consideration to a wider range of structures.

¹ Source: <http://www.tornadoproject.com/fscale/fscale.htm>

Table 8-3. Enhanced Fujita Scale for Tornadoes

| STORM CATEGORY | DAMAGE LEVEL | 3 SECOND GUST (MPH) | DESCRIPTION OF DAMAGES | PHOTO EXAMPLE |
|----------------|--------------|---------------------|--|---|
| EF0 | Gale | 65 – 85 | Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages sign boards. |  |
| EF1 | Weak | 86 – 110 | The lower limit is the beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off roads; attached garages may be destroyed. |  |
| EF2 | Strong | 111 – 135 | Considerable damage; roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated. |  |
| EF3 | Severe | 136 – 165 | Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted. |  |
| EF4 | Devastating | 166 – 200 | Well-constructed homes leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated. |  |
| EF5 | Incredible | 200+ | Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles flying through the air in excess of 330 yards; trees debarked; steel reinforced concrete badly damaged. |  |

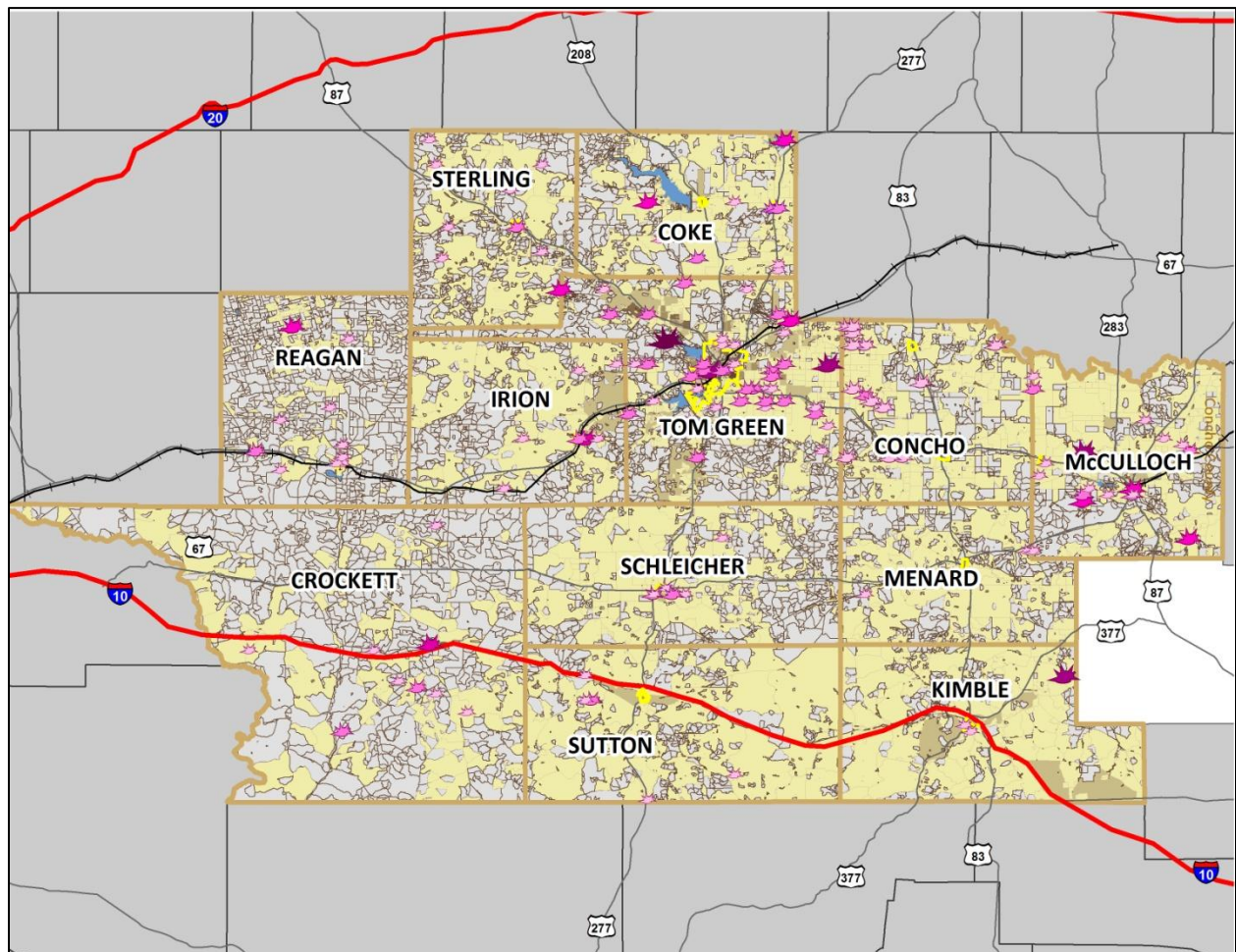
Both the Fujita Scale and Enhanced Fujita Scale should be referenced in reviewing previous occurrences as tornado events prior to 2007 will follow the original Fujita Scale.

Based on the geographic location of the Concho Valley planning area on the US Wind Speed Map, the range of intensity that the planning area can expect from a tornado can range from as low as an EF0, with gusts up to 85 miles per hour, to an EF5, which is an incredible storm with winds over 200 miles per hour. On average, a tornado to be mitigated for each jurisdiction could have winds up to 165 miles per hour, an EF3 from the Enhanced Fujita Scale.

Historical Occurrences

Historical evidence shows that most of the area is vulnerable to tornadic activity. This hazard can result from severe thunderstorm activity basin wide. Figure 8-2 presents a map of historical tornadoes that hit the study region based on information obtained from NOAA and Figures 8-3 to 8-14 provide an illustration of occurrences per county. Table 8-4 following the maps summarizes aggregated historical information by jurisdiction from the National Climatic Data Center (NCDC).

Figure 8-2. Spatial Historical Tornado Events, 1950–2010²



² Source: NOAA Records

Figure 8-3. Historical Tornado Events in Coke County

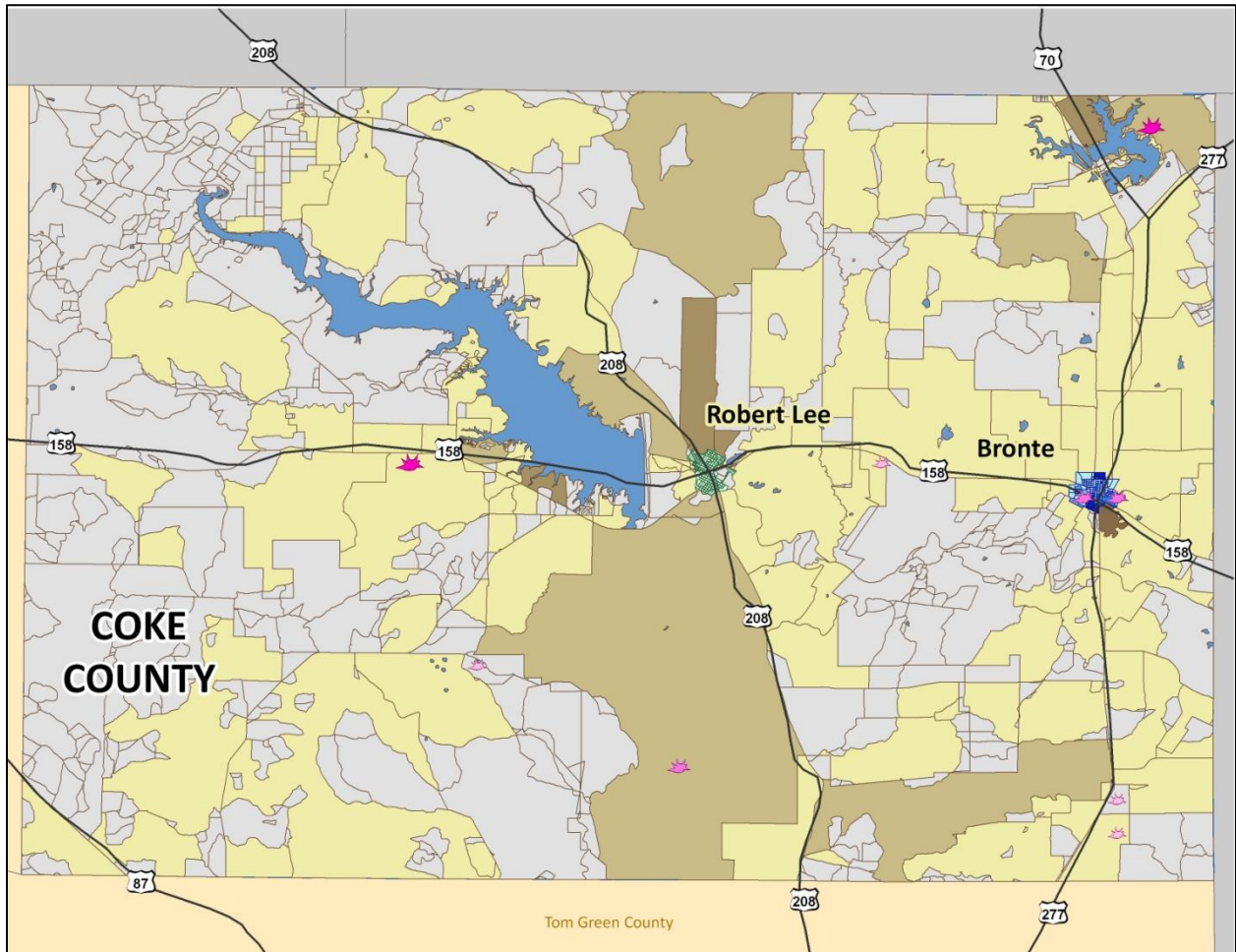


Figure 8-4. Historical Tornado Events in Concho County

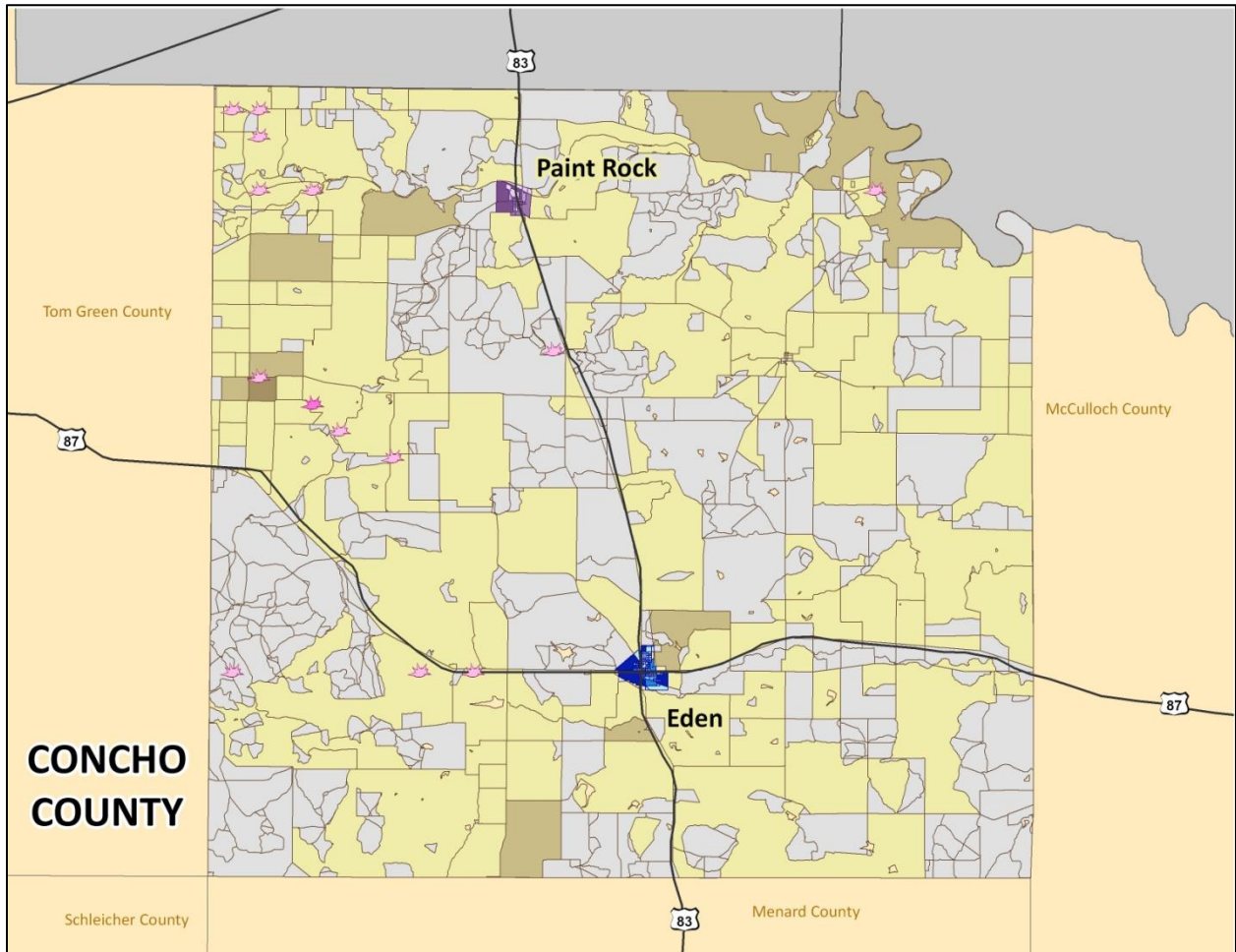


Figure 8-5. Historical Tornado Events in Crockett County

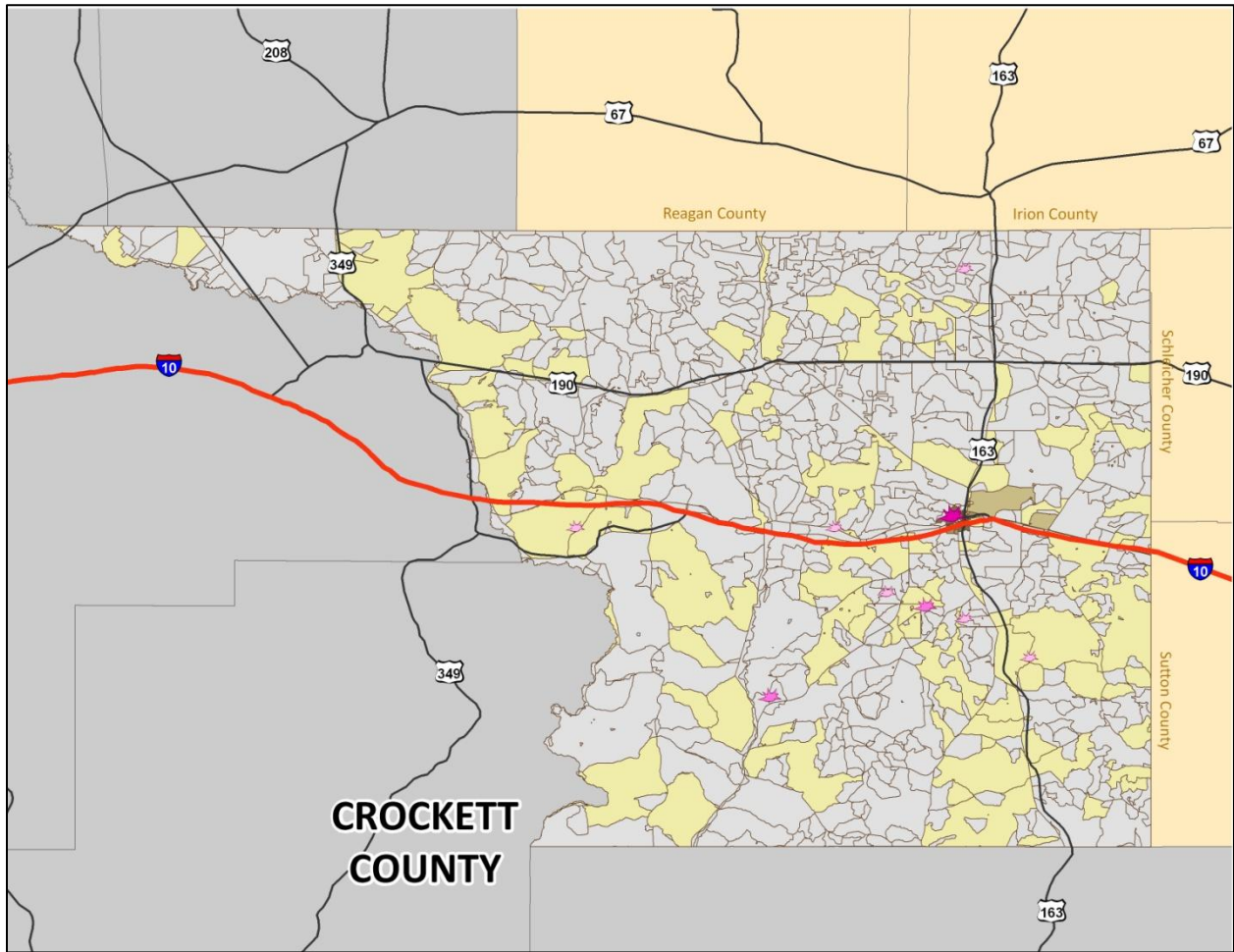


Figure 8-6. Historical Tornado Events in Irion County

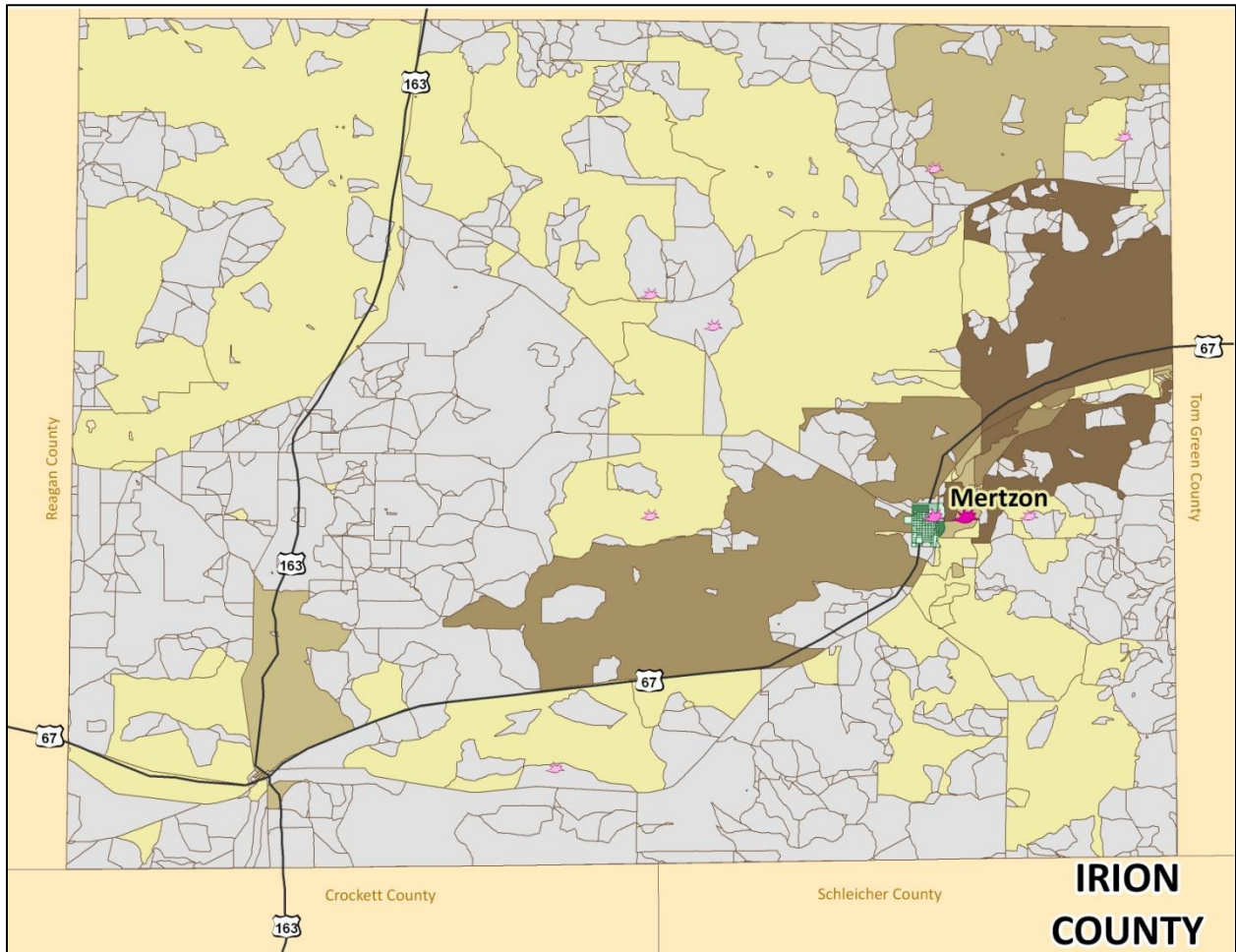


Figure 8-7. Historical Tornado Events in Kimble County

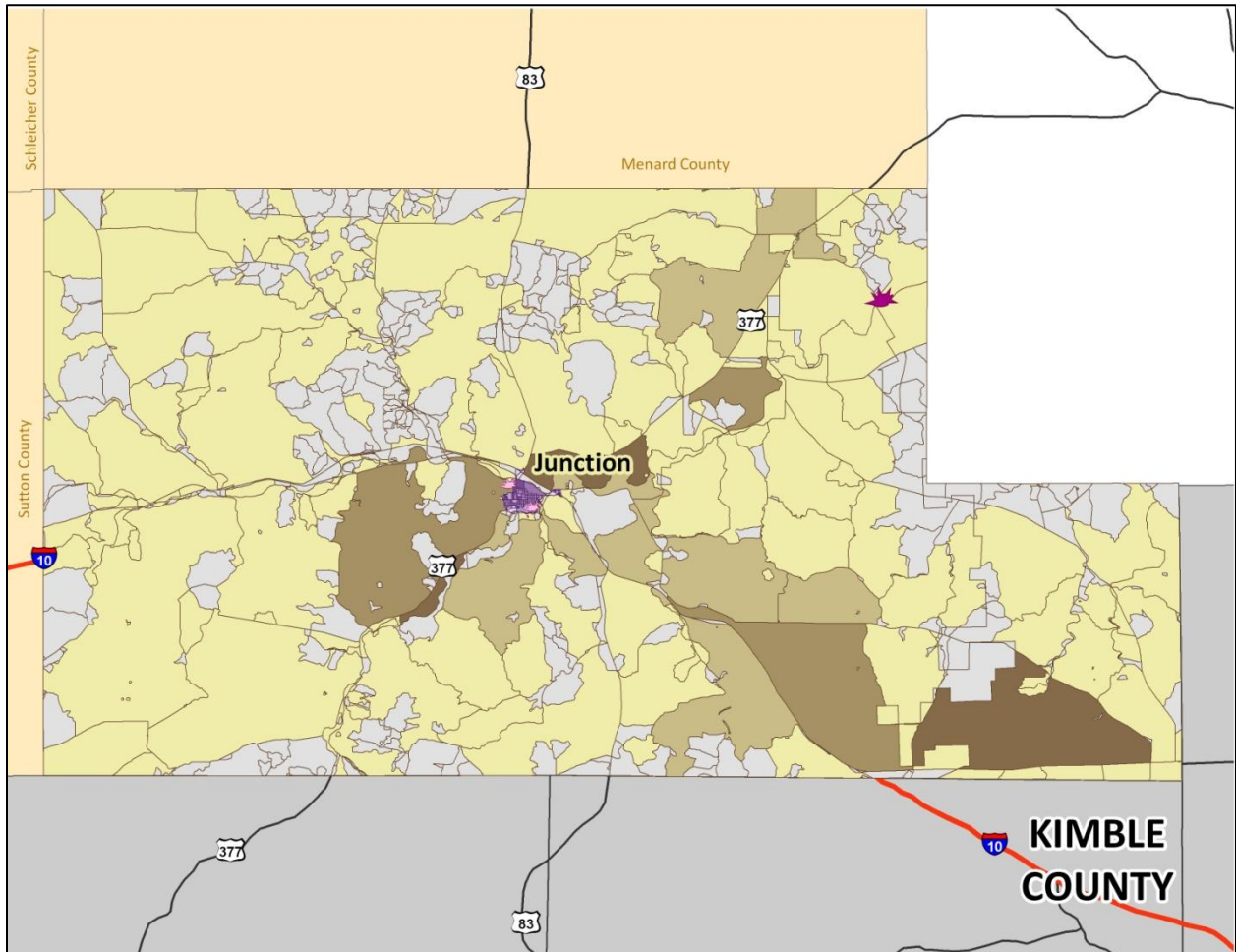


Figure 8-8. Historical Tornado Events in McCulloch County

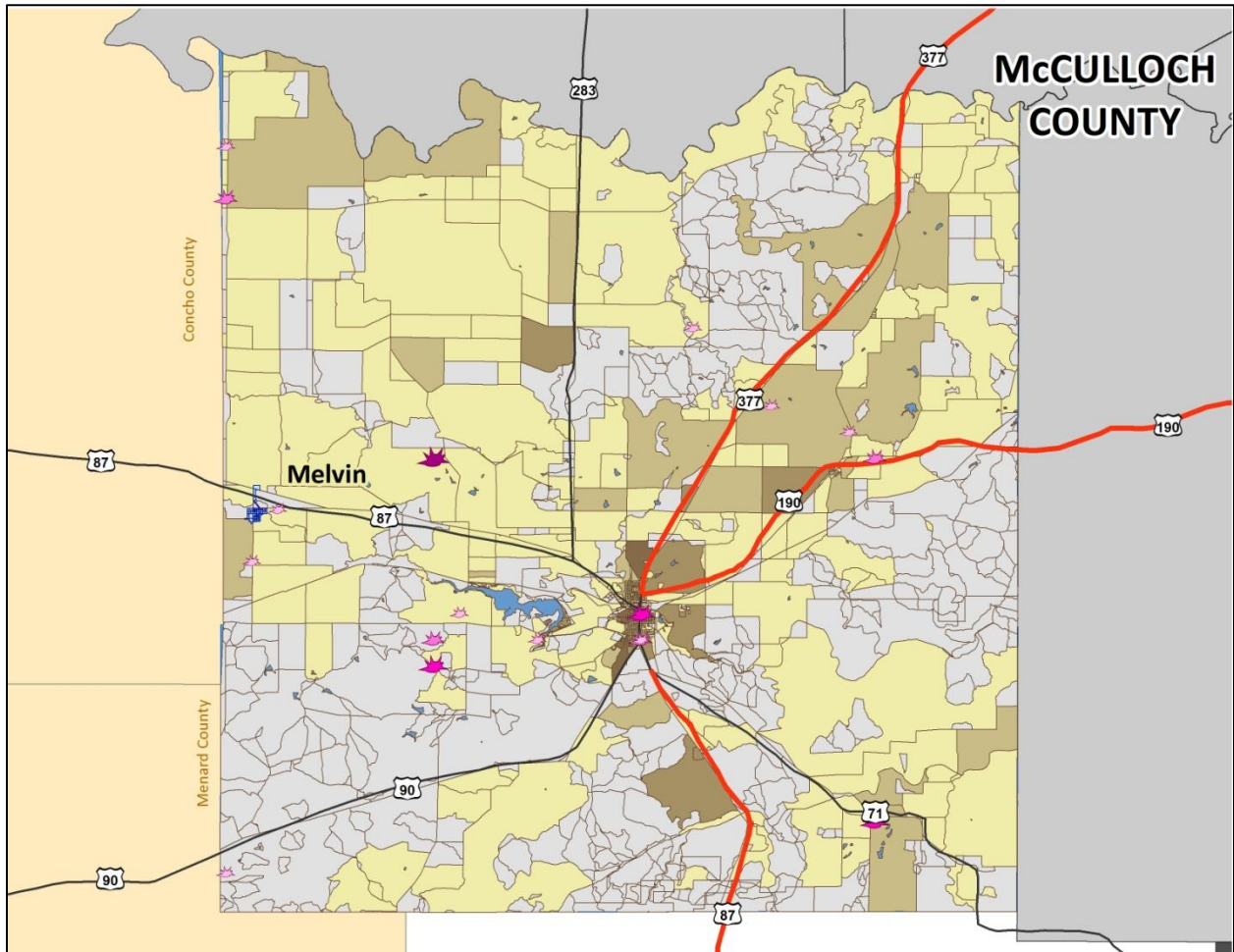


Figure 8-9. Historical Tornado Events in Menard County

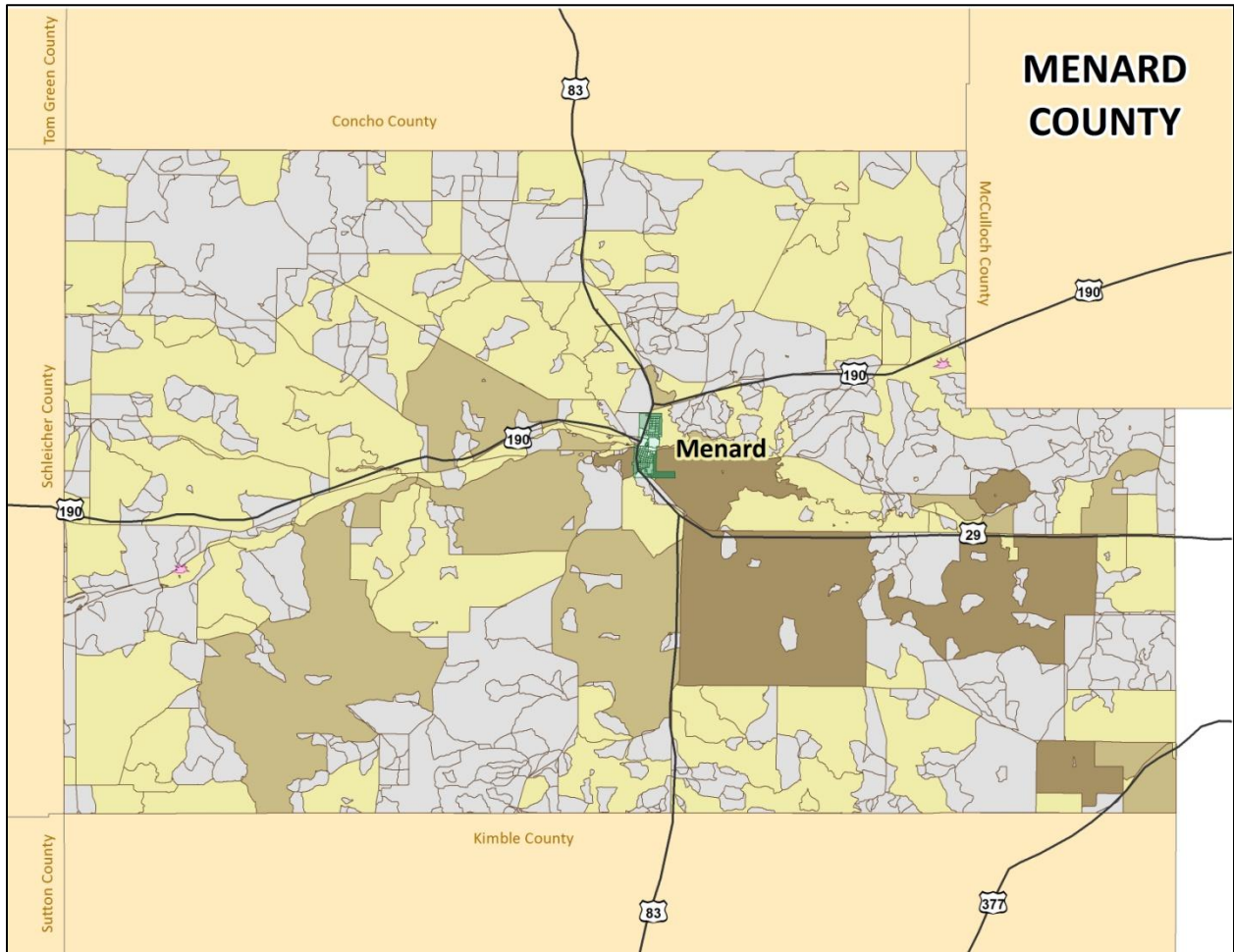


Figure 8-10. Historical Tornado Events in Reagan County

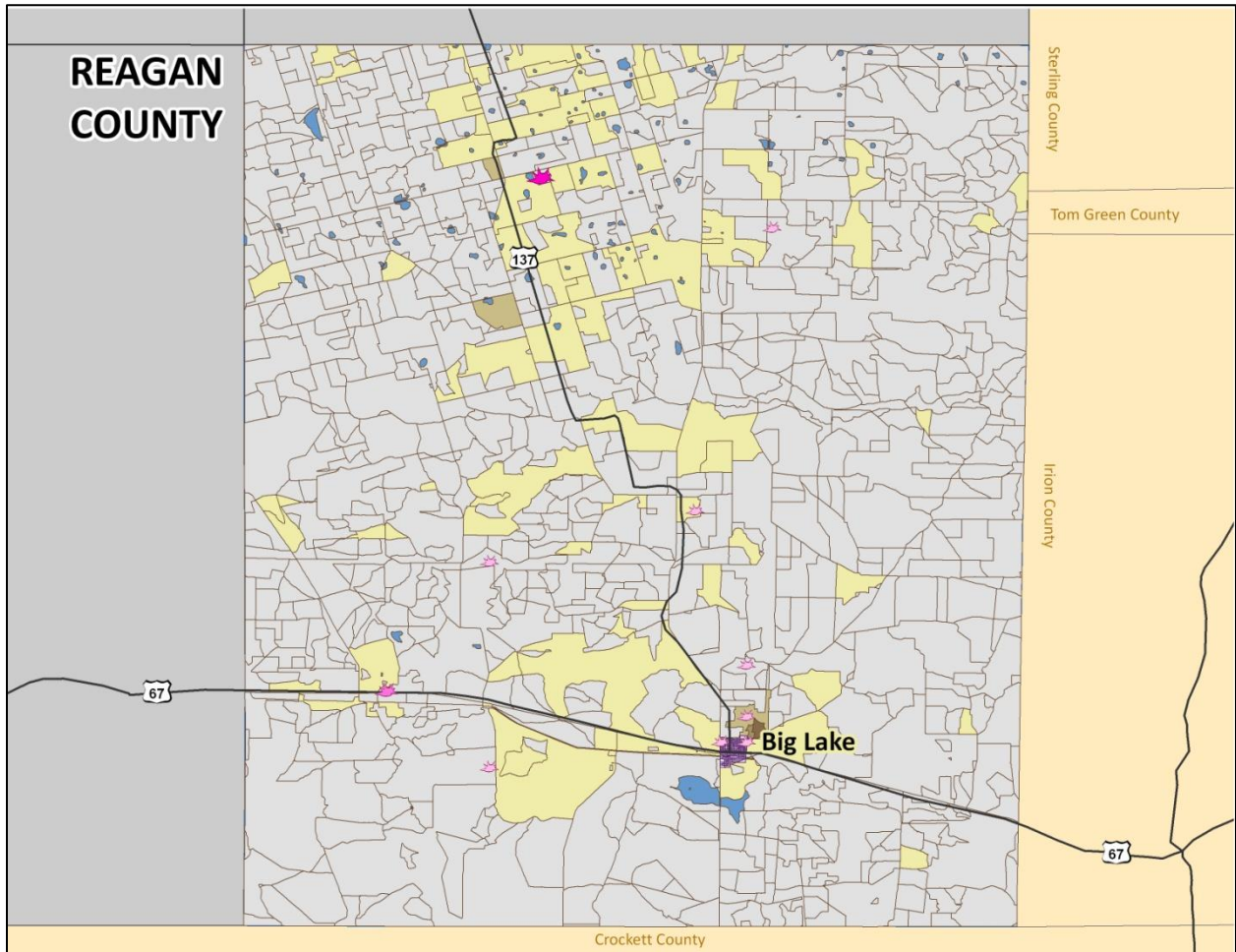


Figure 8-11. Historical Tornado Events in Schleicher County

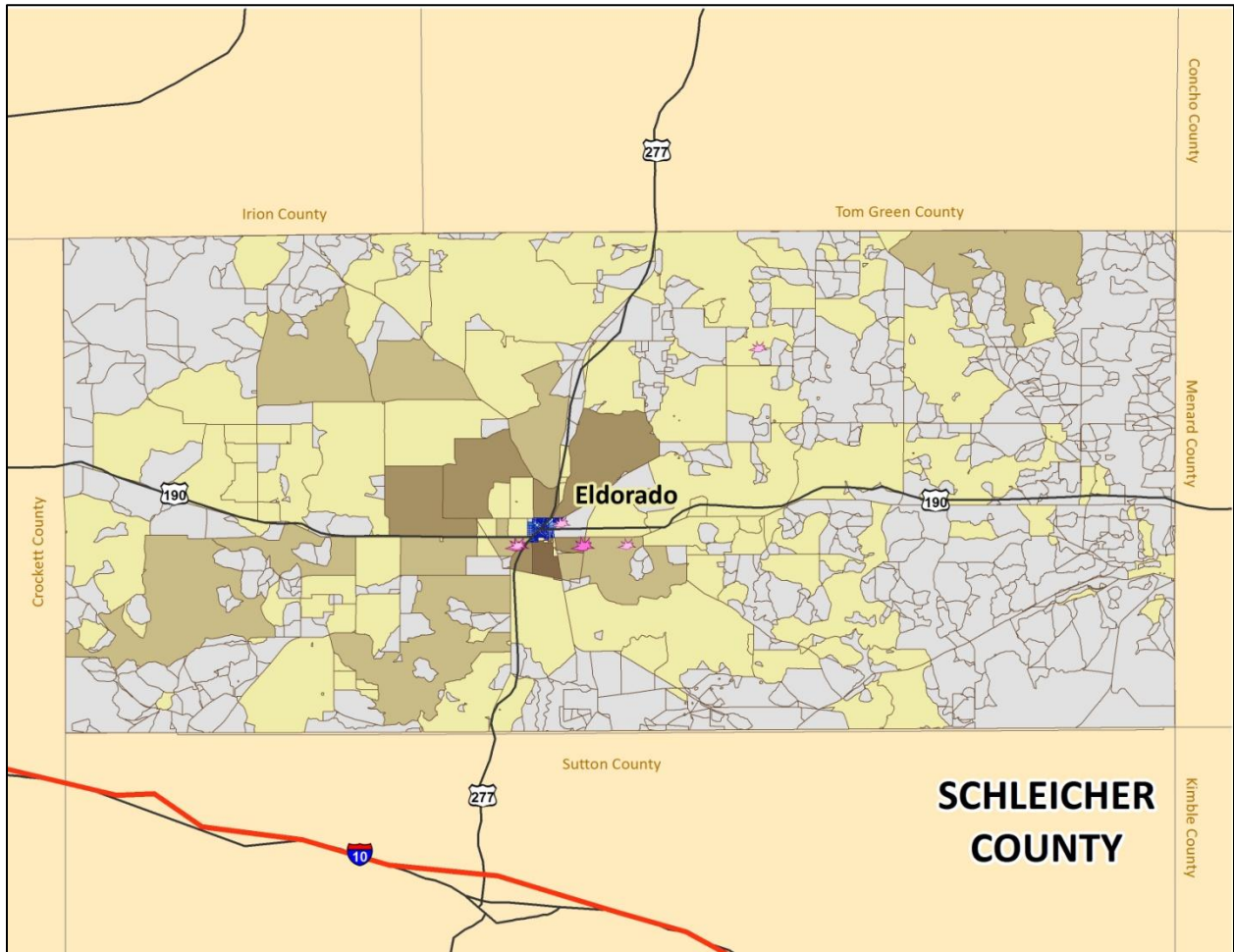


Figure 8-12. Historical Tornado Events in Sterling County

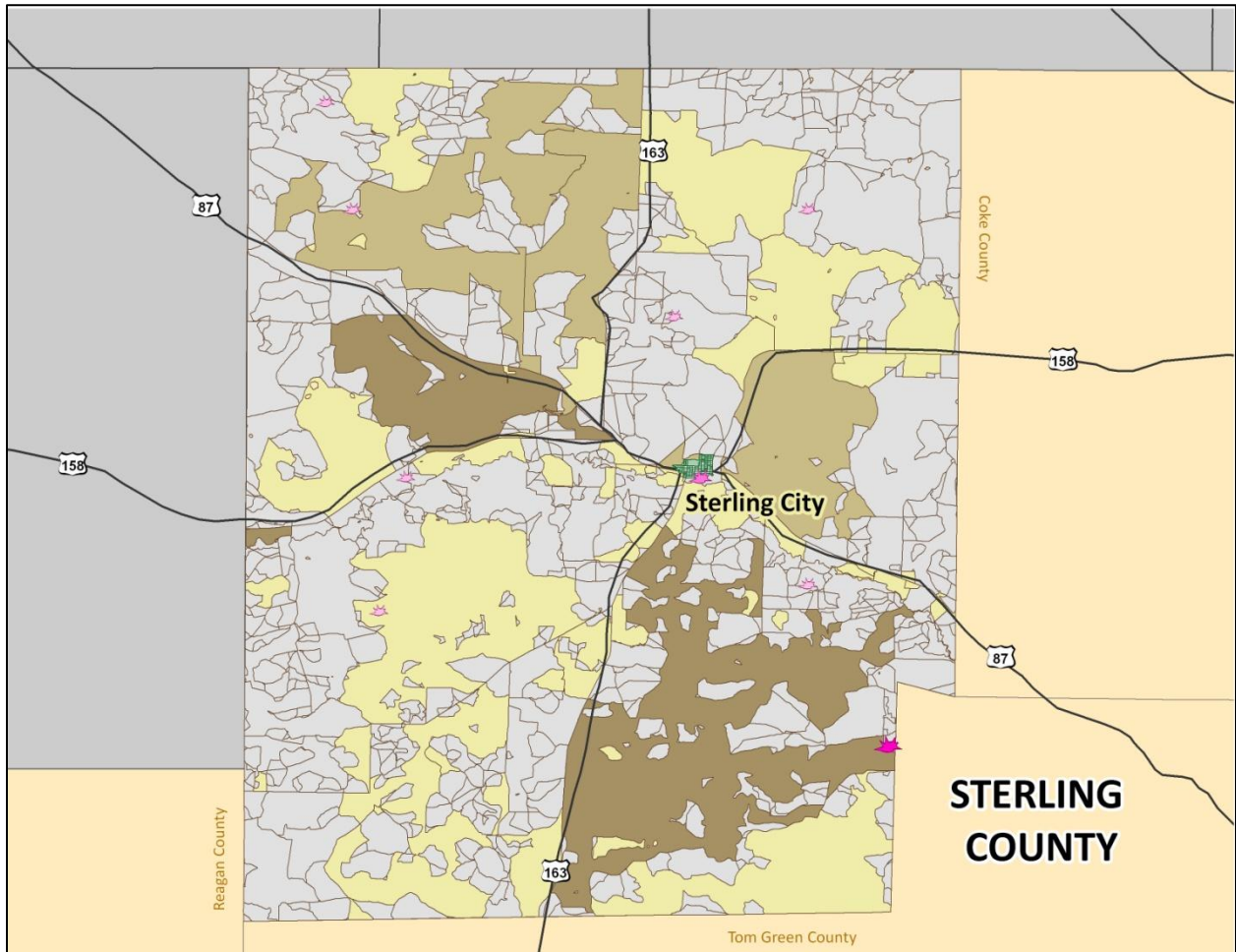


Figure 8-13. Historical Tornado Events in Sutton County

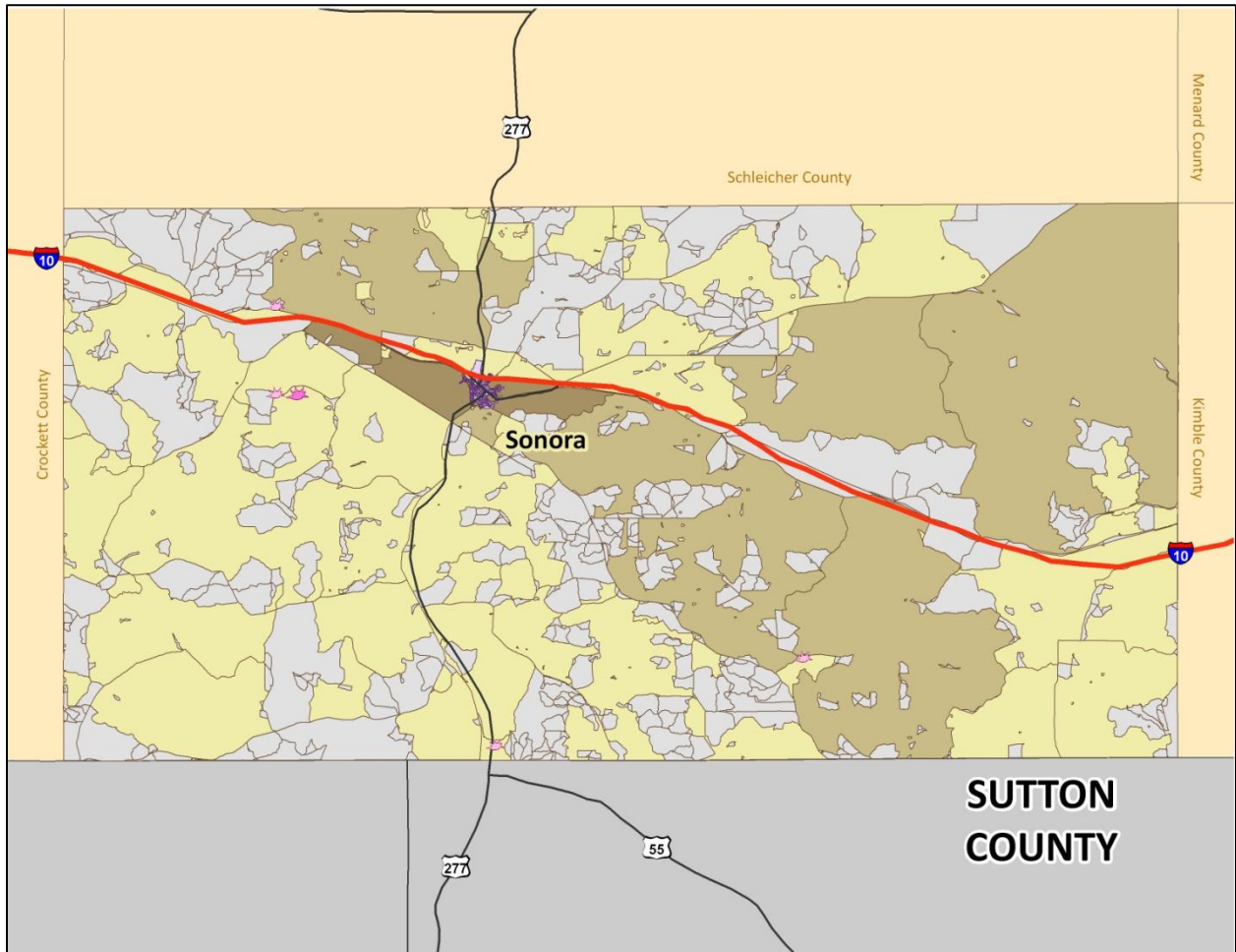
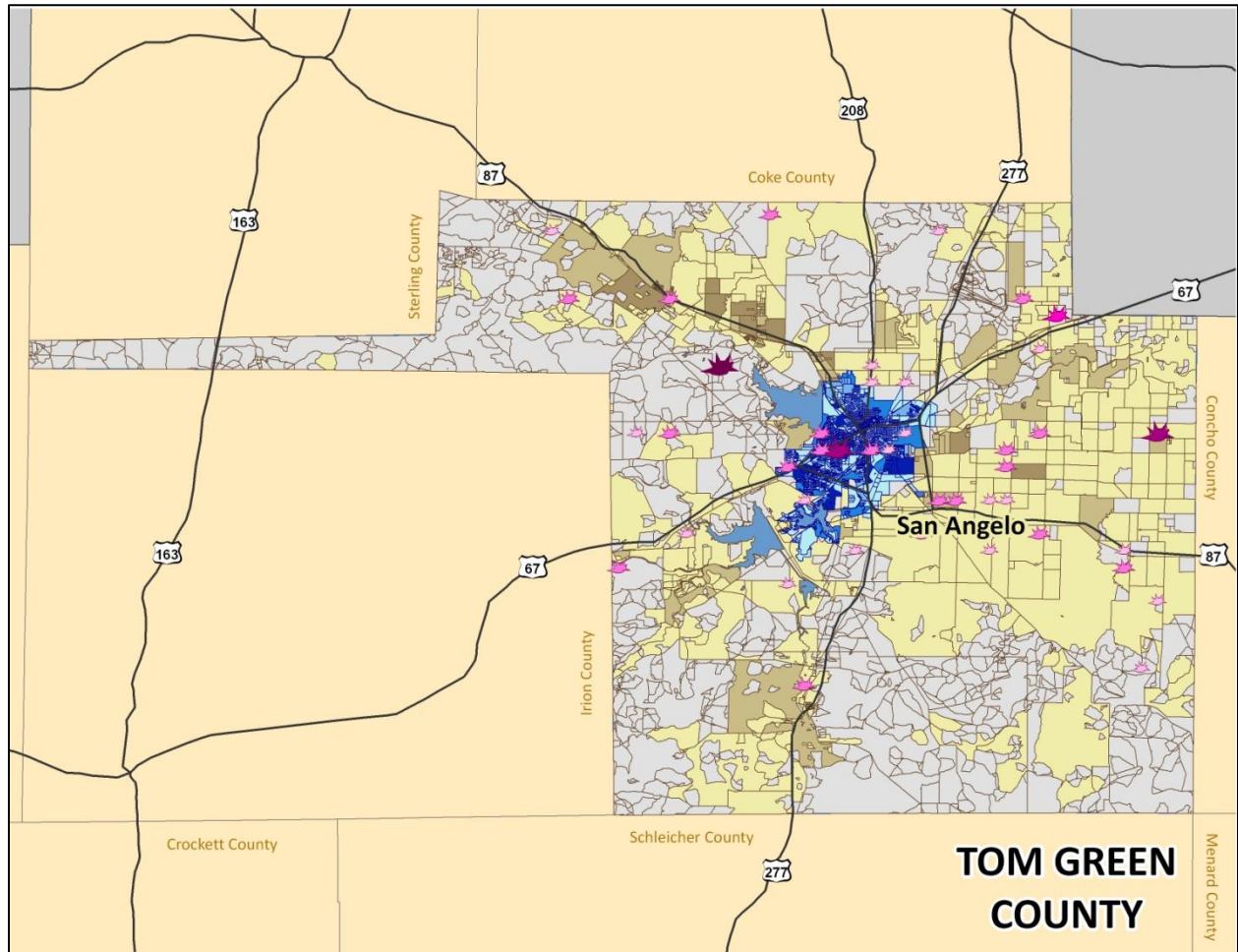


Figure 8-14. Historical Tornado Events in Tom Green County



Tornado

Historical occurrences provide a basis from which a frequency of return can be determined. Based on reported historical occurrences, the planning area can expect a tornado event to occur anywhere in the region as frequently as 2 tornado events per year within the 12-county planning area.

Table 8-4. Overall Historical Tornado Impact by Jurisdiction

| JURISDICTION | NUMBER OF EVENTS | MAGNITUDE (FUJITA SCALE) | | | | | | MAXIMUM F SCALE |
|--------------------------|------------------|--------------------------|----------|----------|----------|----|----|-----------------|
| | | F0 | F1 | F2 | F3 | F4 | F5 | |
| Coke County | 9 | 4 | 3 | 2 | | | | F2 |
| Bronte | 1 | | 1 | | | | | F1 |
| Robert Lee | 2 | 2 | | | | | | F0 |
| Uninc. Coke County | 6 | 2 | 2 | 2 | | | | F2 |
| Concho County | 18 | 16 | 2 | | | | | F1 |
| Eden | 4 | 4 | | | | | | F0 |
| Paint Rock | 1 | 1 | | | | | | F0 |
| Uninc. Concho County | 13 | 11 | 2 | | | | | F1 |
| Crockett County | 9 | 6 | 2 | 1 | | | | F2 |
| (No Incorporated Cities) | 9 | 6 | 2 | 1 | | | | F2 |
| Irion County | 9 | 7 | 1 | 1 | | | | F2 |
| Mertzton | 6 | 5 | 1 | | | | | F1 |
| Uninc. Irion County | 3 | 2 | | 1 | | | | F2 |
| Kimble County | 3 | 2 | | | 1 | | | F3 |
| Junction | 1 | 1 | | | | | | F0 |
| Uninc. Kimble County | 2 | 1 | | | 1 | | | F3 |
| McCulloch County | 20 | 12 | 4 | 3 | 1 | | | F3 |
| Melvin | 1 | 1 | | | | | | F0 |
| Uninc. McCulloch County | 19 | 11 | 4 | 3 | 1 | | | F3 |
| Menard County | 2 | 2 | | | | | | F0 |
| Menard | 0 | | | | | | | |
| Uninc. Menard County | 2 | 2 | | | | | | F0 |
| Reagan County | 10 | 8 | 1 | 1 | | | | F2 |
| Big Lake | 0 | | | | | | | |
| Uninc. Reagan County | 10 | 8 | 1 | 1 | | | | F2 |
| Schleicher County | 7 | 3 | 4 | | | | | F2 |
| Eldorado | 6 | 2 | 4 | | | | | F1 |
| Uninc. Schleicher County | 1 | 1 | | | | | | F0 |
| Sterling County | 11 | 7 | 3 | 1 | | | | F2 |

| JURISDICTION | NUMBER OF EVENTS | MAGNITUDE (FUJITA SCALE) | | | | | | MAXIMUM F SCALE |
|------------------------------|------------------|--------------------------|-----------|-----------|----------|----------|----------|-----------------|
| | | F0 | F1 | F2 | F3 | F4 | F5 | |
| Sterling City | 6 | 6 | | | | | | F0 |
| Uninc. Sterling County | 5 | 1 | 3 | 1 | | | | F2 |
| Sutton County | 5 | 4 | 1 | | | | | F1 |
| Sonora | 4 | 4 | | | | | | F0 |
| Uninc. Sutton County | 1 | | 1 | | | | | F1 |
| Tom Green County | 38 | 14 | 20 | 1 | 2 | 1 | | F4 |
| San Angelo | 8 | 5 | 3 | | | | | F1 |
| Uninc. Tom Green County | 30 | 9 | 17 | 1 | 2 | 1 | | F4 |
| TOTALS FOR STUDY AREA | 141 | 85 | 41 | 10 | 4 | 1 | 0 | F4 |

Significant Past Events

20 February 1997 – Schleicher County

A tornado that was embedded in very heavy rains destroyed four hangars and overturned an airplane at the Eldorado airport. The tornadic winds also toppled a grain silo on a farm ten miles north of Eldorado.

9 April 2008 – Tom Green County

The NSW storm survey team found a tornado track across the Houston Harte Expressway that caused severe damage to a large distribution warehouse. Also, the tornado overturned two trailers, knocked down a communication tower, utility poles, and power lines, flipped cars, damaged roofs, and road signs along the expressway. A couple of truck drivers who rode out the storm reported their tractor trailers were lifted at times during the tornado. One motorist in a smaller truck took shelter at the nearby gas station and reported being lifted up while he was in his small truck and seeing a small tornado.

Probability of Future Events

With over 140 events in the region over the reporting period, it can be expected that a frequency of return may be as high as two to three tornadoes in the CVCOG Region in any given year. It is highly likely that the planning area can expect a tornado event at least once annually.

Vulnerability and Impact

The CVCOG participating jurisdictions are uniformly exposed to wind speeds up to 160 to 200 miles per hour (EF3 tornado). All assets and population in the region are equally

Tornado

vulnerable to the tornado hazard; however more vulnerable areas may be in unincorporated areas of counties where construction codes are not enforceable.

The potential severity of damages is partially defined by historic loss and loss estimates total over \$8.9 billion for the region over the 60-year incident reporting period as shown in Table 8-5.

Table 8-5. Potential Annualized Losses by Jurisdiction³

| JURISDICTION | NUMBER OF EVENTS | TOTAL ESTIMATED EXPOSURE | ANNUALIZED LOSS (AL) |
|--------------------------|------------------|--------------------------|----------------------|
| Coke County | 9 | \$291,393,000 | \$18,881 |
| Bronte | 1 | \$54,912,000 | \$0 |
| Robert Lee | 2 | \$70,672,000 | \$0 |
| Uninc. Coke County | 6 | \$165,809,000 | \$18,881 |
| Concho County | 18 | \$187,173,000 | \$2,374 |
| Eden | 4 | \$92,364,000 | \$371 |
| Paint Rock | 1 | \$11,315,000 | \$0 |
| Uninc. Concho County | 13 | \$73,494,000 | \$2,003 |
| Crockett County | 9 | \$264,006,000 | \$15,212 |
| (No Incorporated Cities) | | | |
| Irion County | 9 | \$112,315,000 | \$0 |
| Mertzton | 6 | \$38,576,000 | \$0 |
| Uninc. Irion County | 3 | \$73,739,000 | \$0 |
| Kimble County | 3 | \$345,134,000 | \$16,205 |
| Junction | 1 | \$152,827,000 | \$0 |
| Uninc. Kimble County | 2 | \$195,307,000 | \$16,205 |
| McCulloch County | 20 | \$459,543,000 | \$127,524 |
| Melvin | 1 | \$8,875,000 | \$0 |
| Uninc. McCulloch County | 19 | \$450,668,000 | \$127,524 |
| Menard County | 2 | \$148,418,000 | \$1,144 |
| Menard | 0 | \$75,051,000 | \$0 |
| Uninc. Menard County | 2 | \$73,397,000 | \$1,144 |
| Reagan County | 10 | \$178,789,000 | \$30,144 |
| Big Lake | 0 | \$146,223,000 | \$0 |
| Uninc. Reagan County | 10 | \$27,827,743 | \$30,144 |
| Schleicher County | 7 | \$163,684,000 | \$131,841 |

³ Source: HAZUS-MH MR4 (total exposure) and NCDC (annualized losses)

Tornado

| JURISDICTION | NUMBER OF EVENTS | TOTAL ESTIMATED EXPOSURE | ANNUALIZED LOSS (AL) |
|------------------------------|------------------|--------------------------|----------------------|
| Eldorado | 6 | \$95,802,000 | \$131,841 |
| Uninc. Schleicher County | 1 | \$66,277,606 | \$0 |
| Sterling County | 11 | \$89,092,000 | \$0 |
| Sterling City | 6 | \$66,795,000 | \$0 |
| Uninc. Sterling County | 5 | \$18,645,655 | \$0 |
| Sutton County | 5 | \$259,042,000 | \$692 |
| Sonora | 4 | \$158,154,000 | \$692 |
| Uninc. Sutton County | 1 | \$19,012,957 | \$0 |
| Tom Green County | 38 | \$6,412,709,000 | \$3,204,683 |
| San Angelo | 8 | \$5,615,423,000 | \$46,706 |
| Uninc. Tom Green County | 30 | \$701,041,341 | \$3,157,977 |
| TOTALS FOR STUDY AREA | 141 | \$8,903,862,000 | \$3,548,700 |

While 141 tornado events of magnitudes F0 through F4 have impacted the planning area from 1950 to 2010; less than one tenth of one percent of assets have been destroyed or suffered major damage. Therefore, potential severity of tornado impact is limited, meaning injuries and illnesses are treatable with first aid, critical facilities would only be shut down for 24 hours or less, and less than 10 percent of property would be destroyed or suffer major damage.

WILDFIRE

| | |
|--|-----------|
| HAZARD DESCRIPTION | 1 |
| LOCATION AND HISTORICAL OCCURRENCES | 1 |
| SIGNIFICANT PAST EVENTS..... | 15 |
| EXTENT | 16 |
| PROBABILITY OF FUTURE EVENTS | 18 |
| VULNERABILITY AND IMPACT | 29 |

Hazard Description

A wildfire is an uncontrolled fire burning in an area of vegetative fuels such as grasslands, brush, or woodlands. Heavier fuels with high continuity, steep slopes, high temperatures, low humidity, low rainfall, and high winds all work to increase the risk for people and property located within wildfire hazard areas or along the urban/wildland interface. Wildfires are part of the natural management of forest ecosystems, but most are caused by human factors. Texas has seen a huge increase in the number of wildfires in the past 30 years. Years of fire suppression have significantly disturbed natural fire occurrences—nature’s renewal process. The result has been the gradual accumulation of understory and canopy fuels to levels of density that can feed high-energy, intense wildfires and further increase the hazards from and exposure to interface problems.

Location, historical occurrences and probability were determined for wildfires using data products from the Southern Wildfire Risk Assessment (SWRA) project from the Texas Forest Service (TFS). Three datasets were utilized for this section: Historic Fire Locations and Fire Occurrence Area (FOA) data were used to show location and previous occurrences; Communities at Risk to show probability; and Level of Concern (LOC) to show vulnerability.

Location and Historical Occurrences

The FOA is an area where the probability of each acre igniting is the same. The FOA data layer was developed based on historic wildfire ignition data. A FOA is defined as a fire ignition rate measured in Number of Fires divided by 1000 acres over each year.

The Texas Forest Service used Historic Fire Locations (a.k.a. Ignition Locations; Fire Events) for the years 2005 to 2006 to determine fire occurrence areas. In many situations wildfires often occur at the same location (particularly for man-caused fires). The frequency of wildfires per year is modeled to create the FOA data.

Wildfire

Figures 9-1 through 9-12 graphically illustrate the location and historical wildfire occurrence in the CVCOG Region. Where it is difficult to view on the map, the names of jurisdictions have been clarified.

Figure 9-1. Location and Historic Wildfire Events for Coke County

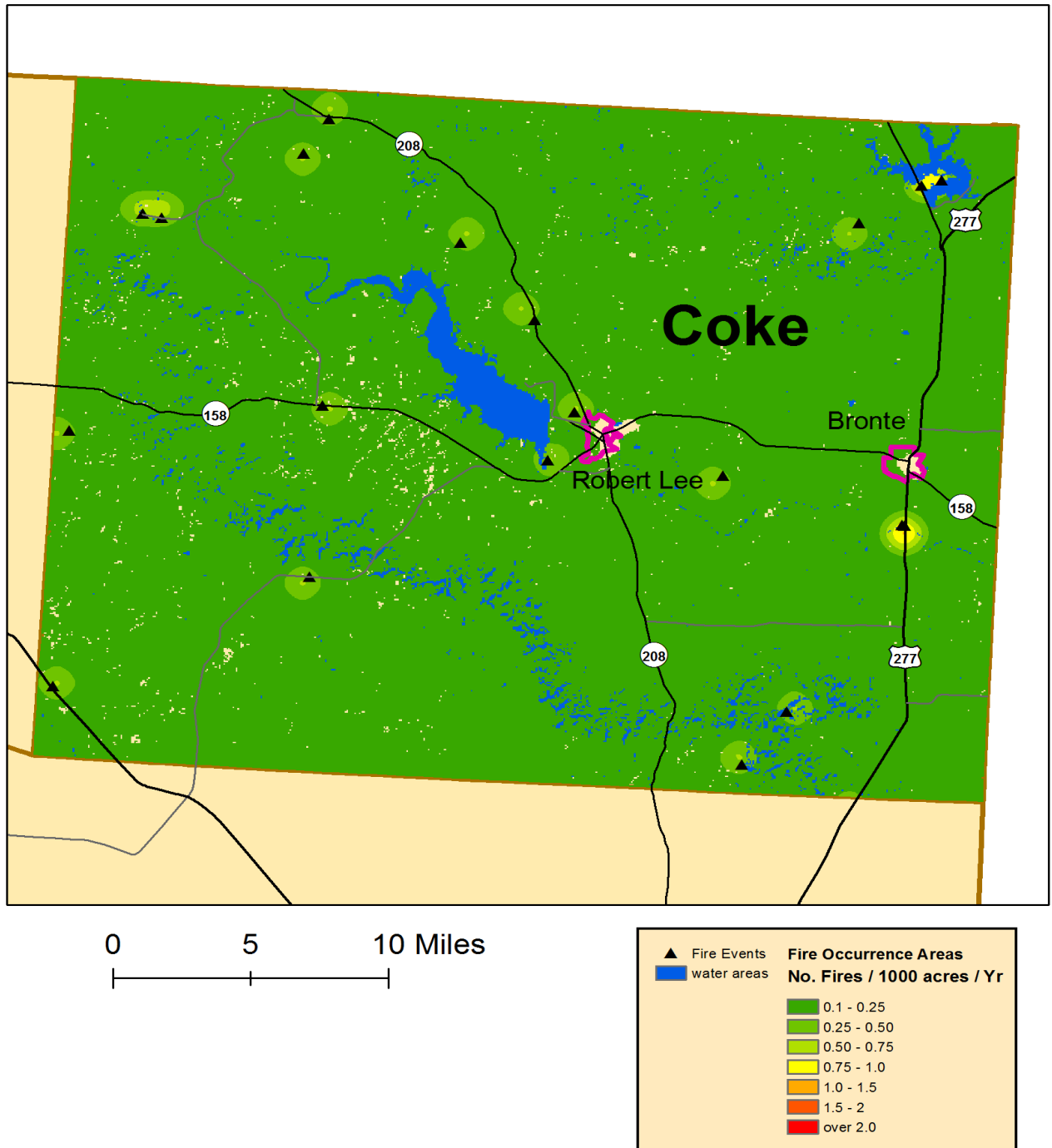


Figure 9-2. Location and Historic Wildfire Events for Concho County

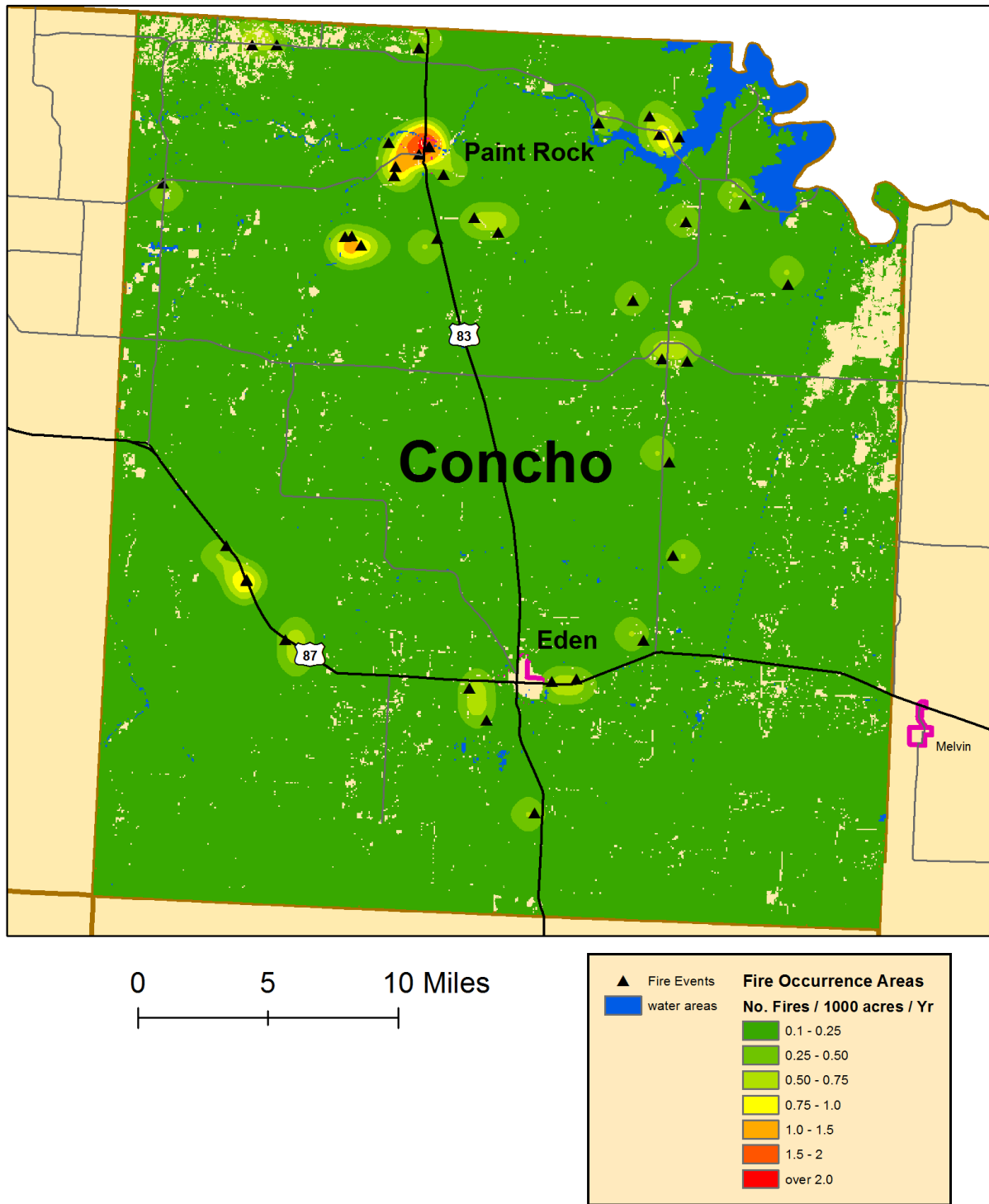
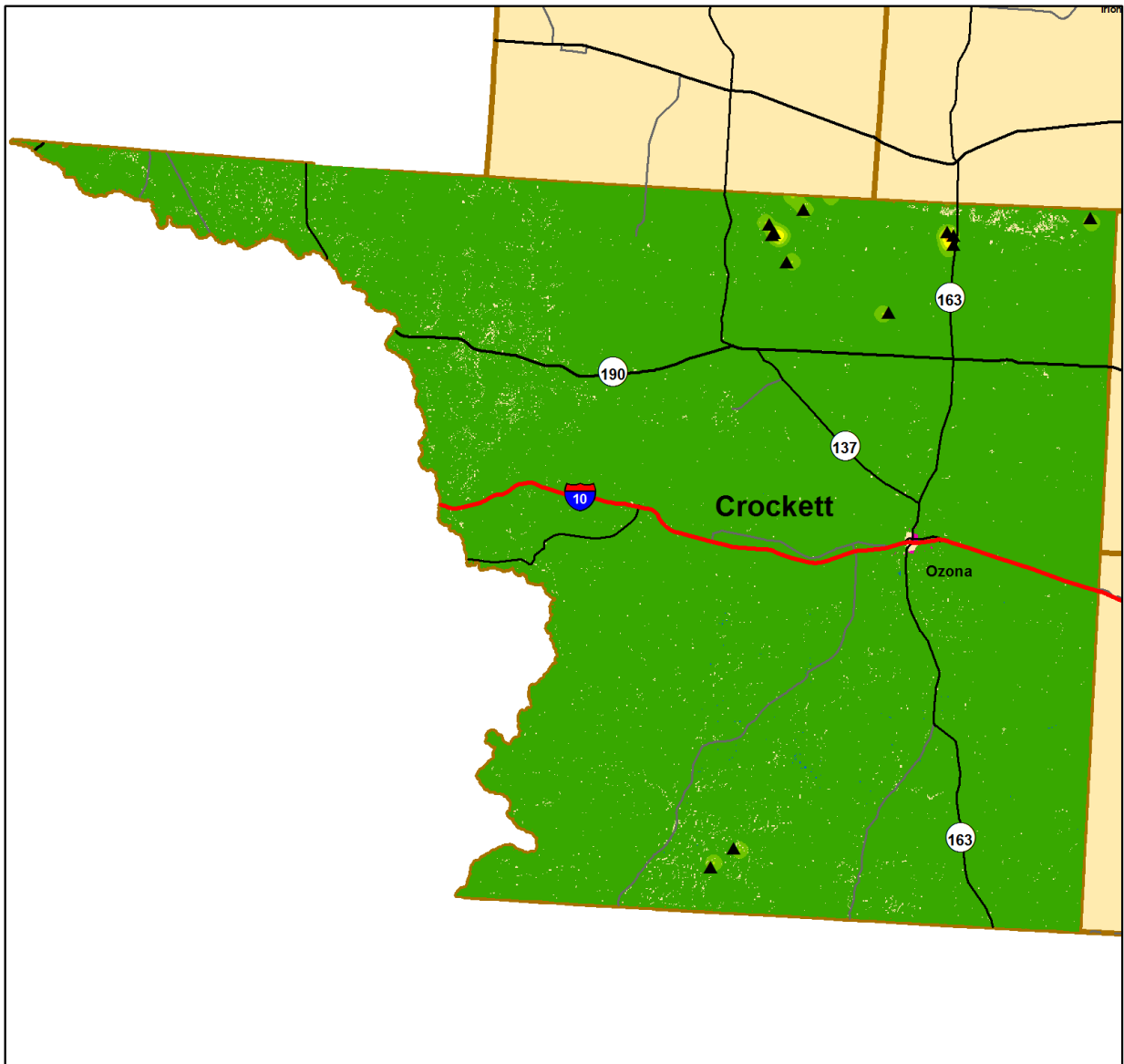
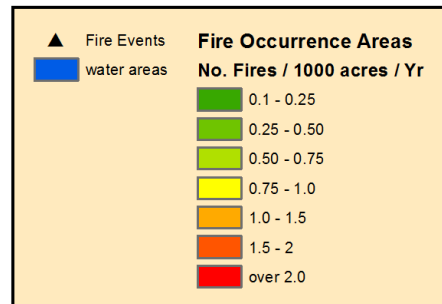


Figure 9-3. Location and Historic Wildfire Events for Crockett County¹



0 10 20 Miles



¹ Ozona is an unincorporated community in Crockett County. There are no incorporated communities.

Figure 9-4. Location and Historic Wildfire Events for Irion County

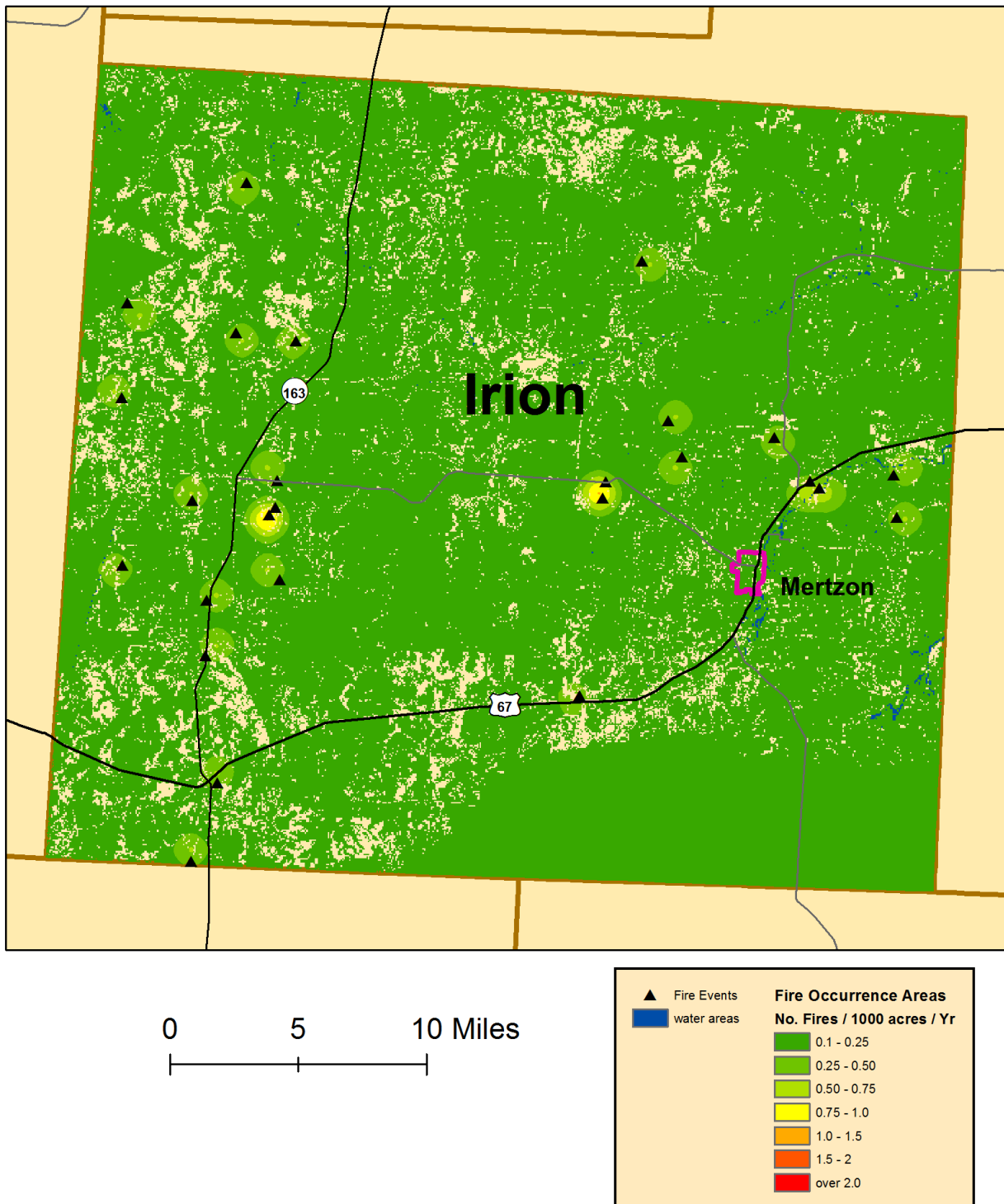
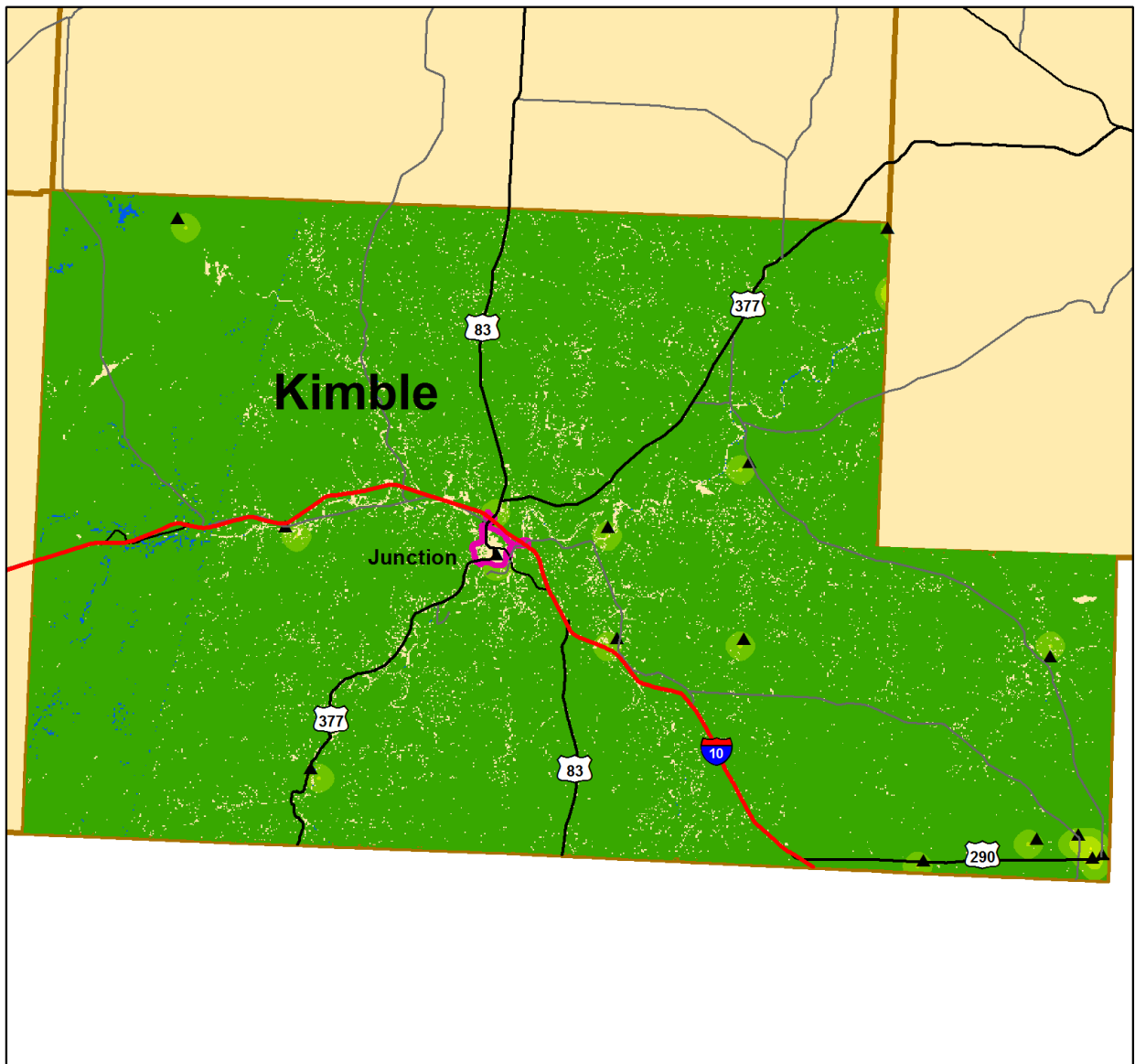


Figure 9-5. Location and Historic Wildfire Events for Kimble County



0 5 10 Miles

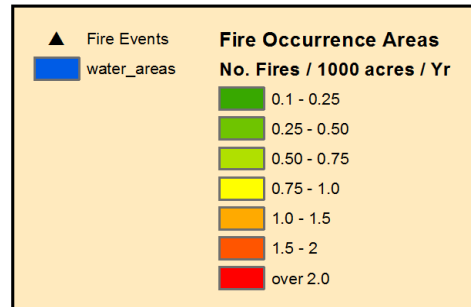


Figure 9-6. Location and Historic Wildfire Events for McCulloch County

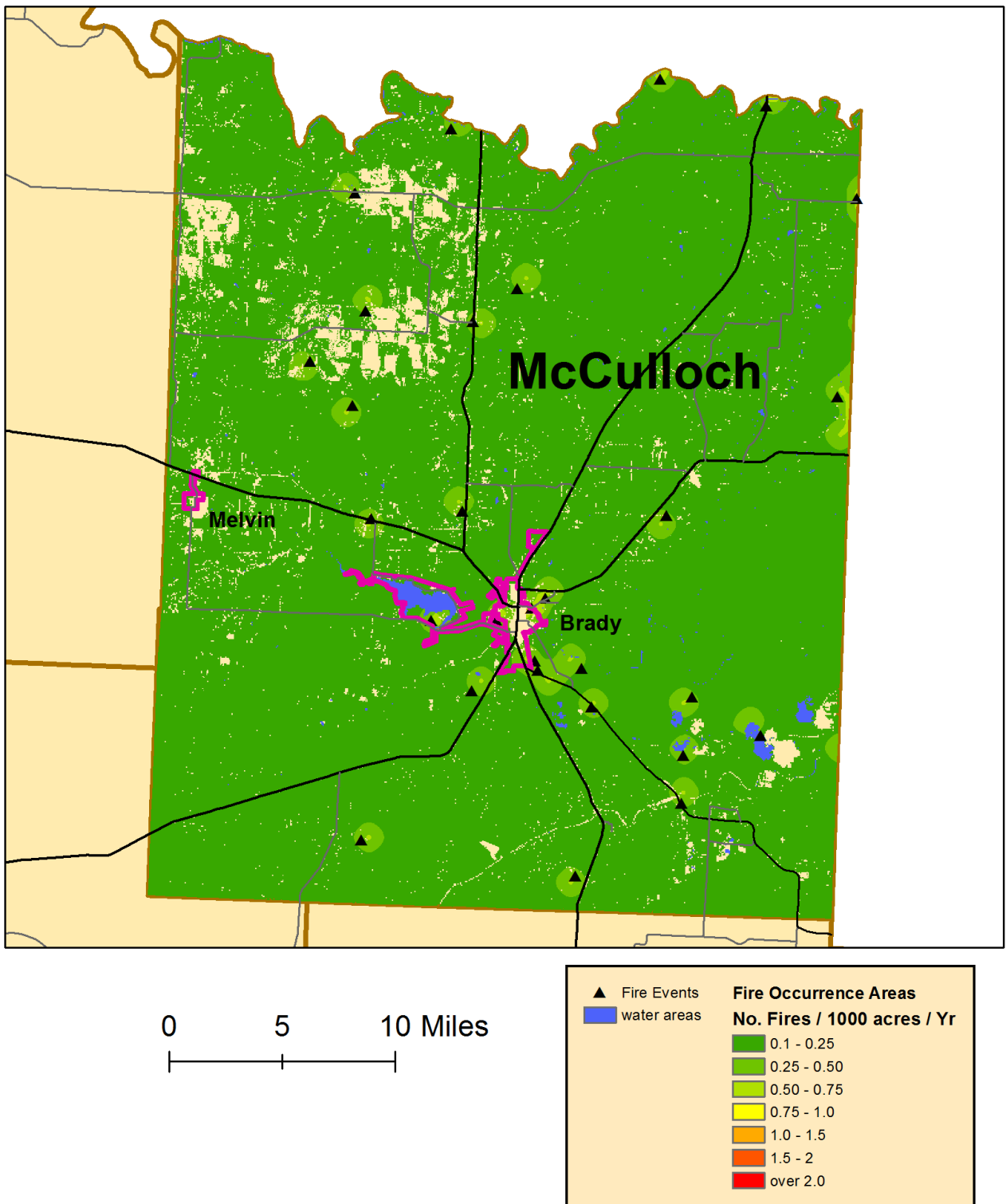


Figure 9-7. Location and Historic Wildfire Events for Menard County

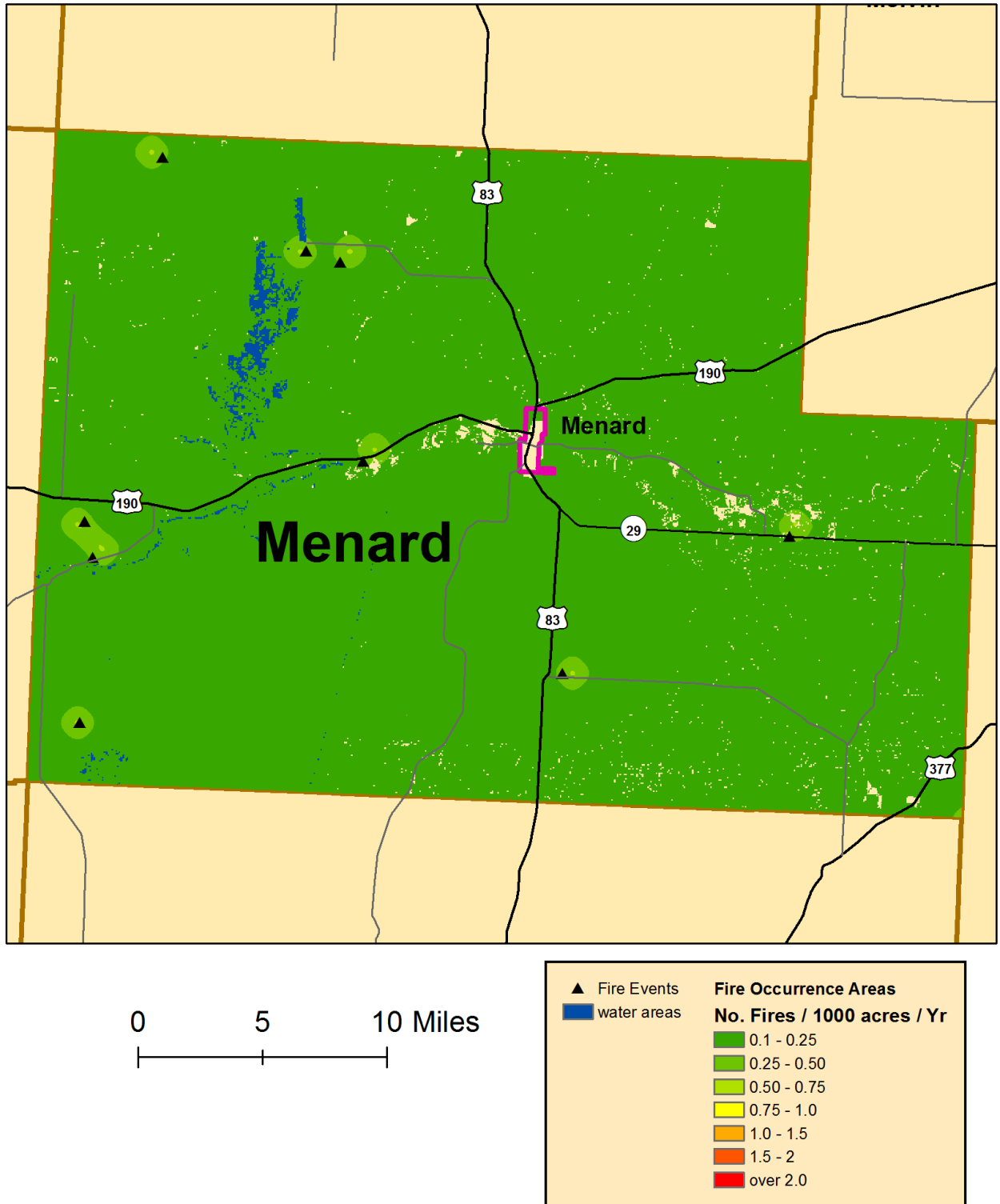


Figure 9-8. Location and Historic Wildfire Events for Reagan County

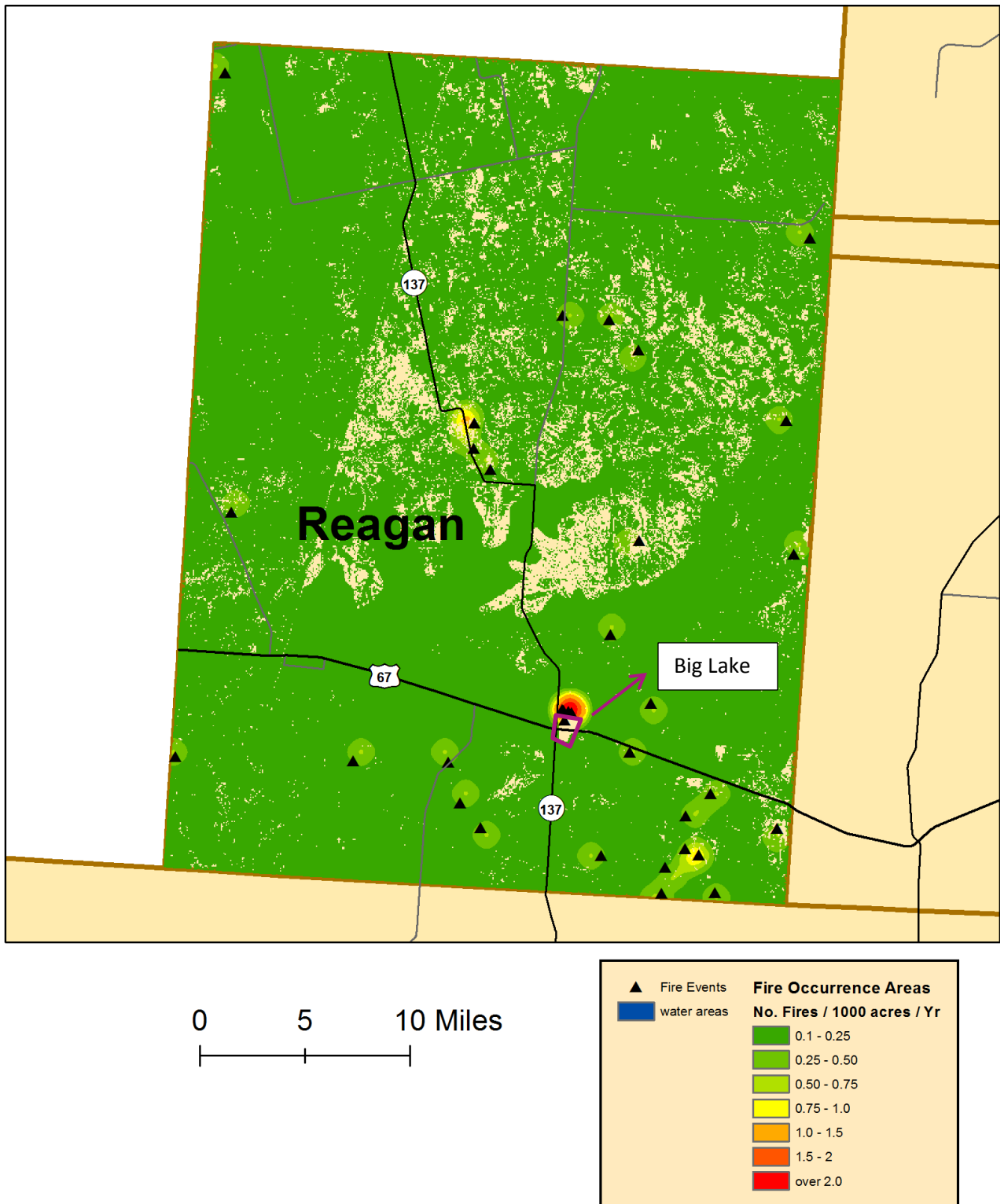


Figure 9-9. Location and Historic Wildfire Events for Schleicher County

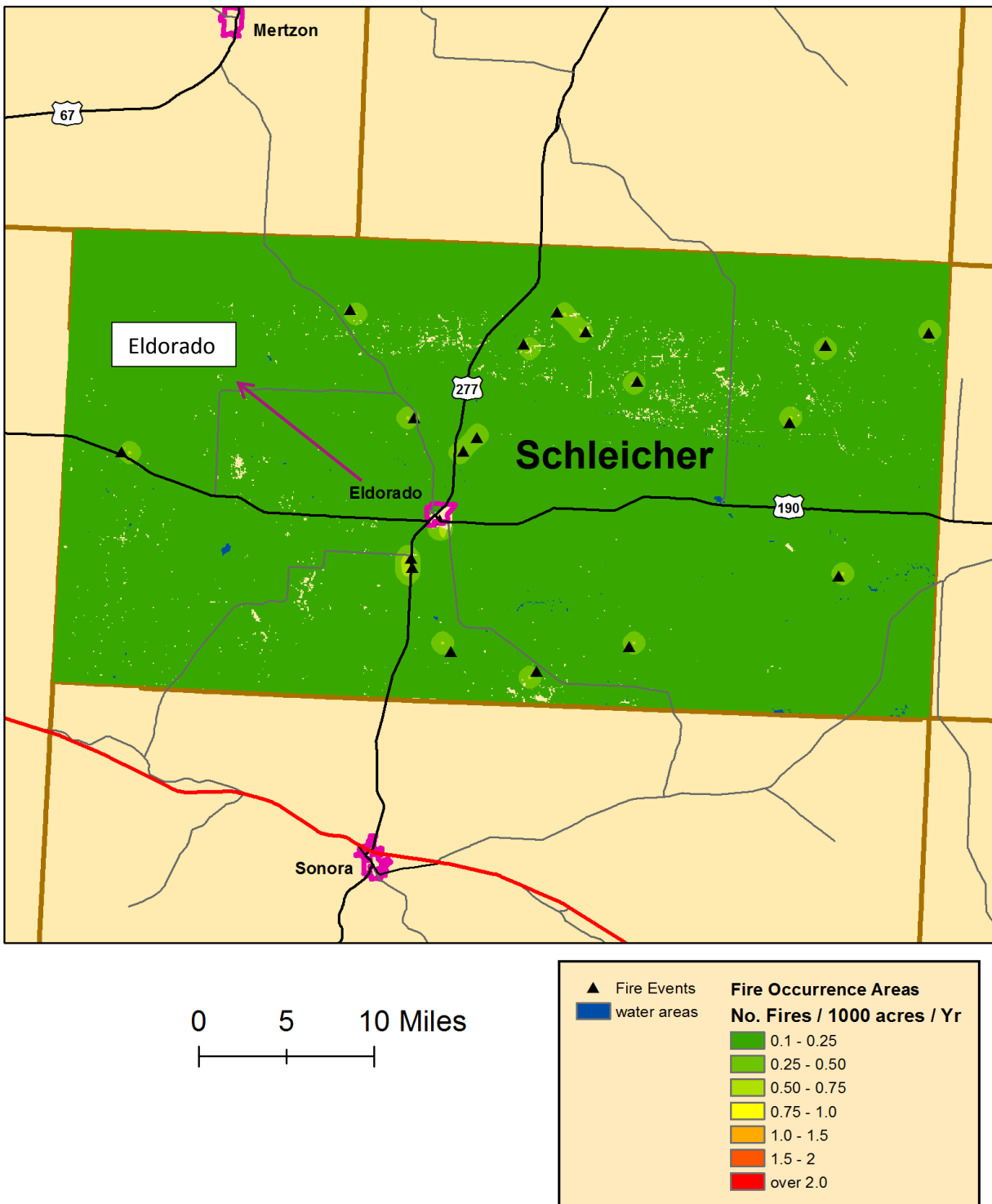


Figure 9-10. Location and Historic Wildfire Events for Sterling County

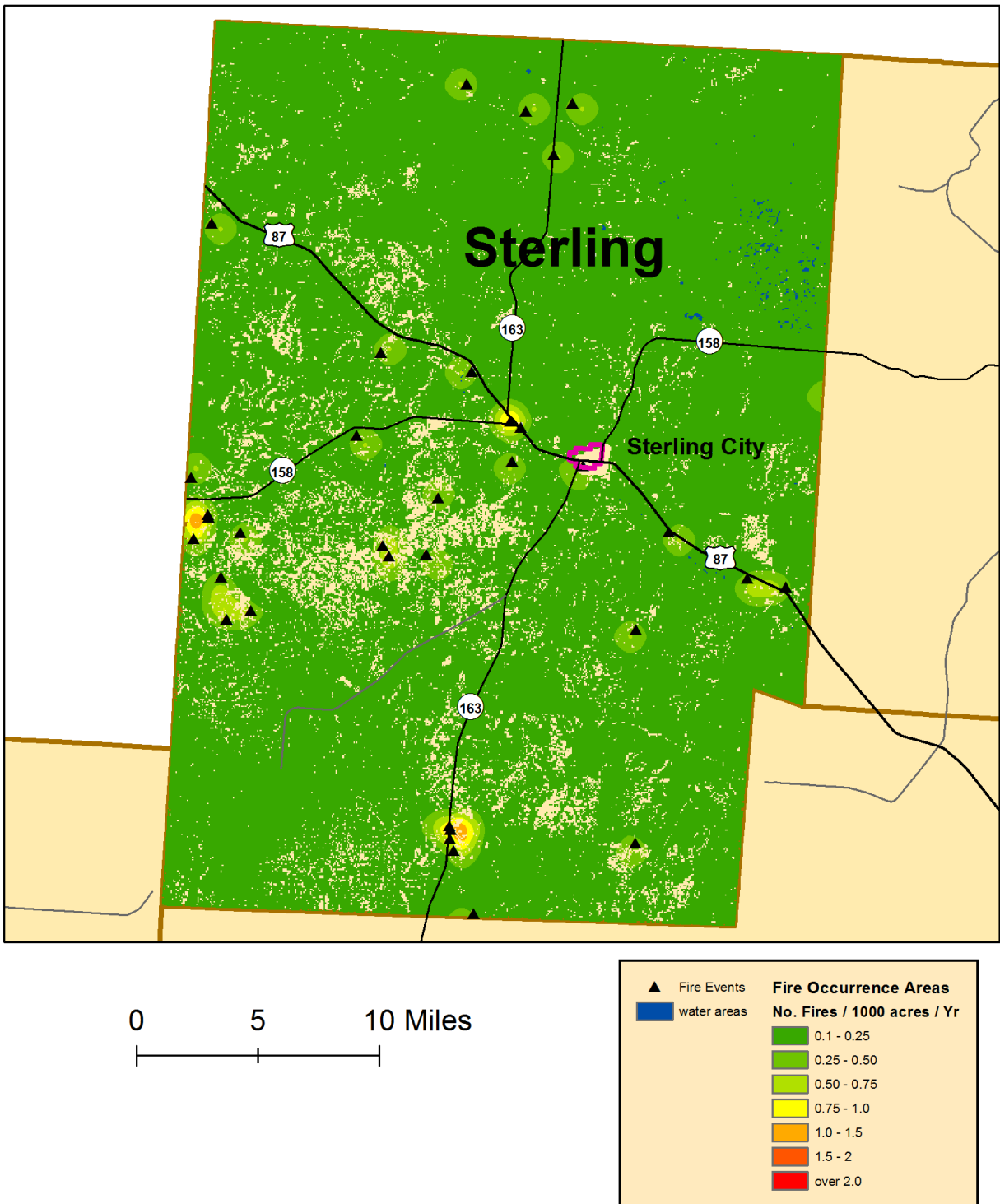
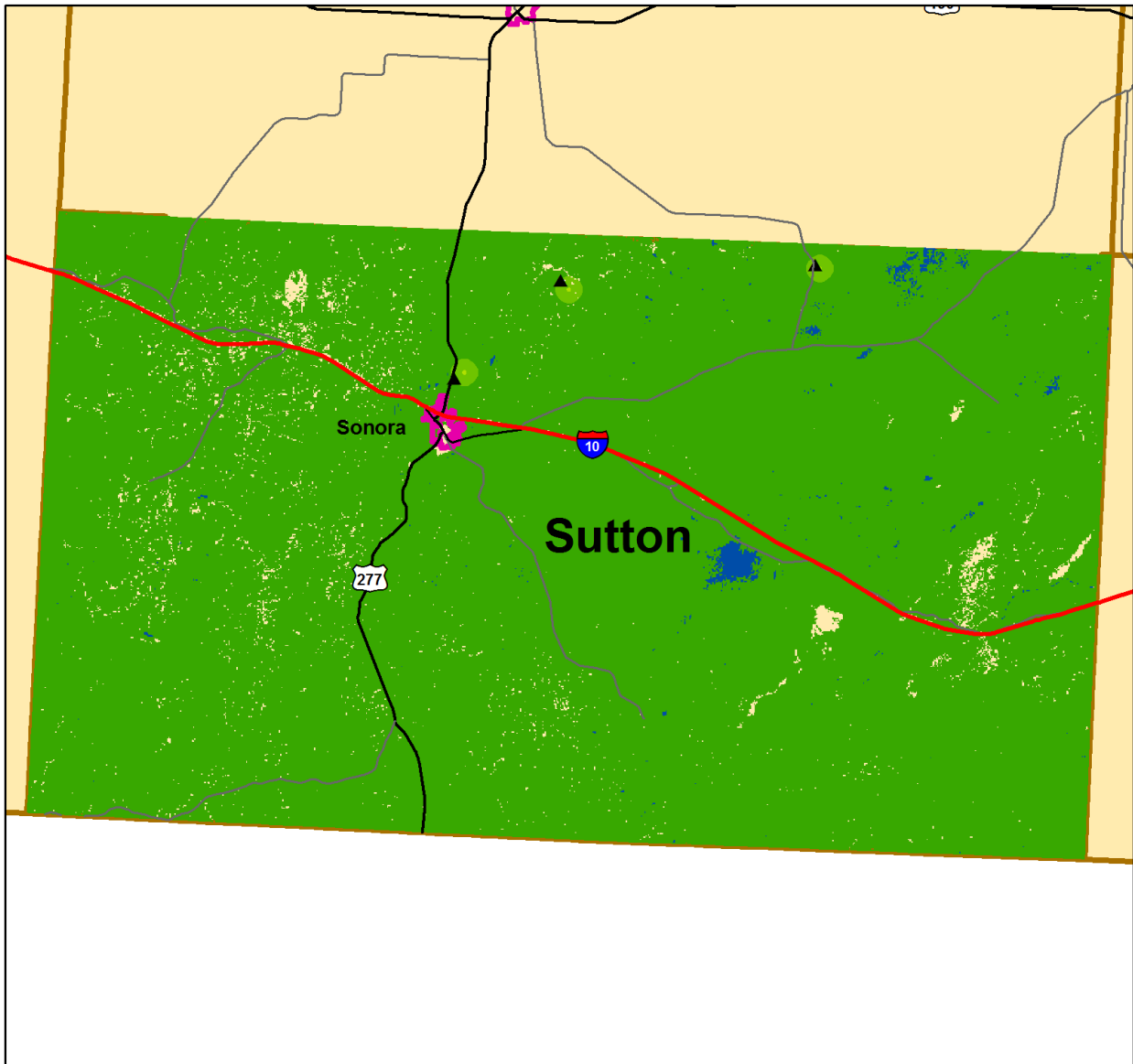


Figure 9-11. Location and Historic Wildfire Events for Sutton County



0 5 10 Miles

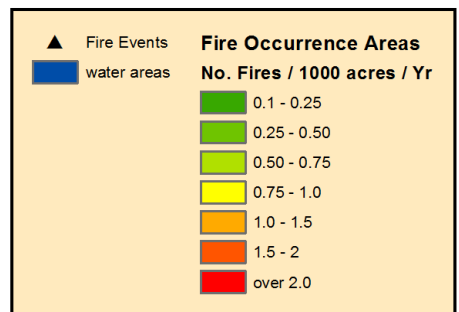
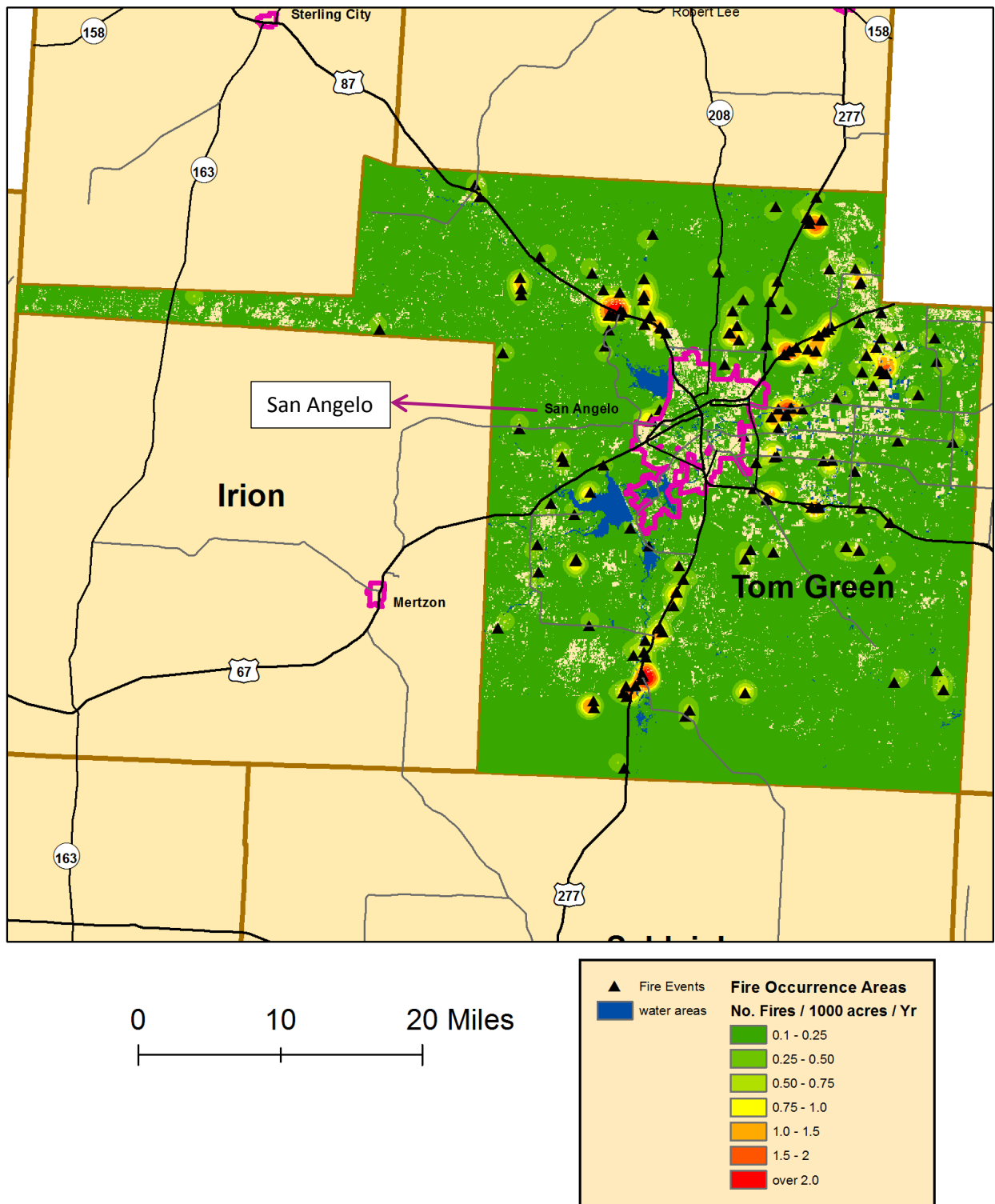


Figure 9-12. Location and Historic Wildfire Events for Tom Green County



Wildfire

The incident records that were included in the SWRA risk assessment were given to the TFS by volunteer fire departments. The reporting of wildfires or other responses to the Forest Service is not required and therefore not all wildfires are represented.

Historical Fire Ignition Locations (Wildfire Events) for all counties are sparse and, in some cases, very sparse. However, this wildfire modeling is in its infancy, and is expected to be updated through a maintenance program, improve over time, and become more reliable.

While modeling provided by TFS is based on incidents reporting in 2005 and 2006, more recent records have been reported to the National Climatic Data Center (NCDC). A total of 44 wildfire incident records at the county level were available from NCDC as shown in Table 9-1 below. Dates range from 1994 to 2011, based on submission by volunteer fire departments.

Table 9-1. Reported Wildfires in the CVCOG Region, 1994-2011

| COUNTY | DATE |
|-----------|-----------|
| Coke | 6/29/1994 |
| | 8/28/1999 |
| | 2/25/2008 |
| | 4/10/2011 |
| | 6/08/2011 |
| Concho | 4/25/2011 |
| Crockett | 1/29/2008 |
| | 2/25/2008 |
| | 2/27/2011 |
| | 4/11/2011 |
| | 4/29/2011 |
| | 6/16/2011 |
| | 6/20/2011 |
| Irion | 1/01/2006 |
| | 2/25/2008 |
| | 3/26/2009 |
| | 2/27/2011 |
| | 4/04/2011 |
| | 4/26/2011 |
| Kimble | 4/26/2011 |
| McCulloch | 8/28/1999 |
| | 9/05/2000 |

| COUNTY | DATE |
|---------------------------------|------------|
| | 2/24/2007 |
| Menard | 8/28/1999 |
| | 4/10/2011 |
| Reagan | 1/01/2006 |
| Schleicher | 8/28/1999 |
| | 4/01/2011 |
| Sterling | 1/06/2006 |
| | 2/24/2007 |
| | 2/25/2008 |
| | 6/18/2011 |
| Sutton | 1/18/2006 |
| | 2/24/2007 |
| | 3/26/2011 |
| | 4/14/2011 |
| Tom Green | 12/03/2005 |
| | 1/19/2006 |
| | 2/17/2011 |
| | 4/08/2011 |
| | 4/10/2011 |
| | 4/10/2011 |
| | 6/20/2011 |
| 6/20/2011 | |
| Total Incidents Reported | 44 |

Significant Past Events

29 June 1994 – Coke County

Lightning started a wildfire which burned over 3,500 acres and destroyed a hunting camp and a number of fences. Damage was estimated at \$300,000.

1 January 2006 – Reagan County

Record high temperatures (in the mid to upper 70s), very low relative humidity, high winds, and two and a half months without measurable precipitation combined to produce a very active fire weather day. SPC issued a critical fire weather area for West Texas and Southeastern New Mexico in their Day 1 Fire Weather Outlook issued early on January 1st. A grassfire spread to over 40,000 acres in Reagan and Irion Counties on New Year’s Day. Newspapers original reported the cause as sparks from a transformer. Later, a fire

Wildfire

department official in Big Lake reported that a hawk landed on power lines and burst into flames, starting the fire. Because of high winds, recorded high temperatures, and very low relative humidity, it took firefighters three days to contain the wildfire. It was extinguished a couple of days later. One firefighter sustained second degree burns to his face while fighting the fire but was treated and released from a regional burn center. The fire was in mostly open country and thus only a hunting cabin was destroyed. In addition to the major fire in Reagan and Irion Counties, several other small fires scorched West Texas. Both Ector and Midland Counties had fire and fireworks bans in effect for the period between New Year's Eve and January 6, 2006. Several other counties also had fireworks bans in effect for the New Year's holiday. January was a dry month overall. Several other minor fires occurred throughout West Texas, including two along Interstate 20 in Stanton. Smoke from one of these fires reduced visibility on Interstate 20, causing a five car pile-up that resulted in two injuries.

26 April 2011 – Kimble County

The Oasis Pipeline Fire 11 miles south of Junction burned approximately 9,445 acres and it was 80 percent contained. There were 11 structures destroyed, including one home. Also, three vehicles and one bulldozer were destroyed, along with numerous power poles and fence lines. In addition, 20 head of cattle were lost. Commercial air tankers and four MAFFs tankers helped slow the spread of the fire that came within four miles south of Junction. This fire was started by lightning on April 26.

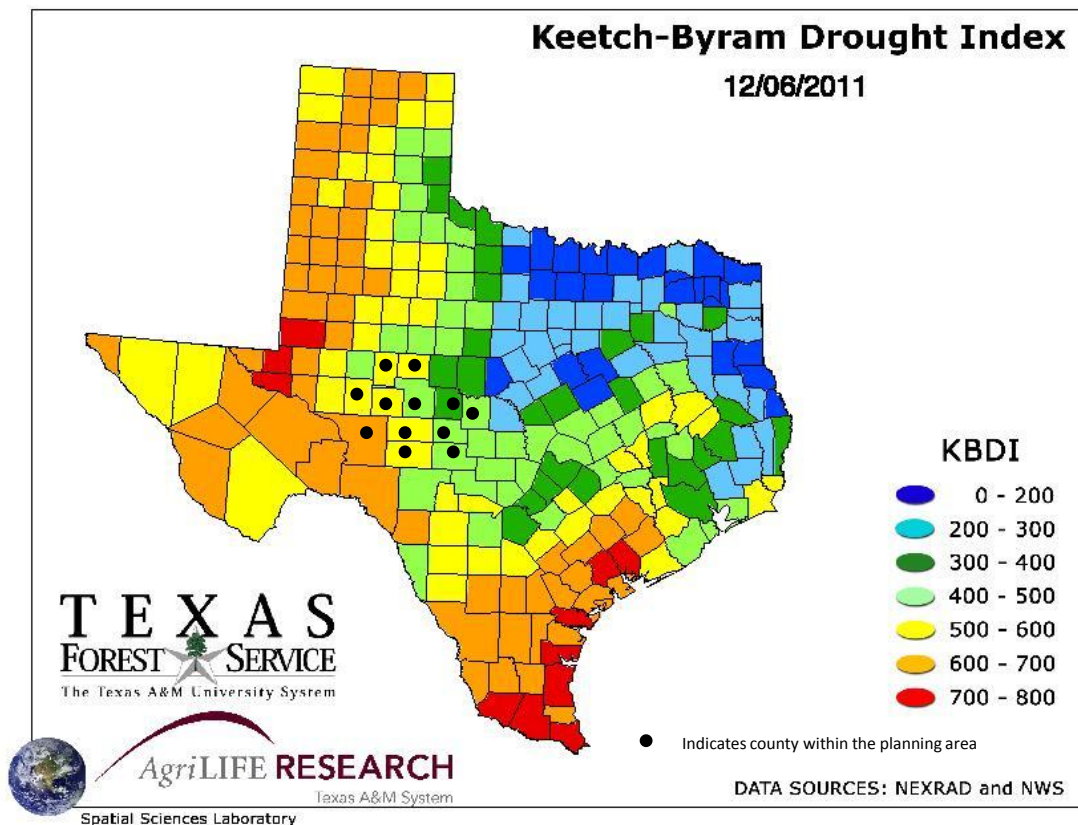
Extent

Wildfire risk is measured in terms of magnitude and intensity using the Keetch-Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected wildfire behavior.

The KBDI determines forest fire potential and is based on a daily water balance, where a drought factor is balanced with precipitation and soil moisture (assumed to have a maximum storage capacity of eight inches) and is expressed in hundredths of an inch of soil moisture depletion. Figure 9-13 displays the KBDI for Texas 2011. Counties within the CVCOG Region are denoted by location with a black dot inside the map of Texas in Figure 9-13.



Figure 9-13. KBDI for the State of Texas, 2011



Each color on the map represents the drought index at that location. The drought index ranges from 0 to 800, where a drought index of 0 represents no moisture depletion, and an index of 800 represents absolutely dry conditions.

These numbers correlate with potential fire behavior as follows:

- **0 - 200** Soil and fuel moisture are 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** Fires more readily burn and will carry across an area with no gaps. Heavier fuels will still not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night.
- **400 - 600** 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 possible smoke and control problems.

- **600 - 800** Fires will burn to mineral soil. Stumps will burn to the end of underground roots and spotting will be a major problem. Fires will burn thorough the night and heavier fuels will actively burn and contribute to fire intensity.

From the illustration in Figure 9-13, the counties and participating jurisdictions within the CVCOG Region currently fall within a scale of 300-700, with the majority at a KBDI of 500 to 600. In a period of extreme heat or drought, the KBDI could be over 500 for the area. Table 9-2 provides information on the average, maximum and minimum KBDI for each county participating in the CVCOG Plan Update. Incorporated communities are uniform in extent for the range listed for each county in Table 9-2. This table should be read in conjunction with the current KBDI index in determining the potential magnitude of a wildfire event. Because the KBDI is a measure of the current readiness of fuels for wildfire, caution should be exercised in dryer, hotter conditions, and the KBDI should be referenced as the area experiences changes in precipitation and soil moisture.

Table 9-2. Extent for Wildfire by County²

| COUNTY | EXTENT TO BE MITIGATED (KBDI RANGE) |
|------------|--|
| Coke | 390-635 |
| Concho | 180-500 |
| Crockett | 340-760 |
| Irion | 490-665 |
| Kimble | 265-575 |
| McCulloch | 305-505 |
| Menard | 270-520 |
| Reagan | 275-655 |
| Schleicher | 280-700 |
| Sterling | 425-705 |
| Sutton | 270-660 |
| Tom Green | 315-660 |

Probability of Future Events

Wildfires can occur at any time of the year. Climatic conditions, such as severe freezes and drought can significantly increase the intensity of wildfires since these conditions kill vegetation, creating a prime fuel source for these types of fires. The intensity of fires and the rate at which they spread are directly related to wind speed, temperature and relative humidity.

² Source: Texas Forest Service

Wildfire

Based on the 44 incident records that occurred within the 17 year period (1994 to 2011), the probability of future wildfire events is highly likely, with an event probable within the next year.

The Communities at Risk (CAR) maps produced by the SWRA project are shown in Figures 9-14 to 9-22 to follow. A map was created for each participating county in the CVCOG Region except for Crockett, Menard, and Reagan Counties where no data was produced by SWRA. These risk scores give indication of probability of future wildfire events and they were derived by averaging the Wildland Fire Susceptibility Index (WFSI) value for each community, including a buffer zone around the community. This tool is useful in two ways. First, communities can be categorized based on their level of risk, which can aid in identifying the location where more detailed fire planning may be needed. Second, users are able to identify and prioritize those areas (not communities necessarily) where tactical analyses, mitigation activities, and community interaction may be necessary to reduce risk from wildfire.

The WFSI is also a product of the SWRA project. It is a value between 0 and 1, and was developed consistent with the mathematical calculation process for determining the probability of an acre burning. The WFSI integrates the probability of an acre igniting and the expected final fire size based on the rate of spread in four weather percentile categories into a single measure of wildland fire susceptibility.

Figure 9-14. Communities at Risk from Wildfire: Coke County



Figure 9-15. Communities at Risk from Wildfire: Concho County



Figure 9-16. Communities at Risk from Wildfire: Irion County

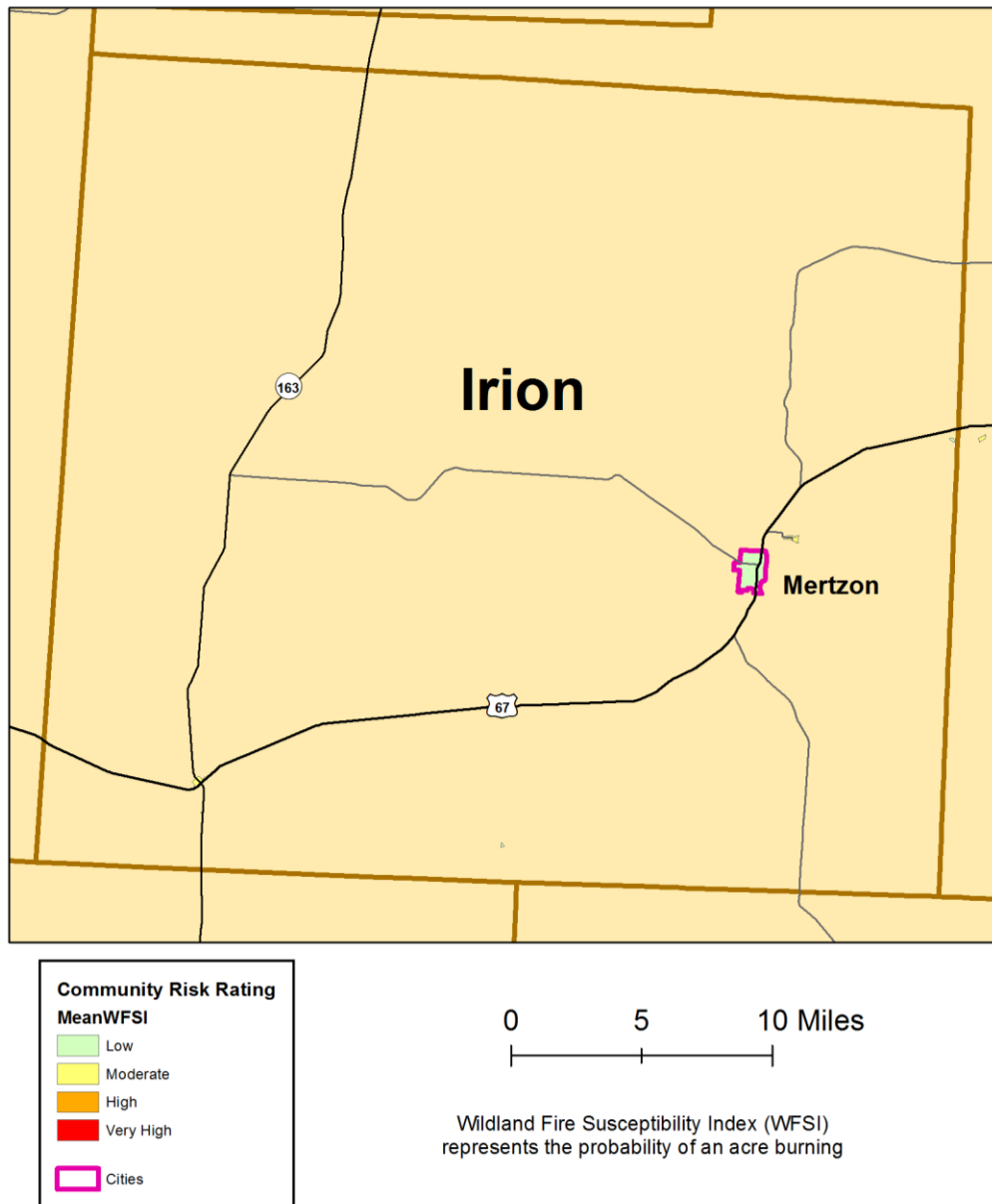
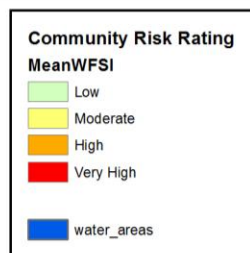
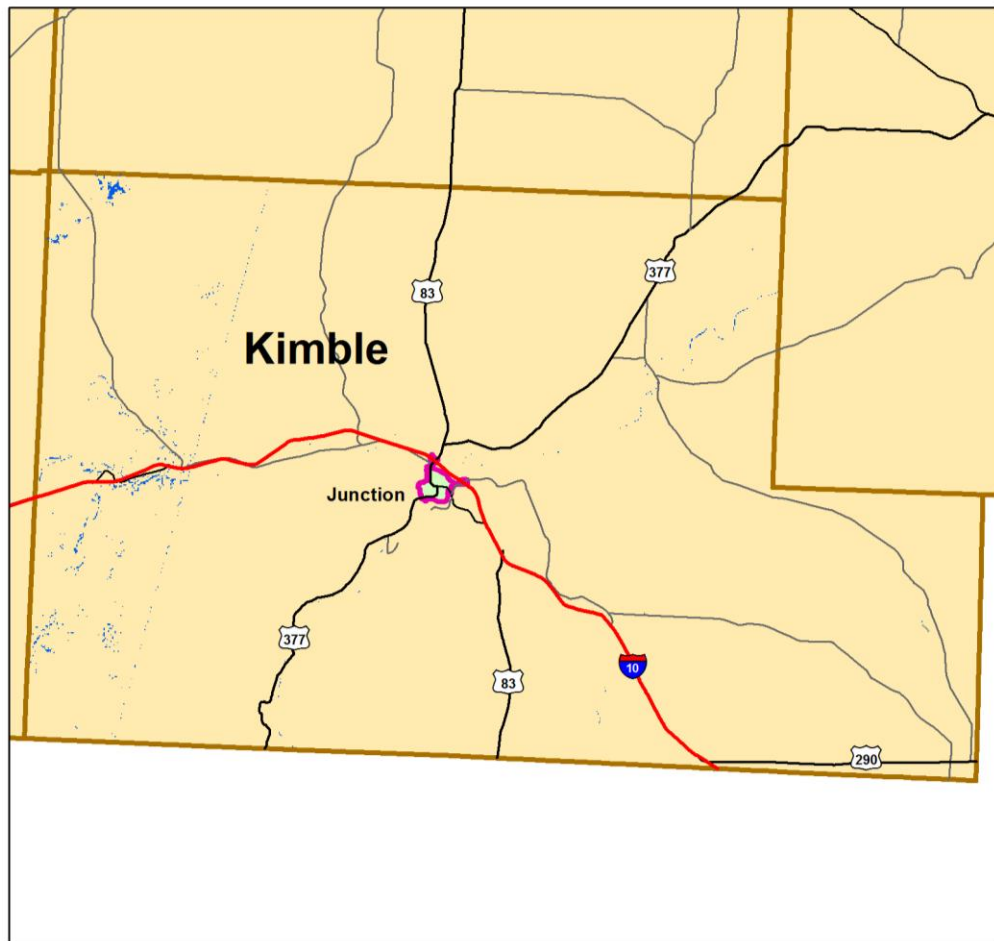


Figure 9-17. Communities at Risk from Wildfire: Kimble County



Wildland Fire Susceptibility Index (WFSI) represents the probability of an acre burning

Figure 9-18. Communities at Risk from Wildfire: McCulloch County

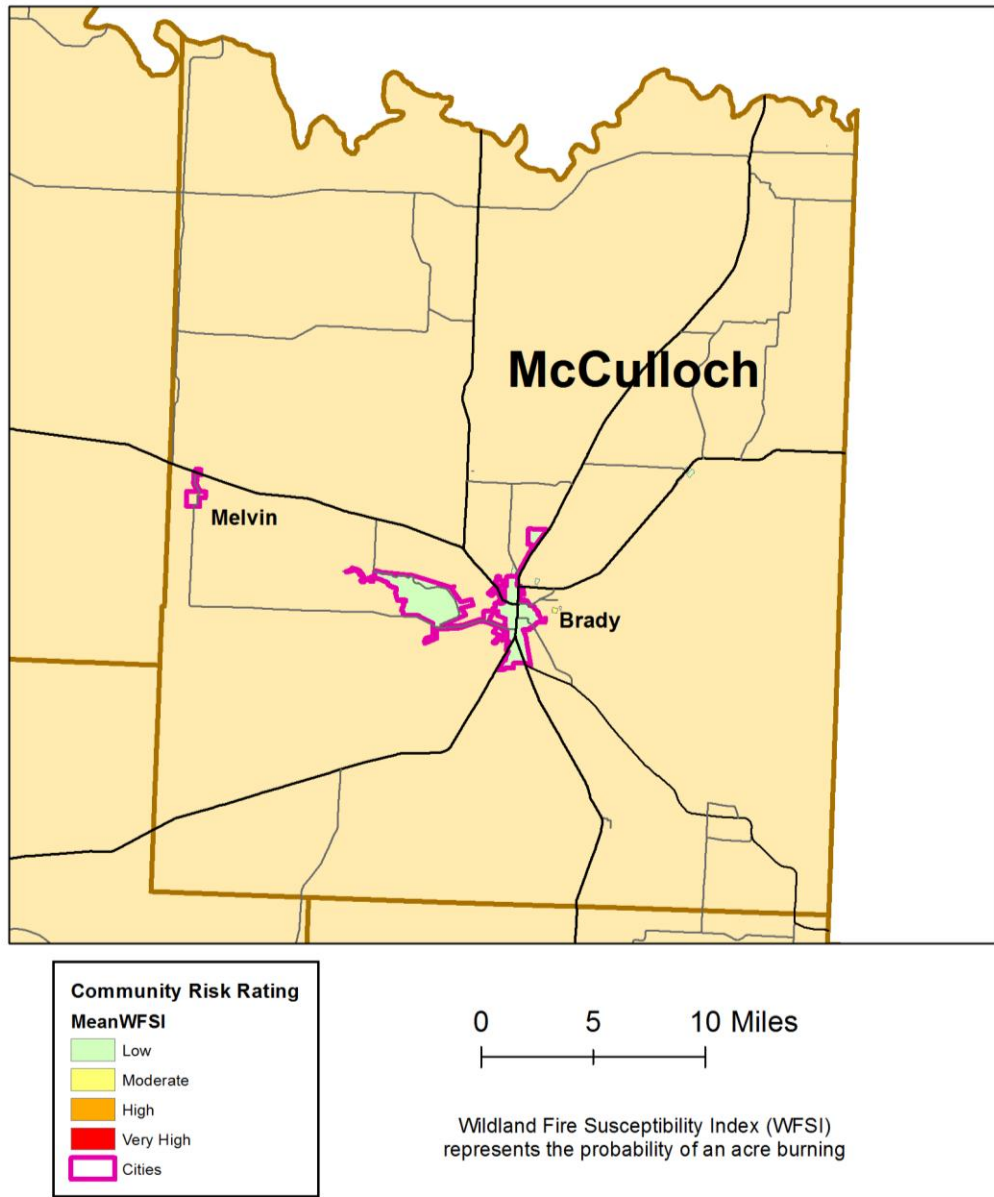


Figure 9-19. Communities at Risk from Wildfire: Schleicher County

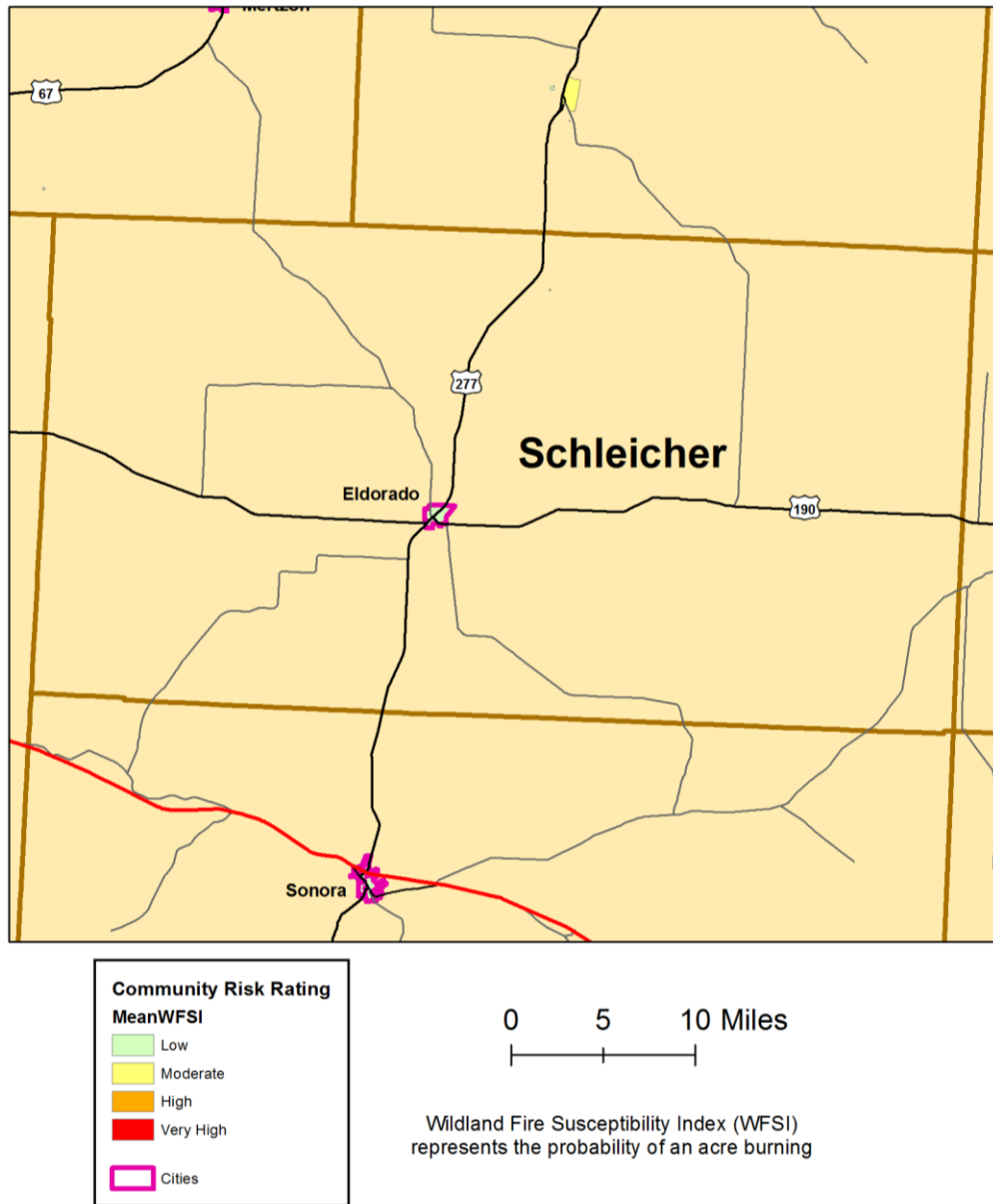


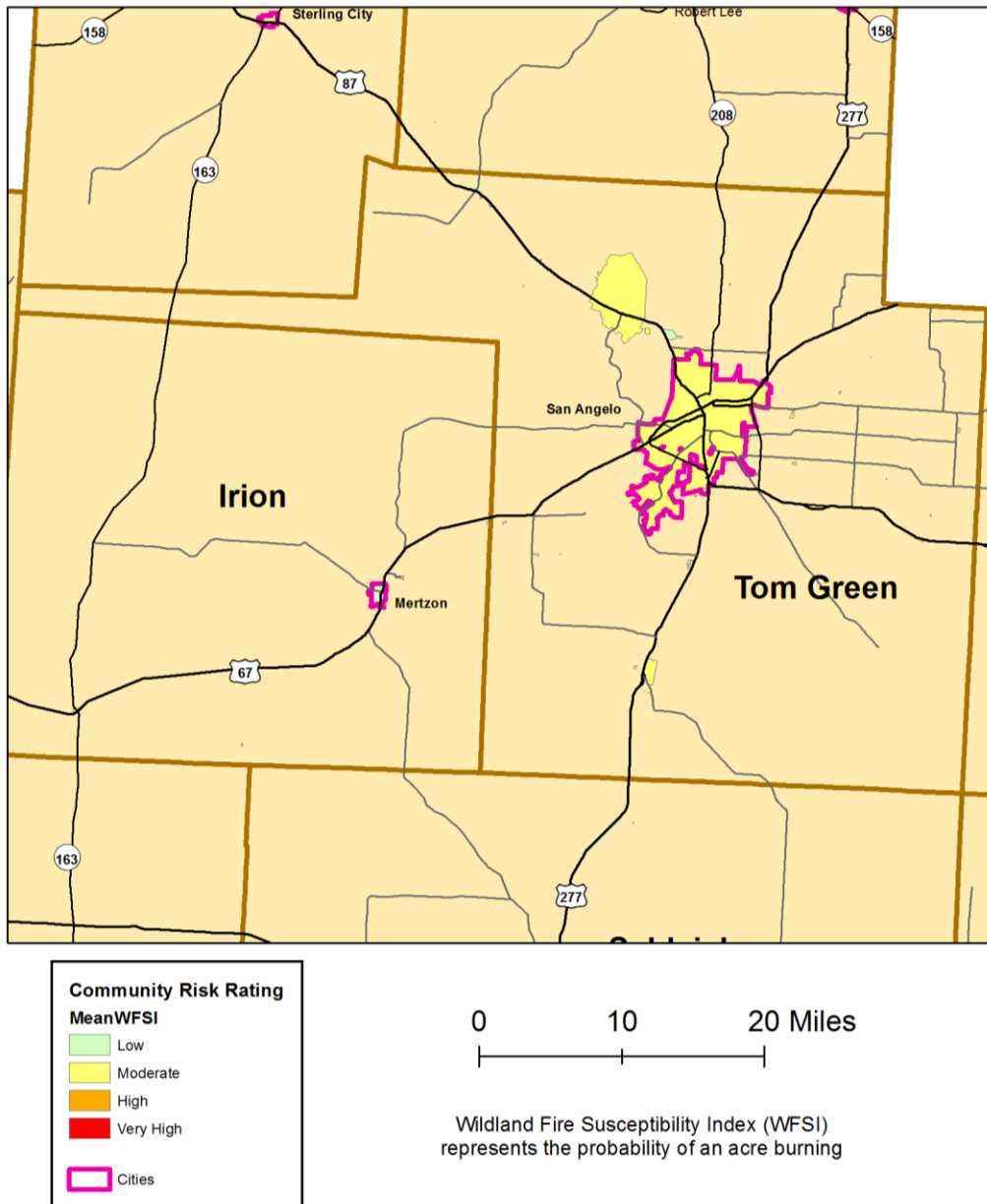
Figure 9-20. Communities at Risk from Wildfire: Sterling County



Figure 9-21. Communities at Risk from Wildfire: Sutton County



Figure 9-22. Communities at Risk from Wildfire: Tom Green County



Vulnerability and Impact

Wildfire hazard areas mapped by SWRA are shown in Figures 9-23 to 9-34. These maps provide a qualitative idea of vulnerability. The Level of Concern (LOC) is a value between 0 and 100. It is calculated as the Wildland Fire Susceptibility Index (WFSI) times the Fire Effects Index (FEI). The overall level of concern for wildfire is located mostly along the perimeter of the jurisdiction where wildland and urban areas interface. It is one of the two primary outputs and is a measure of wildfire risk. The LOC can be used to: identify areas where mitigation options may be of value; allow agencies to work together and better define priorities; develop a refined analysis of a complex landscape and fire situations using GIS; and increase communication with local residents to address community priorities and needs.

Areas along railroads and people with homes in wooded, rural areas have an increased risk of wildfire. The sparsely populated participating jurisdictions and rural areas of Crockett County, Irion County, Kimble County, Menard County, McCulloch County, Reagan County, Sterling County, and Sutton County are capable of experiencing large sweeping fires, especially where areas of vegetation are not maintained. There are no critical facilities at risk in Crockett County, but if a severe wildfire event were to occur, police stations, volunteer fire departments and schools in the cities of Junction in Kimble County, Mertzon in Irion County, Melvin in McCulloch County, Menard in Menard County, Big Lake in Reagan County, Sterling City in Sterling County, and Sonora in Sutton County would be at risk. Also at risk are two hospital systems, Lillian M. Hudspeth Memorial Hospital in Sonora and Kimble Hospital in Kimble County.

Areas along major highways in Coke and Concho counties have an increased vulnerability where empty lots and unoccupied areas are located. Fire stations and schools in Bronte in Coke County and the City of Paint Rock and the northern section of Concho County have a higher vulnerability due to the wildland urban interface at these critical facilities, compared to a lower risk at Eden in Concho County where the Concho County Hospital is located. Volunteer fire departments, schools, police stations and the Schleicher County Medical Center are all located in Eldorado in an area of low risk, outside of the major areas of vulnerability in the county. However, residential neighborhoods in unincorporated areas of the county, such as Sonora have a greater vulnerability, especially those constructed of wood with pier and beam foundations rather than brick homes with concrete foundations.

The populous areas of the City of San Angelo, where most critical facilities are located in Tom Green County, experience a lower vulnerability to wildfire due to the low level of wildland urban interface. The northern and eastern portions of the county, however, have a higher risk corresponding to the increase of interface and unmaintained grasslands and

Wildfire

vegetation. This includes fire stations, schools and residences in the unincorporated areas of Eola, Veribest, Wall, and Water Valley.

Throughout the CVCOG planning area, the elderly and those individuals with compromised respiratory systems remain the most vulnerable to a wildfire event. Diminished air quality may result from smoke plumes and fine particles of invisible soot and ash that are too small for the respiratory system to filter. This can lead to immediate illness and also lung disease if the exposure is intense and long in duration.

Approximate annualized losses were derived by dividing the adjusted total dollar amount reported by each county by the number of years (17) that the NCDC database was recording wildfire events and associated damages. The annualized estimates included in this risk assessment are intended to provide an understanding of relative risk. Table 9-3 below summarizes NCDC reported losses and associated annual loss estimates based on historic reported damages.

The risk of wildfire varies by month, depending on the climate, and warning time for wildfire events is often minimal or none. The severity of impact of major wildfire events can be major. Such events can cause serious injury and shut down facilities for at least two weeks.

Table 9-3. Loss Estimates in the CVCOG Region

| COUNTY | NUMBER OF EVENTS | DEATHS | INJURIES | PROPERTY DAMAGE | CROP DAMAGE | TOTAL DAMAGES | ANNUAL LOSSES |
|---------------|------------------|----------|----------|--------------------|--------------------|--------------------|--------------------|
| Coke | 4 | 0 | 0 | \$502,000 | \$0 | \$502,000 | \$29,529 |
| Concho | 1 | 0 | 0 | \$0 | \$5,000 | \$5,000 | \$294 |
| Crockett | 5 | 0 | 0 | \$200,000 | \$0 | \$200,000 | \$11,765 |
| Irion | 6 | 0 | 1 | \$0 | \$0 | \$0 | \$0 |
| Kimble | 1 | 0 | 0 | \$350,000 | \$0 | \$350,000 | \$20,588 |
| McCulloch | 3 | 0 | 0 | \$11,000 | \$0 | \$11,000 | \$647 |
| Menard | 2 | 0 | 0 | \$2,000 | \$0 | \$2,000 | \$118 |
| Reagan | 1 | 0 | 1 | \$15,000 | \$1,300,000 | \$1,315,000 | \$77,353 |
| Schleicher | 2 | 0 | 0 | \$10,000 | \$0 | \$10,000 | \$588 |
| Sterling | 3 | 0 | 1 | \$0 | \$0 | \$0 | \$0 |
| Sutton | 4 | 0 | 0 | \$0 | \$0 | \$0 | \$0 |
| Tom Green | 6 | 0 | 0 | \$210,000 | \$0 | \$210,000 | \$12,353 |
| TOTALS | 38 | 0 | 3 | \$1,300,000 | \$1,305,000 | \$2,605,000 | \$3,910,000 |

Figure 9-23. Overall Wildfire Risk (Level of Concern): Coke County

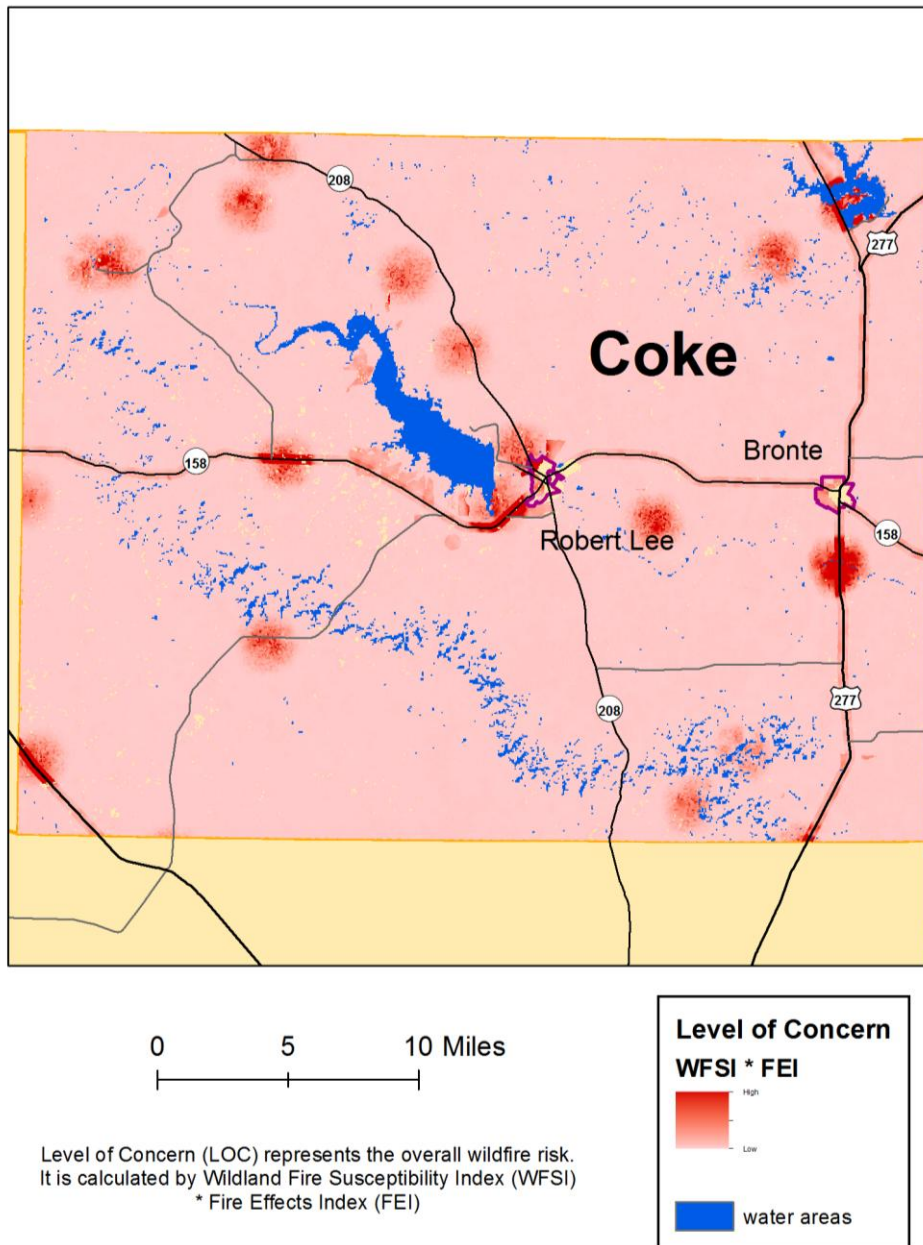


Figure 9-24. Overall Wildfire Risk (Level of Concern): Concho County

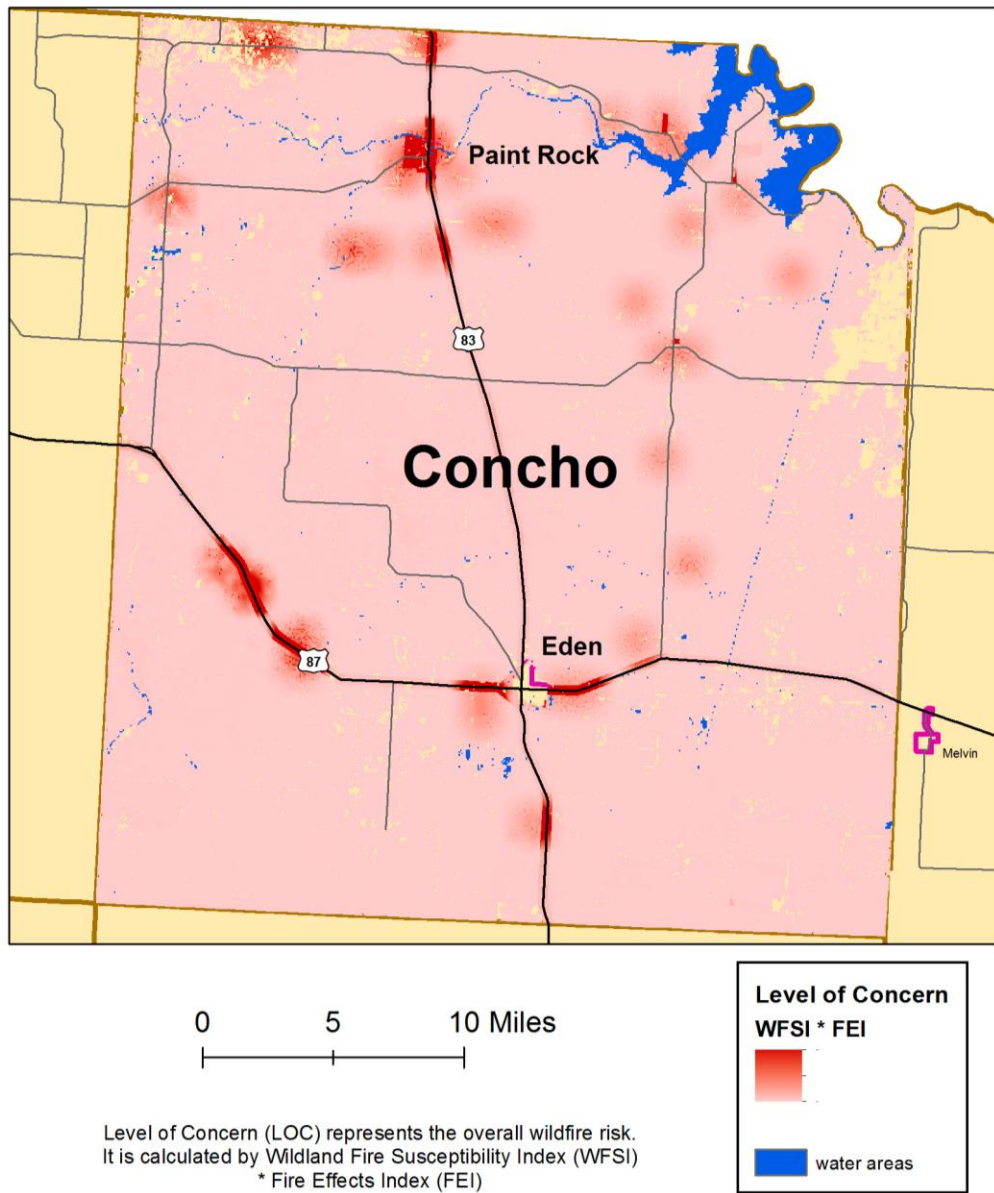
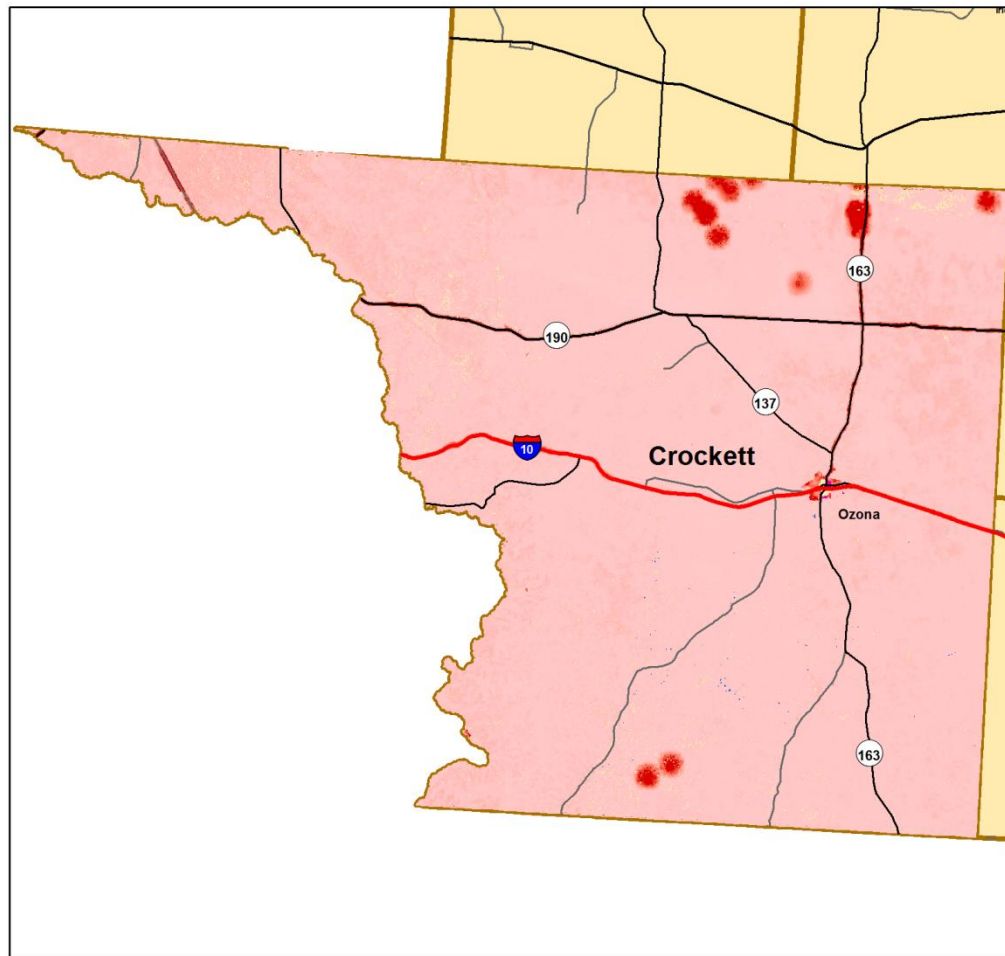


Figure 9-25. Overall Wildfire Risk (Level of Concern): Crockett County



0 10 20 Miles

Level of Concern (LOC) represents the overall wildfire risk. It is calculated by Wildland Fire Susceptibility Index (WFSI) * Fire Effects Index (FEI)

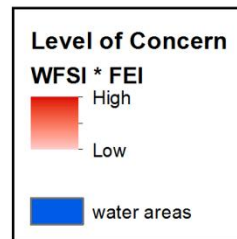


Figure 9-26. Overall Wildfire Risk (Level of Concern): Irion County

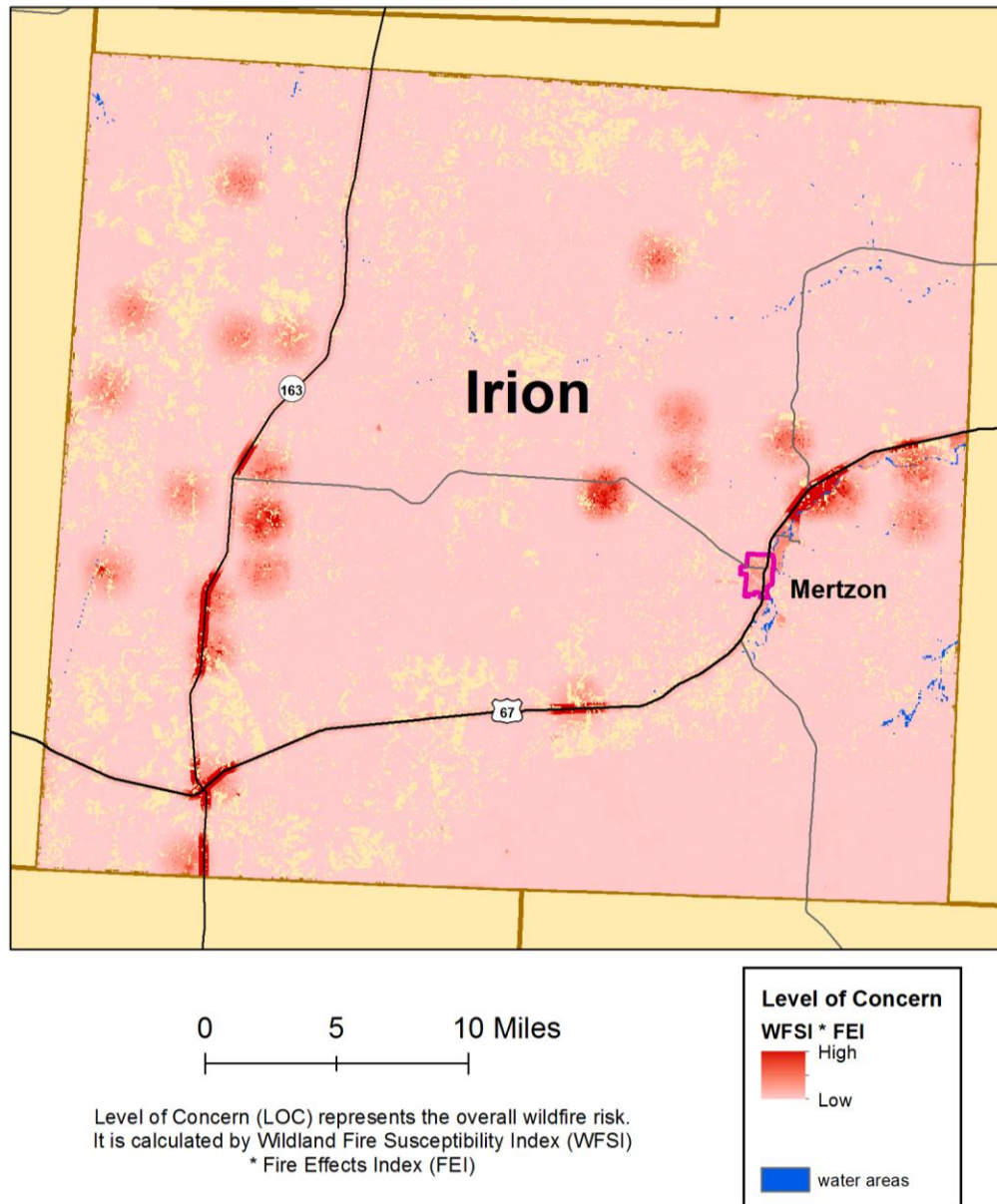
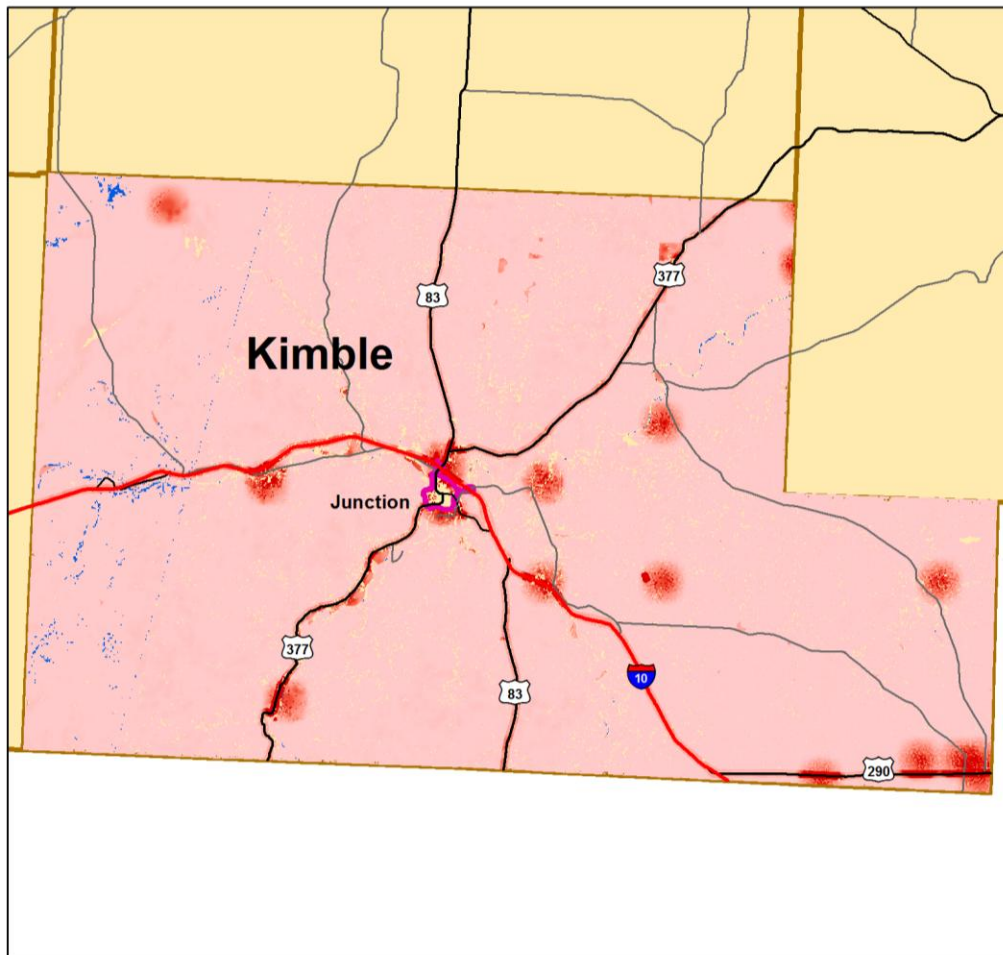


Figure 9-27. Overall Wildfire Risk (Level of Concern): Kimble County



0 5 10 Miles

Level of Concern (LOC) represents the overall wildfire risk.
It is calculated by Wildland Fire Susceptibility Index (WFSI)
* Fire Effects Index (FEI)

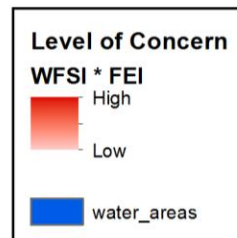


Figure 9-28. Overall Wildfire Risk (Level of Concern): McCulloch County

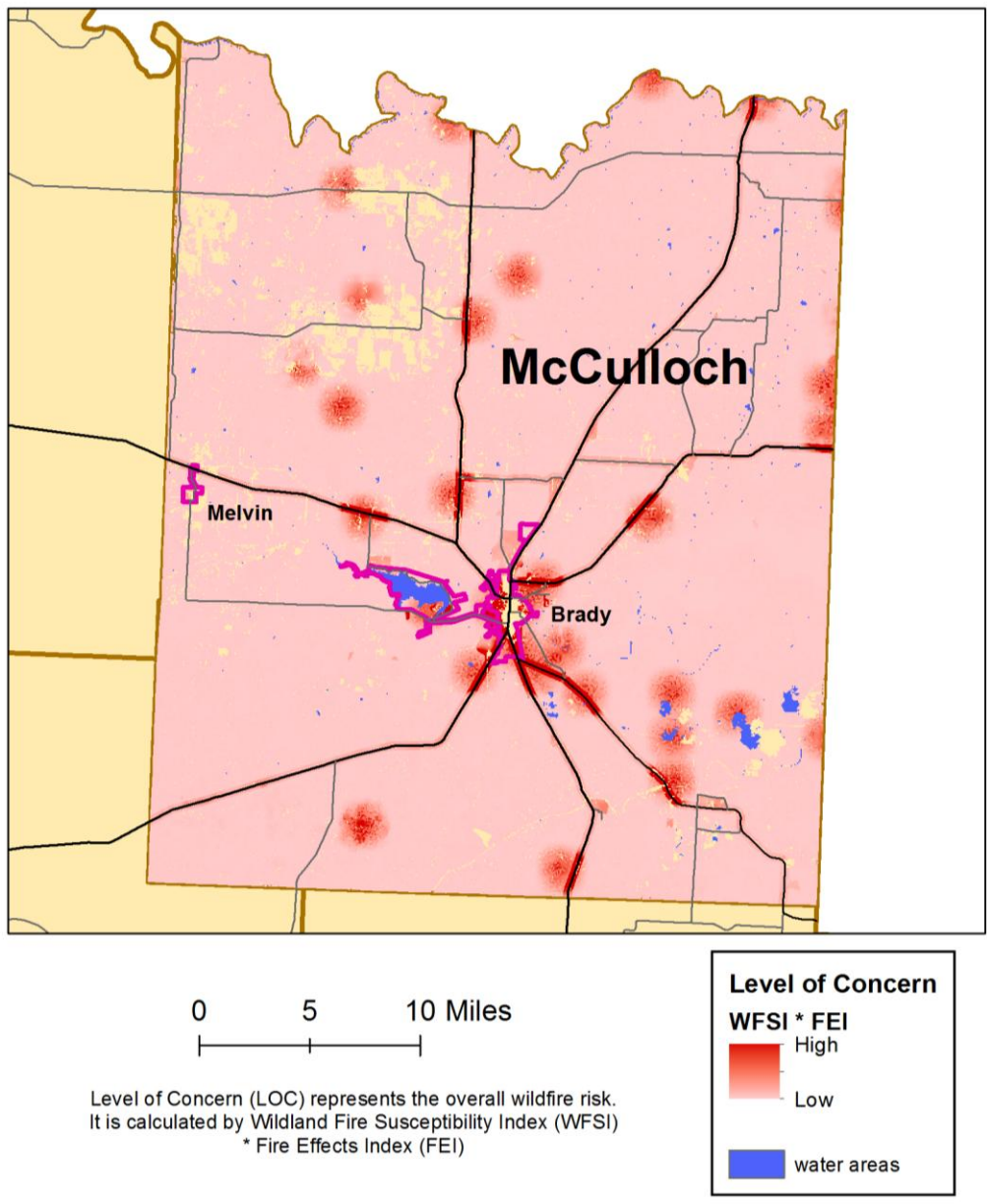


Figure 9-29. Overall Wildfire Risk (Level of Concern): Menard County

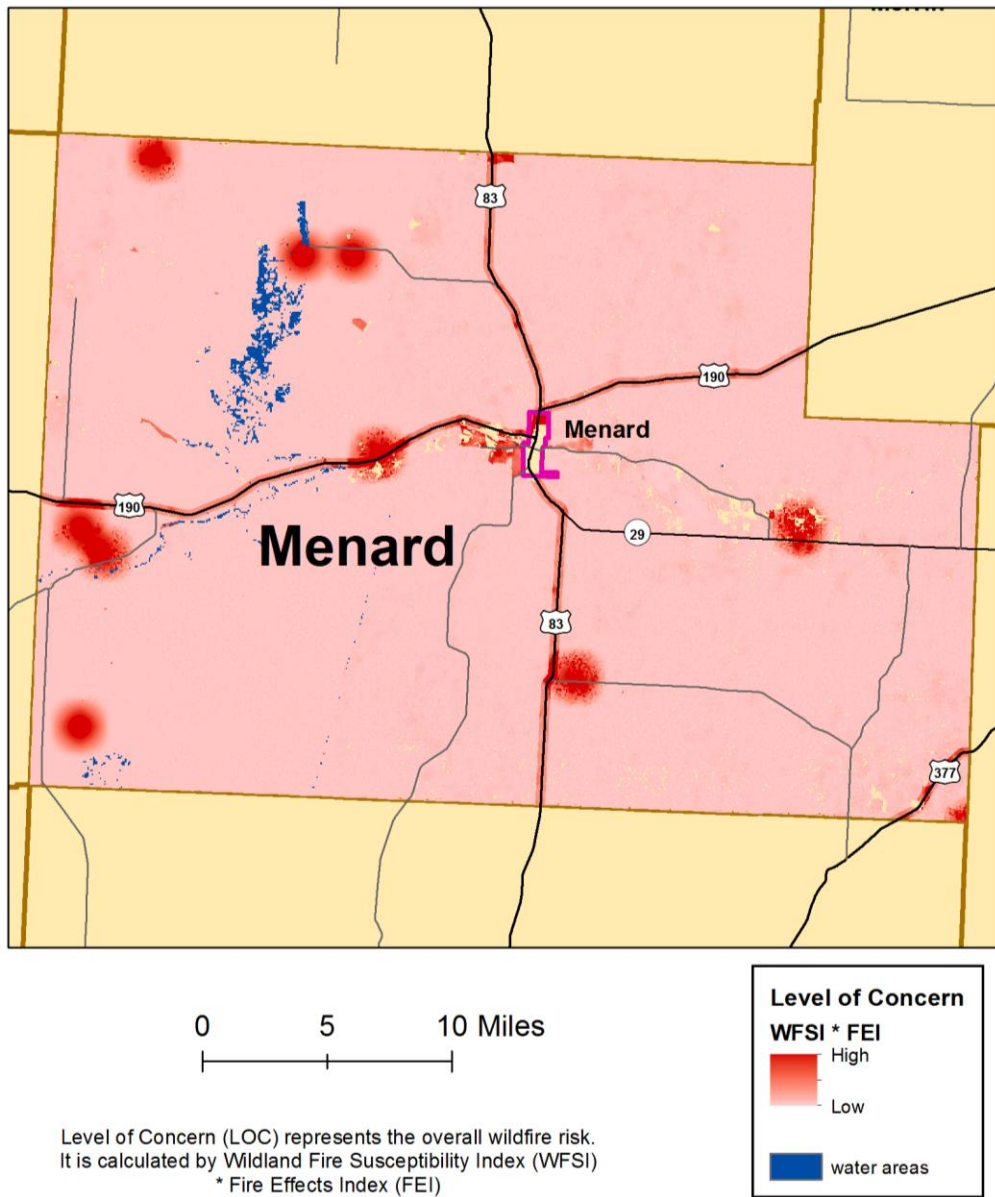
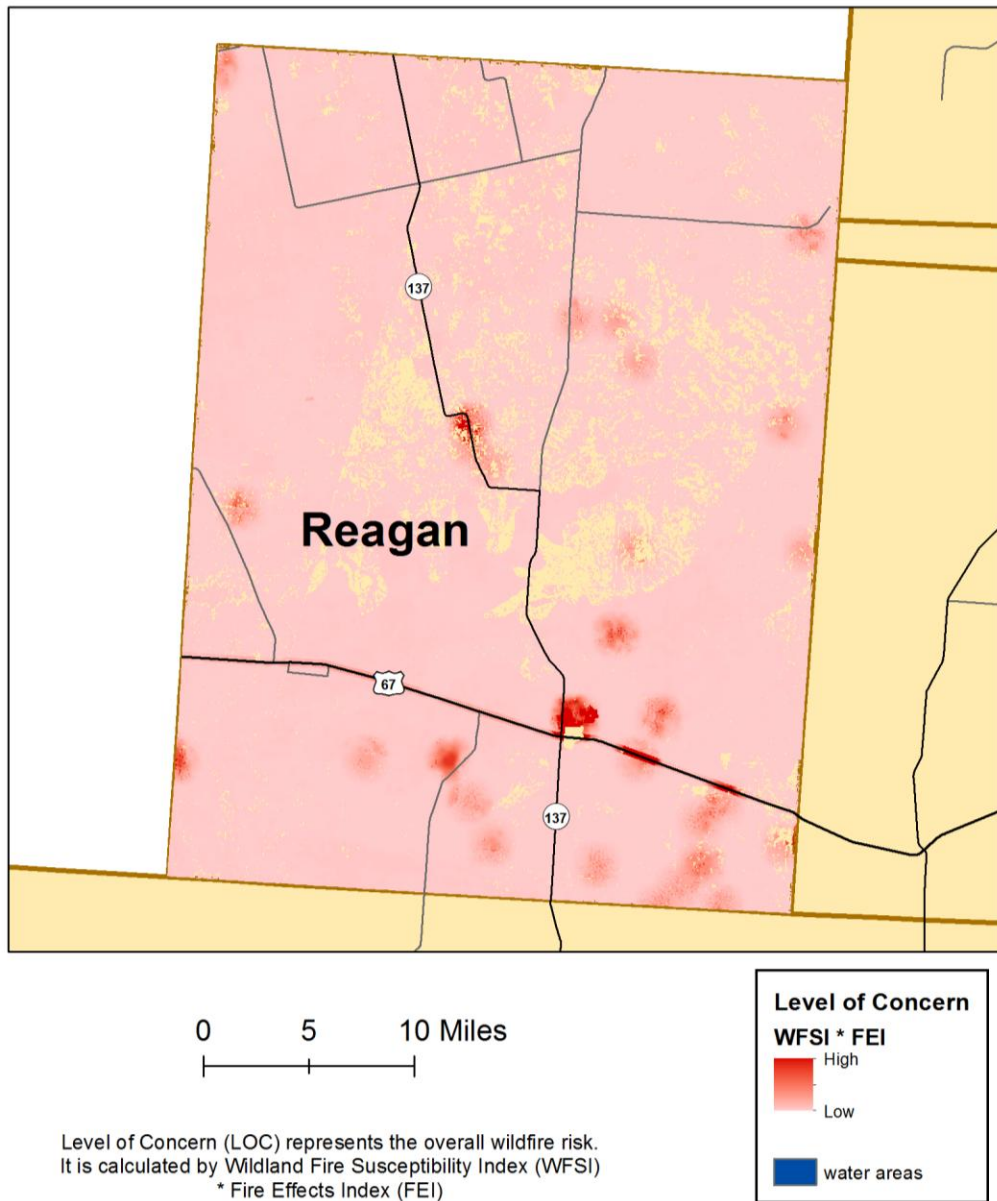


Figure 9-30. Overall Wildfire Risk (Level of Concern): Reagan County



Level of Concern (LOC) represents the overall wildfire risk.
It is calculated by Wildland Fire Susceptibility Index (WFSI)
* Fire Effects Index (FEI)

Figure 9-31. Overall Wildfire Risk (Level of Concern): Schleicher County

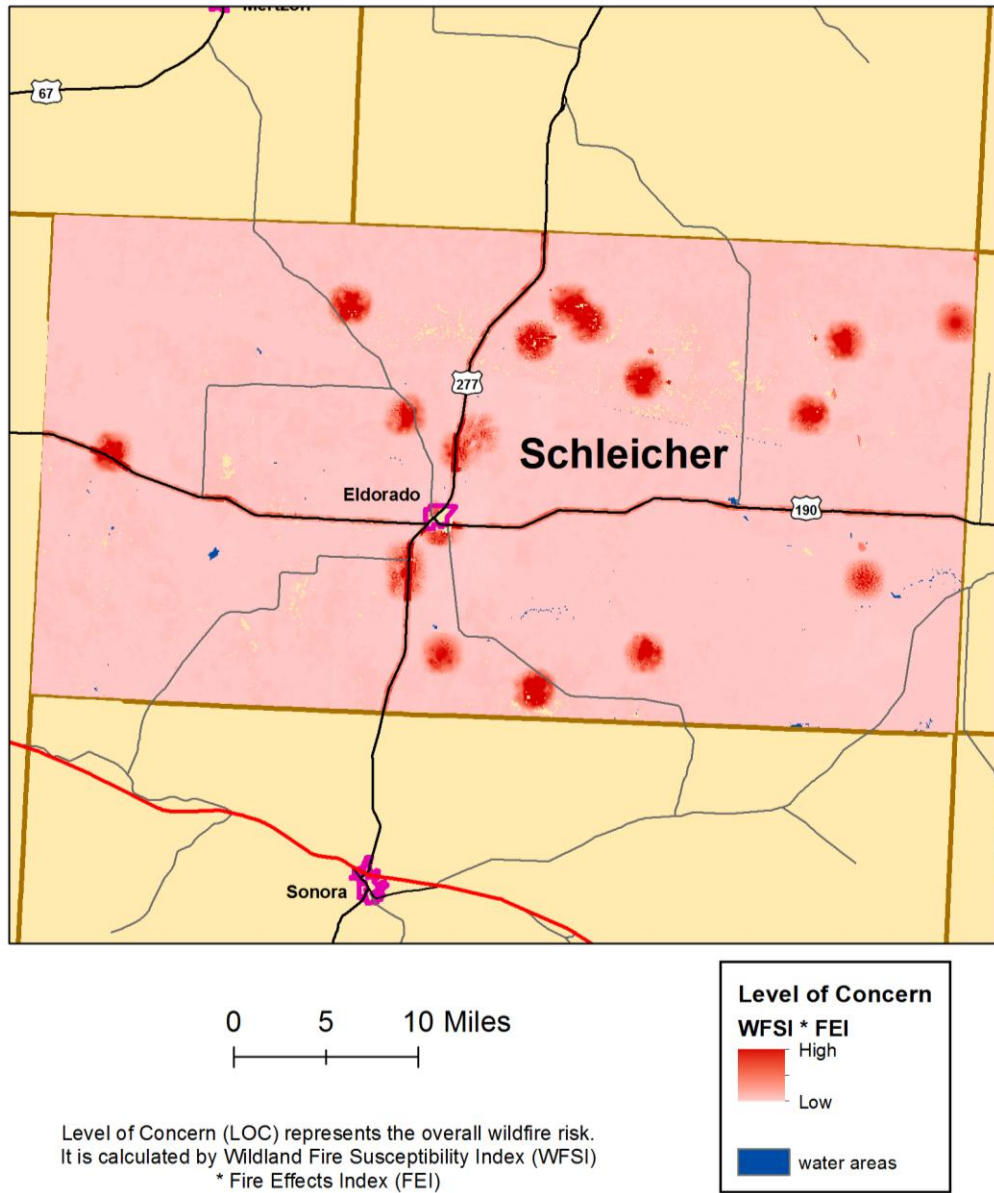


Figure 9-32. Overall Wildfire Risk (Level of Concern): Sterling County

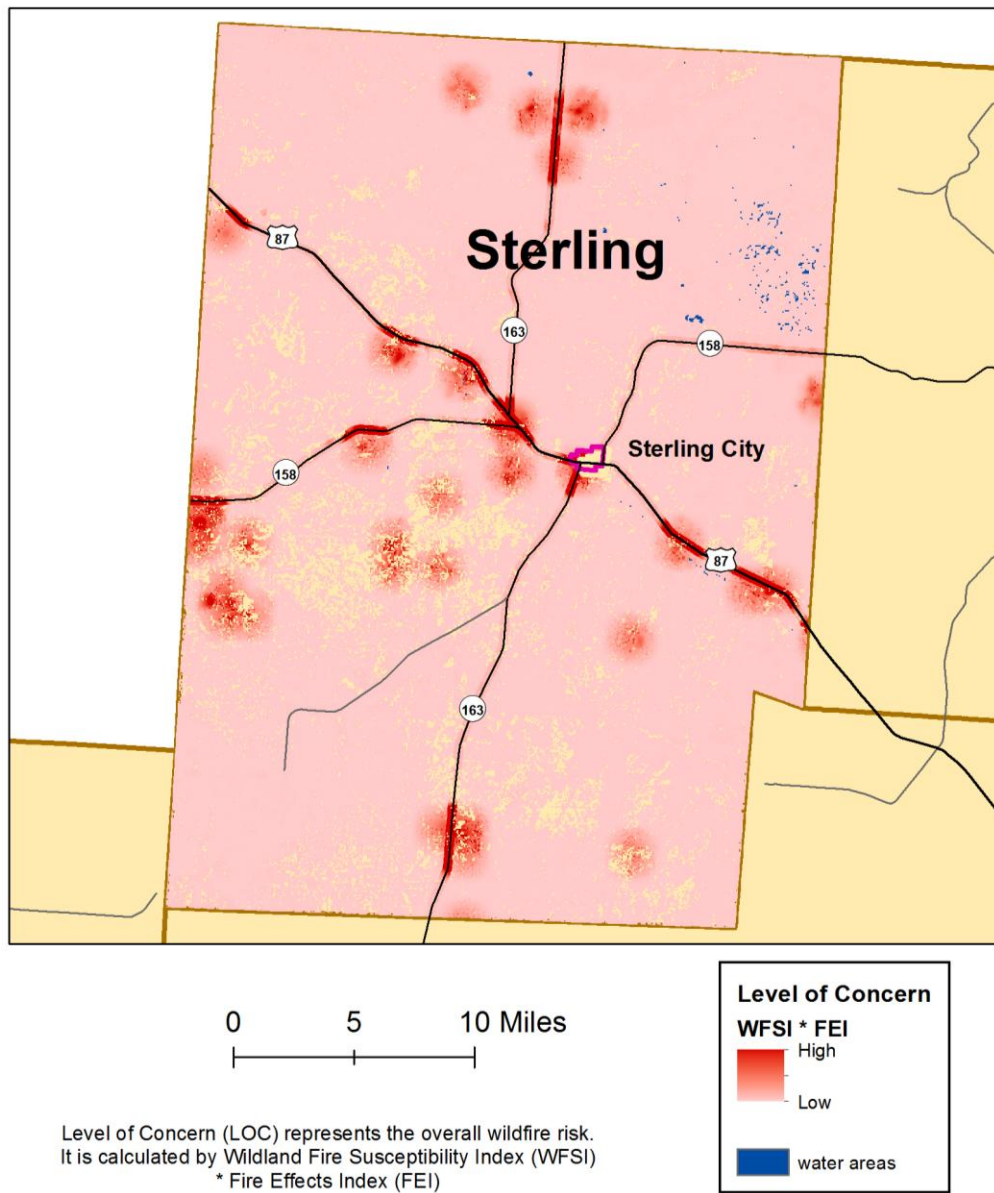


Figure 9-33. Overall Wildfire Risk (Level of Concern): Sutton County

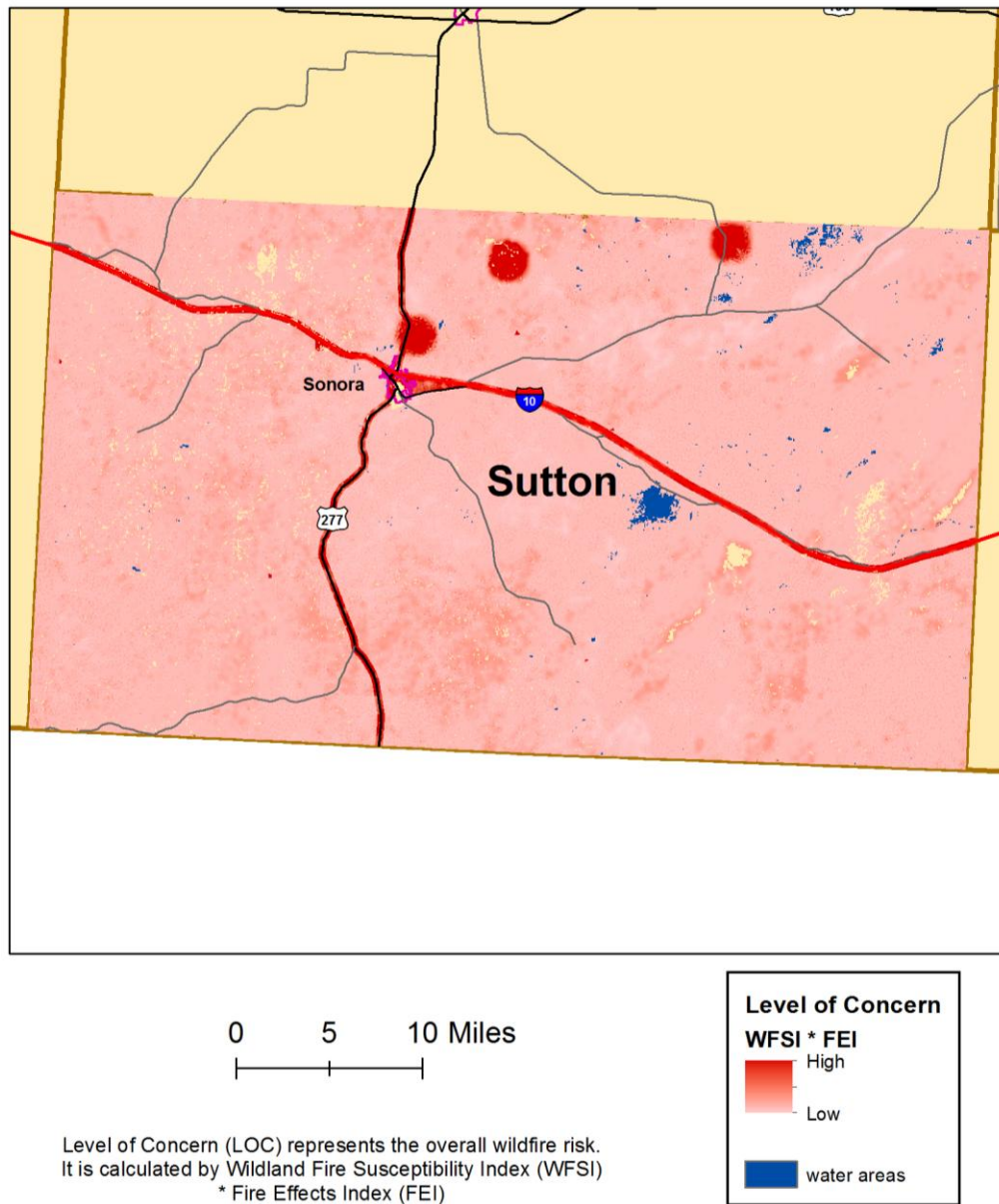
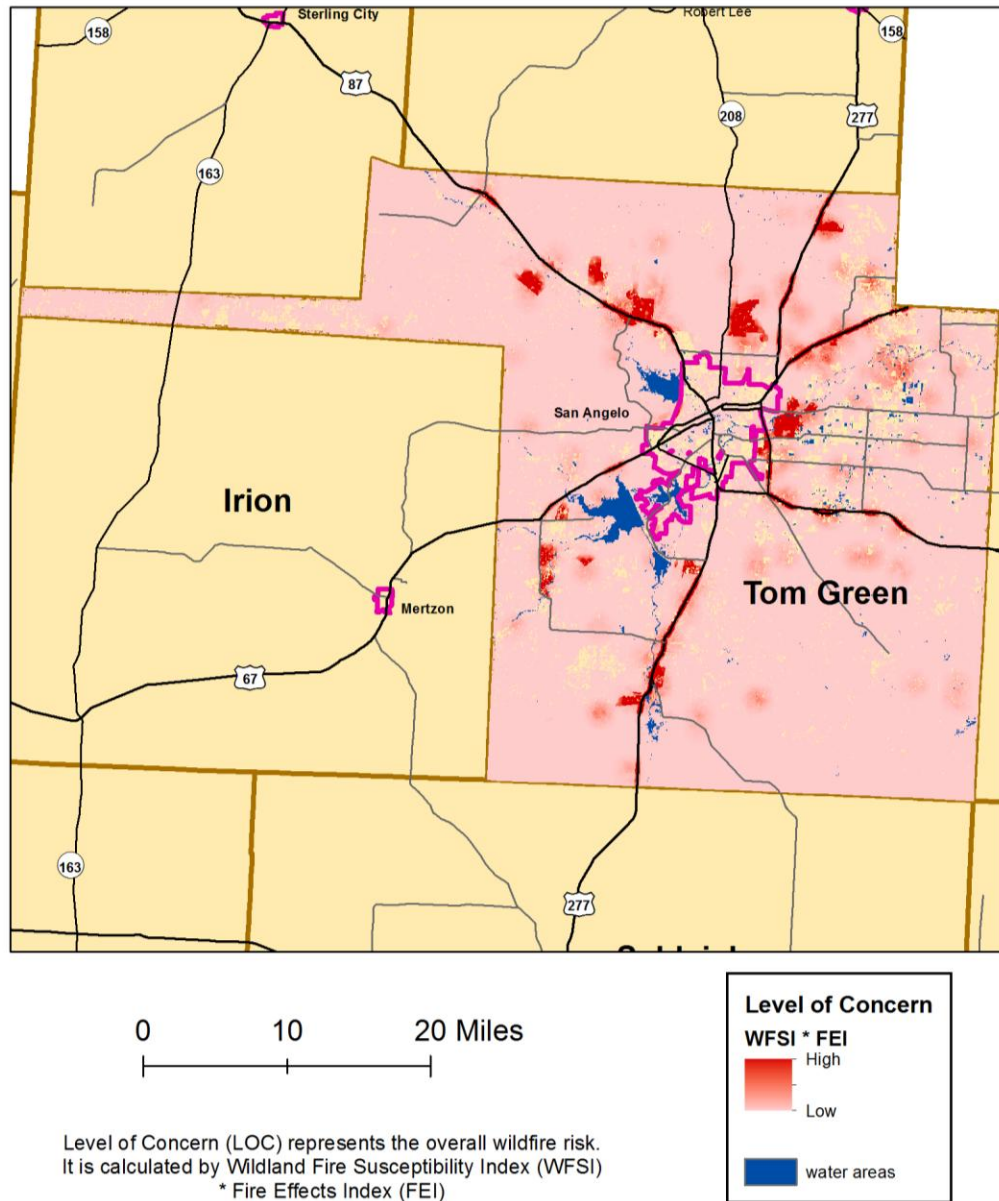


Figure 9-34. Overall Wildfire Risk (Level of Concern): Tom Green County



DAM FAILURE

HAZARD DESCRIPTION 1
LOCATION..... 2
EXTENT..... 3
HISTORICAL OCCURRENCES 7
PROBABILITY OF FUTURE EVENTS 8
VULNERABILITY AND IMPACT 8

Hazard Description

Dams are water storage, control or diversion structures that impound water upstream in reservoirs. Dam failure can take several forms, including a collapse of, or breach in, the structure. While most dams have storage volumes small enough that failures have few or no repercussions, dams storing large amounts can cause significant flooding downstream. Dam failures can result from any one, or a combination, of the following causes:

- Prolonged periods of rainfall and flooding, which cause most failures;
- Inadequate spillway capacity, resulting in excess overtopping of the embankment;
- Internal erosion caused by embankment or foundation leakage or piping;
- Improper maintenance, including failure to remove trees, repair internal seepage problems, or maintain gates, valves, and other operational components;
- Improper design or use of improper construction materials;
- Failure of upstream dams in the same drainage basin;
- Landslides into reservoirs, which cause surges that result in overtopping;
- High winds, which can cause significant wave action and result in substantial erosion;
- Destructive acts of terrorists; and
- Earthquakes, which typically cause longitudinal cracks at the tops of the embankments, leading to structural failure.

Benefits provided by dams include water supplies for drinking, irrigation and industrial uses; flood control; hydroelectric power; recreation; and navigation. At the same time, dams also represent a risk to public safety. Dams require ongoing maintenance, monitoring, safety inspections, and sometimes even rehabilitation to continue safe service.

In the event of a dam failure, the energy of the water stored behind the dam is capable of causing rapid and unexpected flooding downstream, resulting in loss of life and great

Dam Failure

property damage. A devastating effect on water supply and power generation could be expected as well. The terrorist attacks of September 11, 2001 generated increased focus on protecting the country's infrastructure, including ensuring the safety of dams.

One major issue with the safety of dams is their age and the average age of America's 80,000 dams is 51 years. More than 2,000 dams near population centers are in need of repair, according to statistics released in 2009 by the Association of State Dam Safety Officials¹. In addition to the continual aging of dams, there have not been significant increases in the number of safety inspectors resulting in haphazard maintenance and inspection.



The Association of State Dam Safety Officials estimate that \$16 billion will be needed to fix all high-hazard dams, but the total for all state dam-safety budgets is less than \$60 million². The current maintenance budget does not match the scale of America's long-term modifications of its watersheds. Worse still, more people are moving into risky areas. As the American population grows, dams that once could have failed without major repercussions are now upstream of cities and development.

Location

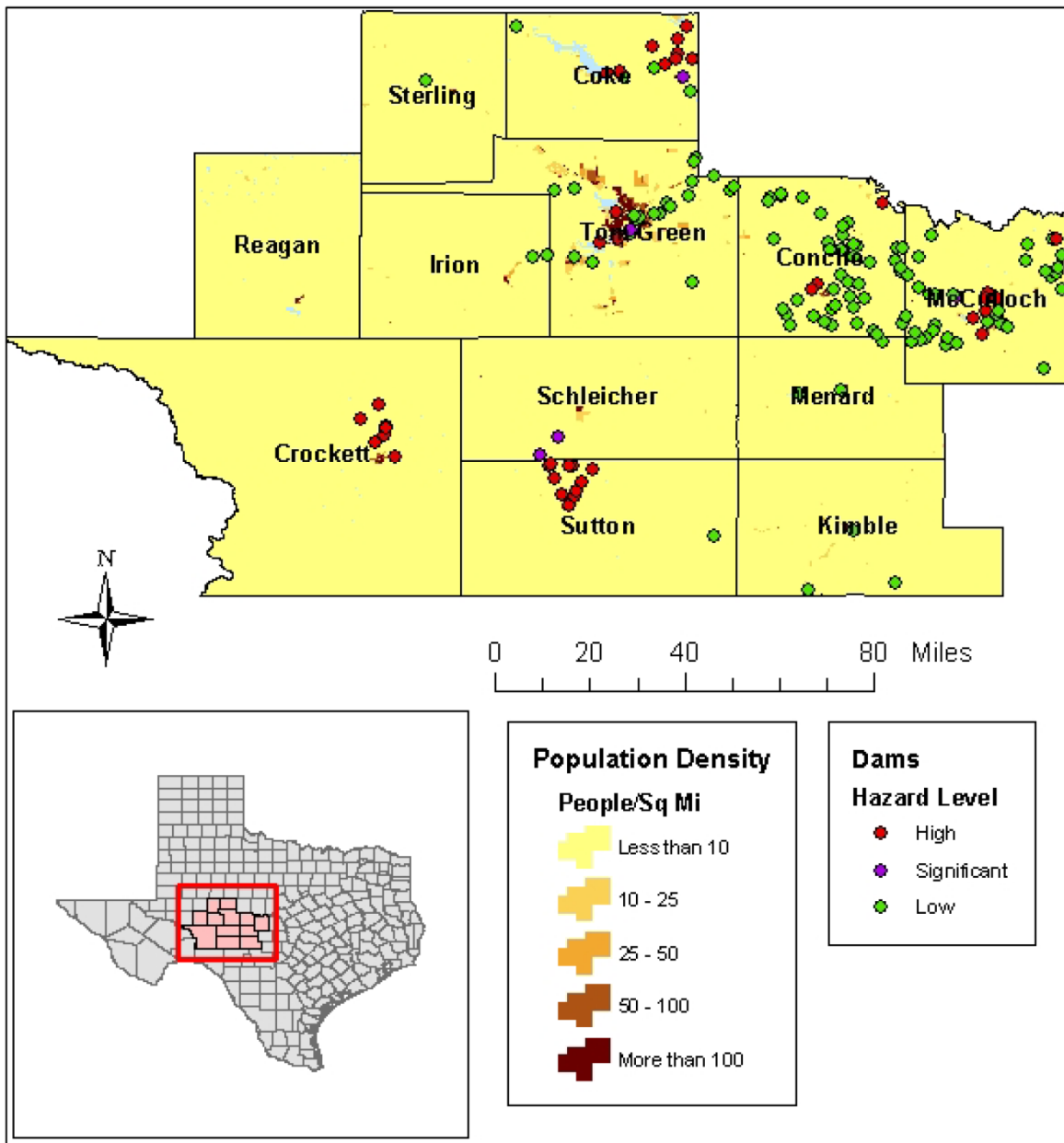
The State of Texas has 7,413 dams, all regulated by the Texas Commission on Environmental Quality (TCEQ). Of these, 854 are considered "high-hazard," 779 are considered "significant-hazard," and 5,780 are considered "low-hazard." According to the American Society of Civil Engineers' "Report Card," the Association of State Dam Safety Officials reports that there are 403 unsafe dams in Texas.³ Although classifications for specific dams in the CVCOG area were not provided by TCEQ, location and volume, elevation, and condition information was factored into the risk ranking. Currently, there are 162 dams within the 12 participating counties in the CVCOG Region.

¹ Association of State Dam Safety Officials, Journal of Dam Safety

² Ibid

³ <http://www.asce.org/reportcard/pdf/tx.pdf>

Figure 10-1. Dam Locations in the CVCOG Region



Total exposure for each dam can be estimated by using 2010 census population and building inventory data from HAZUS-MH, in combination with the location and maximum storage capacity of high and significant hazard dams. For dams with a maximum storage capacity of 100,000 acre-feet or more, all census blocks within five miles are considered to be at risk to potential dam failure hazards. For dams with a maximum storage capacity between 10,000 and 100,000 acre-feet, all census blocks within three miles are considered to be at risk to potential dam failure hazards. For dams with a maximum storage capacity of less than 10,000 acre-feet, all census blocks within one mile are considered to be at risk to

potential dam failure hazards. Population and facilities that could be impacted due to a breach is shown in Table 10-3.

Extent

The extent or magnitude of a dam failure event is described in terms of the classification of the damages that could result from a dam’s failure; not the probability of failure. The National Interagency Committee on Dam Safety defines high hazard dams as those where failure or mis-operation will cause loss of human life. Prior to 2009, high hazard dams were defined as those at which failure or mis-operation would probably cause loss of human life. Dams classified as “significant” were those at which failure or mis-operation probably would not result in loss of human life but could cause economic loss, environmental damage, disruption of lifeline facilities, or other significant damage. Low hazard potential dams are those at which failure or mis-operation probably would not result in loss of human life but would cause limited economic and/or environmental losses. Losses would be limited mainly to the owner’s property. Classifications for extent after 2009 are found in Table 10-1 below.

Table 10-1. Extent Classifications

| HAZARD POTENTIAL CLASSIFICATION | LOSS OF HUMAN LIFE | DAM STORAGE CAPACITY |
|--|-----------------------------------|--------------------------------------|
| Low | None Expected | Less than 10,000 acre-feet |
| Significant | Probable (1 to 6) | Between 10,000 and 100,000 acre-feet |
| High | Loss of Life Expected (7 or More) | 100,000 acre-feet or more |

The extent or average magnitude of a dam failure event that could be expected for each county and the participating jurisdictions therein is shown in Table 10-2. The extent classification was determined by taking the average of dams in each jurisdiction and weighing low hazard dams as a 1, significant hazard dams as a 2, and high hazard dams as a 3 based on the potential severity, warning time, and duration.

Table 10-2. Extent by Jurisdiction

| JURISDICTION | DAMS & CLASSIFICATION | EXTENT CLASSIFICATION | LEVEL OF INTENSITY TO MITIGATE |
|--------------------------|---|-----------------------|--|
| Coke County | 15 – Total 10 – High 1 – Significant 4 – Low | High | Dam failure presents a significant threat as the County has ten high hazard dams and one significant hazard dam. Loss of life is expected and economic loss is significant in the event of a failure. |
| Bronte | None | Low | There aren't any dams located in the city limits; however, a low classification dam is located right outside of the city. |
| Robert Lee | None | Low | There aren't any dams located in the city limits; however, a low classification dam is located right outside of the city. |
| Concho County | 45 – Total 3 – High 42 – Low | Low | The County has three high hazard dams and multiple low hazard dams located in less densely populated areas. Economic losses would be negligible and loss of life is not anticipated in the event of a dam failure. |
| Eden | None | Low | There are no dams located within the city limits. |
| Paint Rock | 1 – Total 1 – Low | Low | The dam located inside the city limits is considered a low hazard dam. |
| Crockett County | 7 – Total 7 – High | High | The County has seven high hazard dams; therefore loss of life is expected and economic impact significant in the event of a failure. |
| (No Incorporated Cities) | | | |
| Irion County | 2 – Total 2 – Low | Low | All dams located inside the County are considered low hazard dams. |
| Mertzon | None | Low | There are no dams located within the city limits. |
| Kimble County | 4 – Total 4 – Low | Low | The County only has low hazard dams. Loss of life is not expected and |

Dam Failure

| JURISDICTION | DAMS & CLASSIFICATION | EXTENT CLASSIFICATION | LEVEL OF INTENSITY TO MITIGATE |
|--------------------------|---|-----------------------|--|
| | | | any economic loss would be negligible. |
| Junction | None | Low | There are no dams located within the city limits; however, there are two low classified dams right outside of the city limits. Loss of life is not expected and any economic loss would be negligible. |
| McCulloch County | 41 – Total 7 – High 1 – Significant 33 – Low *There is 1 – High and 1 – Low dam located in the City of Brady ⁴ | Significant | The County has seven high hazard dams, one significant hazard dam, and multiple low hazard dams. Loss of life is probable and economic impact appreciable in the event of a failure. One of the county’s dams is breached; however this dam is only eight feet with no storage capacity. |
| Melvin | None | Low | There are no dams located within the city limits. |
| Menard County | 3 – Total 3 – Low | Low | The county only has low hazard dams, therefore loss of life is not expected in a breach and any economic loss would be negligible. |
| Menard | None | Low | There are no dams located within the city limits; however, there is one low hazard dam right outside of the city limits. Therefore, loss of life is not expected in a breach and any economic loss would be negligible. |
| Schleicher County | 2 – Total 2 – Significant | Significant | The County has two significant hazard dams, both located in the unincorporated areas. Loss of life is probable and economic impact appreciable in the event of a failure. |
| Eldorado | None | Low | There are no dams located within the city limits and the dams located within the County are low hazard dams. |

⁴ The City of Brady did not participate in the Plan Update.

Dam Failure

| JURISDICTION | DAMS & CLASSIFICATION | EXTENT CLASSIFICATION | LEVEL OF INTENSITY TO MITIGATE |
|-------------------------|---|-----------------------|--|
| Sterling County | 1 – Total 1 – Low | Low | The County only has one dam and it is a low hazard dam, therefore loss of life is not expected in the event of a failure. |
| Sterling | None | Low | There are no dams located within the city limits, and the only dam located in the county is a low hazard dam. |
| Sutton County | 12 – Total 11 – High 1 – Low | High | The County has eleven high hazard dams; therefore in the event of a dam failure loss of life is expected. |
| Sonora | None | Low | There are no dams located within the city limits; however, there are two low hazard dams located right outside of the city limits. |
| Tom Green County | 25 – Total 3 – High 1 – Significant 21 – Low | Significant | Dam failure presents a significant threat as the County has three high hazard dams, one significant hazard dam, and multiple low hazard dams that are located throughout the County. In the event of a dam failure, loss of life is probable and economic loss is appreciable. |
| San Angelo | 8 – Total 1 – High 1 – Significant 6 – Low | Significant | Dam failure presents a significant threat as the City has one high hazard dam, one significant hazard dam, and several low hazard dams. Loss of life is probable and economic impact appreciable in the event of a failure. |

Historical Occurrences

There are about 80,000 dams in the United States today.⁵ Catastrophic dam failures have occurred frequently throughout the past century. Between 1918 and 1958, 33 major U.S. dam failures caused 1,680 deaths. From 1959 to 1965, nine major dams failed worldwide. Some of the largest disasters in the U.S. have resulted from dam failures. More than 520 dam incidents, including 21 dam failures, were reported in the past two years to the

⁵ Federal Emergency Management Agency, Dam Safety Program, <http://www.fema.gov/hazards/damsafety/>

Dam Failure

National Performance of Dams Program, which collects and archives information on dam performance from state and federal regulatory agencies and dam owners.

The State of Texas has not experienced loss of life or extensive economic damage due to a dam failure since the first half of the twentieth century. However, due to limited state staff, many incidents are not reported and, therefore, the actual number of incidents is likely to be greater.

There has not been a recorded dam failure event for any of the participating jurisdictions in the planning area.

Probability of Future Events

No historical events of dam failure have been recorded in the CVCOG Region, though the risk of dam failure is monitored closely. Due the lack of historical occurrences, the probability of a future event is unlikely, meaning an event is possible within the next ten years.

Vulnerability and Impact

Significant and high hazard dams are located in both rural and populated areas in the CVCOG planning area. Although low hazard dams are those at which failure or mis-operation probably would not result in loss of human life and would cause limited economic and/or environmental losses, damage to agriculture and housing is possible due to the amount of low hazard dams in each county.

Flooding is the most prominent effect of dam failure. If the dam failure is severe enough, a large amount of water would enter the downstream waterways forcing them out of their banks.

Although the extent classifications for Coke and McCulloch counties are considered significant, the areas located near the dams are not densely populated. Populations in the planning area and critical facilities in both counties would not be directly impacted. However, there may be significant environmental effects that result in flooding that disperses debris and hazardous materials downstream, damaging local ecosystems.

In contrast, Tom Green County is the most populated county in the Concho Valley planning area. A dam failure in this county could block traffic and cause power outages in the City of San Angelo and disrupt utilities systems in the city and unincorporated areas of the county. Water could be contaminated if the breach is severe, and the SCCI Hospital and Shannon Medical Center in addition to schools, fire stations and police stations in

Dam Failure

San Angelo and unincorporated areas of the county would be vulnerable to dam failure. Surge waves resulting from dam breaks have the potential to create major losses.

Annualized loss-estimates for dam failure and a breakdown of potential dollar losses of critical facilities, infrastructure and lifelines is based on flooding and shown in Table 10-3. The results of the analysis place the following percentages at risk to flood: 5.21 percent of the population, 8.78 percent of housing units, and 5.28 percent of building value.

Table 10-3. Vulnerability to Flooding from Dam Failure⁶

| JURISDICTION | 2010 POPULATION | | BUILDING VALUE ⁷ | | HOUSING UNITS | |
|--------------------------|-----------------|---------------------|-----------------------------|---------------------|-----------------|---------------------|
| | By Jurisdiction | Vulnerable to flood | By Jurisdiction | Vulnerable to flood | By Jurisdiction | Vulnerable to flood |
| Coke County | 3,320 | | \$291.4 | | 2,667 | |
| Bronte | 999 | 82 | \$54.9 | \$6.6 | 473 | 44 |
| Robert Lee | 1,049 | 35 | \$70.8 | \$2.6 | 636 | 19 |
| Concho County | 4,087 | | \$187.2 | | 1,637 | |
| Eden | 2,766 | 53 | \$92.5 | \$3.3 | 581 | 25 |
| Paint Rock | 273 | 26 | \$11.3 | \$1.0 | 128 | 12 |
| Crockett County | 3,719 | 1,139 | \$263.7 | \$58.4 | 1,866 | 559 |
| (No Incorporated Cities) | | | | | | |
| Irion County | 1,599 | | \$112.3 | | 856 | |
| Mertzton | 781 | 62 | \$38.6 | \$3.3 | 358 | 39 |
| Kimble County | 4,607 | 652 | \$345.1 | \$51.9 | 3,371 | 506 |
| Junction | 2,574 | 212 | \$152.9 | \$14.9 | 1,270 | 118 |
| McCulloch County | 8,283 | | \$459.6 | | 4,302 | |
| Melvin | 178 | 24 | \$8.9 | \$1.4 | 113 | 20 |
| Menard County | 2,242 | | \$148.4 | | 1,702 | |
| Menard | 1,471 | 580 | \$69.4 | \$31.7 | 828 | 302 |
| Reagan County | 3,367 | | \$178.8 | | 1,372 | |
| Big Lake | 2,936 | | | | 1,089 | |
| Schleicher County | 3,461 | | \$163.7 | | 1,489 | |
| Eldorado | 1,951 | 27 | \$95.8 | \$1.3 | 838 | 10 |
| Sterling County | 1,143 | | \$89.1 | | 615 | |
| Sterling | 888 | 58 | \$65.8 | \$6.0 | 419 | 27 |

⁶ N/A is listed for dollar amounts less than \$5,000 and populations less than 50.

⁷ Values are in millions of dollars.

Dam Failure

| JURISDICTION | 2010 POPULATION | | BUILDING VALUE ⁷ | | HOUSING UNITS | |
|-------------------------|-----------------|---------------------|-----------------------------|---------------------|-----------------|---------------------|
| | By Jurisdiction | Vulnerable to flood | By Jurisdiction | Vulnerable to flood | By Jurisdiction | Vulnerable to flood |
| Sutton County | 4,128 | 886 | \$259.0 | \$40.4 | 2,031 | 366 |
| Sonora | 3,027 | 735 | \$157.0 | \$34.0 | 1,323 | 299 |
| Tom Green County | 110,224 | 5,145 | \$6,423.0 | \$320.2 | 46,571 | 2,360 |
| San Angelo | 93,200 | 2,707 | \$5,600.0 | \$195.8 | 39,548 | 1,304 |
| COUNTY TOTALS | 150,180 | 7,822 | \$8,921 | \$471 | 68,479 | 6,010 |

A dam breach could result in multiple deaths with facilities being shut down for 30 days or more, and more than 50 percent of property destroyed or damaged. For these reasons, creating mitigations actions to remove or protect people and structures from the path of destruction is necessary in order to minimize impact from dam failure.

WINTER STORM

HAZARD DESCRIPTION 1
LOCATION..... 1
EXTENT..... 1
HISTORICAL OCCURRENCES 3
 SIGNIFICANT PAST EVENTS..... 4
PROBABILITY OF FUTURE EVENTS 5
VULNERABILITY AND IMPACT 5

Hazard Description

A severe winter storm event is identified as a storm with snow, ice, or freezing rain—all of



which can cause significant problems for area residents. Winter storms are associated with freezing or frozen precipitation such as freezing rain, sleet, snow and the combined effects of winter precipitation and strong winds. Wind chill is a function of temperature and wind. Low wind chill is a product of high winds and freezing temperatures. January is the month when snow, sleet or freezing rain is most likely to be observed; yet, winter weather conditions can occur at any time during the winter and early spring months.

Location

Winter storms vary in location, intensity and duration but are considered rare occurrences in CVCOG communities. It is assumed that all of the jurisdictions are uniformly exposed to winter storm events; therefore, all areas of the counties are equally exposed.

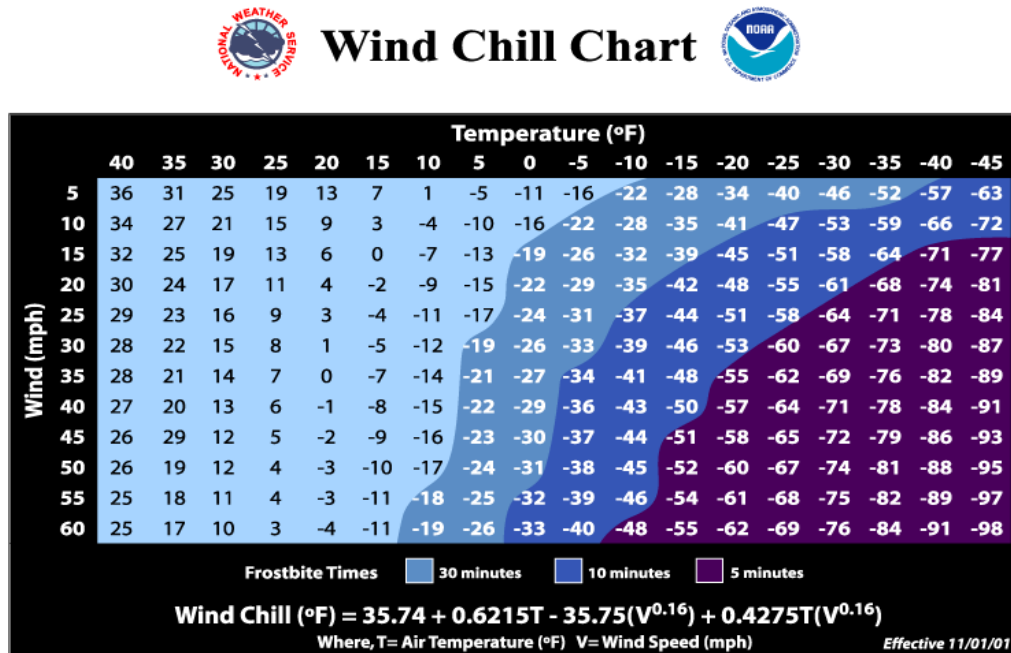
Extent

Table 11-1 is the extent scale for the CVCOG Region. This chart includes temperatures, which can be read in conjunction with the wind-chill factor chart Figure 11-1. This is an index developed by the National Weather Service, although the chart is not applicable when temperatures are over 50° or winds are calm.

Table 11-1. Magnitude of Severe Winter Storms

| INTENSITY | TEMPERATURE RANGE | EXTENT DESCRIPTION |
|-------------|-------------------|--|
| Mild | 40° – 50° | Winds less than 10 mph and freezing rain or light snow falling for short durations with little or no accumulations |
| Moderate | 30° – 40° | Winds 10 – 15 mph and sleet and/or snow up to 4 inches |
| Significant | 25° – 30° | Intense snow showers accompanied with strong gust winds, between 15 and 20 mph with significant accumulation |
| Extreme | 20° – 25° | Wind driven snow that reduces visibility, heavy winds (between 20 to 30 mph), and sleet or ice up to 5 millimeters in diameter |
| Severe | Below 20° | Winds of 35 mph or more and snow and sleet greater than 4 inches |

Figure 11-1. Wind Chill Chart



Winter Storm

Wind chill temperature is a measure of how cold the wind makes real air temperature feel to the human body, similar to the heat index for extreme heat. Since wind can dramatically accelerate heat loss from the body, a blustery 30°F day would feel just as cold as a calm day with 0°F temperatures. The Concho Valley Region is part of the Panhandle Plains in Texas for the northern half of the region and the Hill Country for the southern counties. As a whole this region experiences similar winter events.

Winter nights for the Concho Valley planning area commonly see temperatures fall below the freezing mark, 32 °F. From the past occurrence data, all counties and participating jurisdictions have experienced ice storms, heavy snow, winter storms and winter weather.

The average number of cold days is similar for each county. Therefore the intensity or extent of a winter storm event to be mitigated for the area ranges from mild to significant according to the definitions at Table 11-1.

Historical Occurrences

Table 11-2 shows historical occurrences for the area since 1950, as well as the type of event provided by the National Climatic Data Center (NCDC). Although there have been relatively few storms, it is likely that a high number of occurrences have gone unreported. Additionally, historical winter storm information, as provided by the NCDC, shows winter storm activity across a multi-county forecast area for each event. In some instances within the study area, a single record could consist of up to 27 counties including some or all of the ones participating in this risk assessment. Therefore, an appropriate percentage of the total property and crop damage reported for the entire forecast area has been allocated to each participating county impacted by each event.

Table 11-2. Historical Winter Storm Events by Jurisdiction, 1950-2010)

| COUNTY | NUMBER OF REPORTED EVENTS | TYPES OF EVENTS |
|----------|---------------------------|---|
| Coke | 13 | Ice Storm, Heavy Snow, Winter weather/mix, and Winter Storm |
| Concho | 9 | Ice Storm, Heavy Snow, Winter weather/mix, and Winter Storm |
| Crockett | 15 | Ice, Ice Storm, Heavy Snow, and Winter Storm |
| Irion | 10 | Ice Storm, Heavy Snow, Winter weather/mix, and Winter Storm |

Winter Storm

| COUNTY | NUMBER OF REPORTED EVENTS | TYPES OF EVENTS |
|--------------|---------------------------|--|
| Kimble | 12 | Ice Storm, Heavy Snow, and Winter Storm |
| McCulloch | 10 | Ice Storm, Heavy Snow, Winter weather, and Winter Storm |
| Menard | 13 | Ice Storm, Heavy Snow, Winter weather, and Winter Storm |
| Reagan | 8 | Ice Storm, Heavy Snow, Winter weather, and Winter Storm |
| Schleicher | 13 | Ice, Ice Storm, Heavy Snow, Winter Storm, and Winter weather |
| Sterling | 12 | Ice Storm, Heavy Snow, Winter weather/mix, and Winter Storm |
| Sutton | 14 | Ice Storm, Heavy Snow, and Winter Storm |
| Tom Green | 10 | Ice Storm, Heavy Snow, Winter weather/mix, and Winter Storm |
| TOTAL | 139 | |

Significant Past Events

24 November 1996

This event affected eight of the twelve counties in the planning area. A vigorous upper level storm system interacted with a cold Canadian air mass to produce snow, sleet, and freezing rain on the Nov 24. Total sleet and snowfall amounts were generally between two and six inches over the Concho Valley, northern Edwards Plateau, and northwest Hill Country. The highest amounts were generally in the northwest Hill Country, where eight inches of snow fell at Junction. Icy roads proved hazardous to drivers and numerous accidents occurred throughout the area. There were a few fatalities and several injuries. The cold moisture damaged the unharvested cotton in Tom Green County.

24 February 2003 – McCulloch County

An arctic cold front barreled through West Central Texas on the Feb. 23, dropping temperatures into the teens and 20s across all of the area. Strong overrunning began during the morning of the Feb. 24; producing thunderstorms that dropped large amounts of sleet and even hail to one half inch in diameter. The Big Country saw one to three inches of

sleet during the afternoon and early evening of the 24th, with the activity slipping to the southeast into the Heartland during the evening of the 24th. One-half to one inch of sleet was reported across the Heartland. With temperatures remaining below freezing until the morning of the 26th, the accumulated ice remained on area roadways, with numerous accidents reported. There were also some minor injuries reported in the Abilene area, due to people slipping and falling down on the ice.

Probability of Future Events

A total of 24 unique events have impacted the CVCOG Region from 1950 to 2010. Although the counties reported a total of 139 incidents over the 60-year period, indicating that storms can impact the 12-county planning region as frequently as two winter storm events per year. Hence it is likely that the region will experience a winter storm event; an event is probable within the region within the next three years.

Vulnerability and Impact

All buildings and facilities are considered to be equally exposed and vulnerable to this hazard and could potentially be impacted because winter storm events are widespread within the planning area. Although a winter storm is a slow onset hazard with generally six to twelve hours of warning time, utility disruptions from winter storms can severely impact people and critical infrastructure. Ice and cold temperatures can lead to frozen water pipes and broken power lines due to a buildup of ice or downed trees, all of which can disrupt services. If the disruption continues it can lead to energy shortages and higher prices.

While all populations and infrastructure are uniformly exposed in the CVCOG Region, the elderly and those with weakened immune systems are at a greater risk to death from hypothermia in extreme events. Homes with a poor foundation may have cracks or water damage from broken pipes in extreme events and residences with insufficient insulation will see an increased cost for heating. Hospitals and emergency facilities without back-up or emergency generators will also be significantly impacted in a severe winter storm event. In addition fires during winter storms present a greater danger because water supplies may freeze and impede firefighting efforts.

Historical evidence shows that most of the area is susceptible to winter storm activity; however, past reported property damages indicate that, while winter events (typically consisting of snow and ice) do occur, their economic impacts are typically not severe across the entire study area.

Loss estimates consider an appropriate percentage of the total property and crop damage reported for the entire forecast area since damages are reported as a sum of all impacted counties' damages. Table 11-3 below summarizes the reported damages by county. Historic

loss estimates (in 2009 dollars) total \$19.7 million over the 12 county region during the 60-year reporting period from the NCDC, providing a regional annual loss estimate of \$330,000.

Table 11-3. Historic Damage Estimates by County

| COUNTY | NUMBER OF REPORTED EVENTS | REPORTED DAMAGES | ANNUALIZED LOSS (AL) |
|------------------------------|---------------------------|---------------------|----------------------|
| Coke | 13 | \$2,644,904 | \$44,081.73 |
| Concho | 9 | \$1,593,254 | \$26,554.23 |
| Crockett | 15 | \$1,575,575 | \$26,259.58 |
| Irion | 10 | \$1,382,757 | \$23,045.95 |
| Kimble | 12 | \$1,618,060 | \$26,967.67 |
| McCulloch | 10 | \$1,648,691 | \$27,478.18 |
| Menard | 13 | \$1,618,282 | \$26,971.37 |
| Reagan | 8 | \$1,378,728 | \$22,978.80 |
| Schleicher | 13 | \$1,599,724 | \$26,662.07 |
| Sterling | 12 | \$1,382,757 | \$23,045.95 |
| Sutton | 14 | \$1,672,868 | \$27,881.13 |
| Tom Green | 10 | \$1,594,393 | \$26,573.22 |
| TOTALS FOR STUDY AREA | 139 | \$19,709,993 | \$328,499.88 |

The potential severity of impact for any one county in the planning area can be considered limited; critical facilities and services would not be expected to be shut down for more than 24 hours and less than 10 percent of property would be destroyed.

EXTREME HEAT

| | |
|------------------------------------|---|
| HAZARD DESCRIPTION | 1 |
| LOCATION..... | 1 |
| EXTENT..... | 1 |
| HISTORICAL OCCURRENCES..... | 4 |
| SIGNIFICANT PAST EVENT | 4 |
| PROBABILITY OF FUTURE EVENTS | 5 |
| VULNERABILITY AND IMPACT | 5 |

Hazard Description

Severe, excessive summer heat is characterized by a combination of exceptionally high temperatures and humidity. When these conditions persist over a period of time, it is called a heat wave. Higher than normal humidity and temperatures can cause an extreme heat event or heat wave to occur. A heat wave is a prolonged period of excessive heat, most often in very humid conditions. The National Center for Environmental Health reports from 1979 to 1999, excessive heat exposure caused 8,015 deaths in the United States.

Location

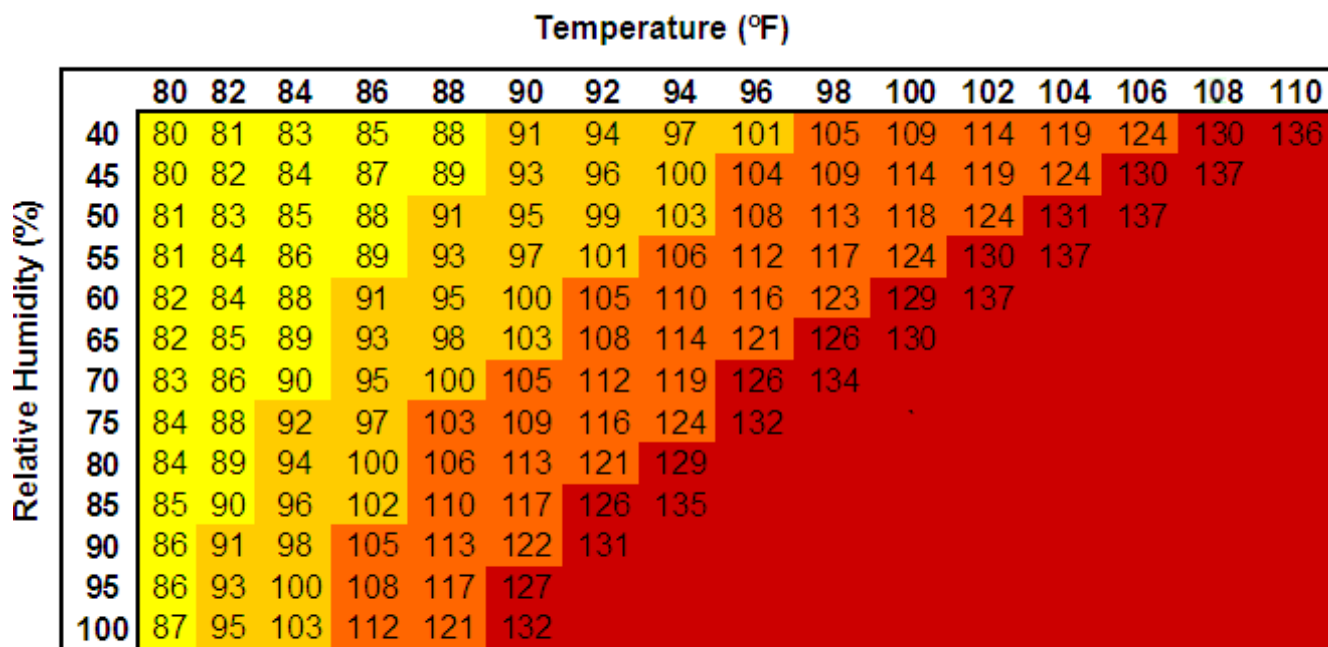
Though different temperatures for extreme heat have been recorded at various locations throughout the CVCOG Region, there is no specific geographic scope to the extreme heat hazard. Extreme heat could occur anywhere in the planning area.



Extent

The magnitude or intensity of an extreme heat event is measured according to temperature in relation to the percentage of humidity. According to the National Oceanic Atmospheric Administration (NOAA), this relationship is referred to as the “Heat Index,” and is depicted in Figure 12-1. This index measures how hot it feels outside when humidity is combined with high temperatures.

Figure 12-1. Extent Scales for Extreme Summer Heat¹



The extent scale in Figure 12-1 displays varying degrees of caution depending on the relative humidity combined with the temperature. For example, when the temperature is at 90°F or lower, caution should be exercised if the humidity level is at or above 40 percent.

The shaded zones on the chart indicate varying symptoms or disorders that could occur depending on the magnitude or intensity of the event. “Caution” is the first level of intensity where fatigue due to heat exposure is possible. “Extreme Caution” indicates that sunstroke, muscle cramps or heat exhaustion are possible, whereas a “Danger” level means that these symptoms are likely. “Extreme Danger” indicates that heat stroke is likely.

Based on the extent scale in Figure 12-1, an extreme summer heat event could occur with an air temperature as low as 80°F if the percentage of humidity was equal to or greater than 40 percent. Even though this temperature seems relatively low, given the high humidity, fatigue is possible. Citizens, especially children and the elderly should exercise caution by staying out of the heat for prolonged periods at this temperature and relative humidity. As the chart indicates fatigue is only possible, but can occur with prolonged exposure or physical activity. Citizens who work outdoors should exercise caution even at

¹ Source: NOAA

Extreme Heat

the lower temperature if the humidity is at a high degree. With prolonged exposure or physical activity fatigue could set in, causing dizziness, headaches or nausea.

Figure 12-2. Average Daily Maximum Heat Index²

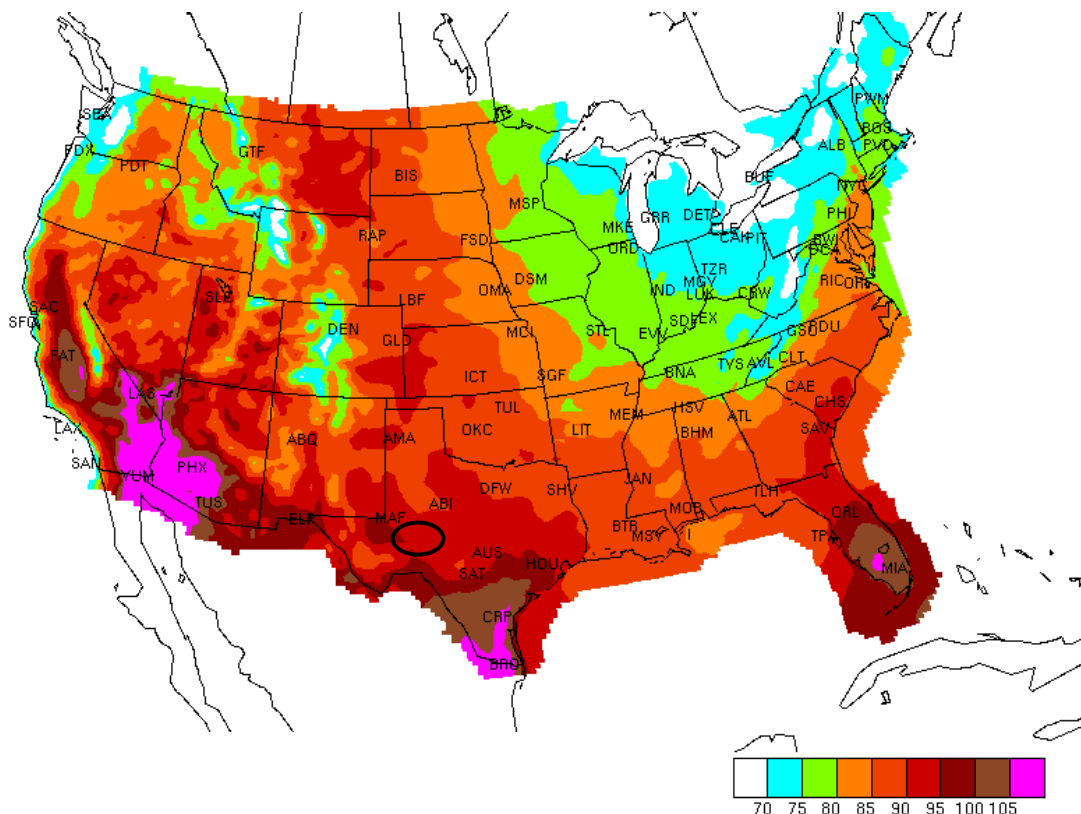


Figure 12-2 displays the daily maximum heat index as derived from NOAA based on data compiled from 1849 to 2009. Although the CVCOG Region spans 13 counties, the communities therein experience similar temperatures due to their location within the Panhandle Plains and Hill Country Regions of Texas. The dark circle on the map in Figure 12-2 shows the approximate location of the CVCOG Region. On average the daily maximum heat average is between 95-100 degrees Fahrenheit.

Based on this information the average extent for the communities in the CVCOG Region is “Danger”, which indicates that sunstroke, muscle cramps and heat exhaustion are likely. Because the CVCOG Region is affected seasonally by extreme summer heat, the extent scales provide a means for better targeting mitigation actions to protect lives. Using the extent scale in Figure 12-1 to combine heat and humidity allows officials to better predict events and more accurately warn citizens of danger.

² Source: NOAA

Historical Occurrences

According to the National Climatic Data Center (NCDC), from 1950 to 2010 one extreme heat event affected counties in the planning area. Table 12-1 below summarizes heat event related deaths in Texas for the period of 1994 to 2011. While it is difficult to discern impacts by County for a hazard whose damages are regional in scale, general characterization of extreme heat impacts can be determined and the significant historic event is profiled in this section.

Table 12-1. Extreme Heat Related Deaths in Texas

| YEAR | DEATHS |
|------|--------|
| 1994 | 1 |
| 1995 | 12 |
| 1996 | 10 |
| 1997 | 2 |
| 1998 | 66 |
| 1999 | 22 |
| 2000 | 71 |
| 2001 | 20 |
| 2002 | 1 |
| 2003 | 0 |
| 2004 | 3 |
| 2005 | 49 |
| 2006 | 2 |
| 2007 | 2 |
| 2008 | 7 |
| 2009 | 6 |
| 2010 | 4 |
| 2011 | 20 |

Significant Past Event

June 1994

It impacted 7 of the 12 counties in the study area. In June of 1994, an area of strong high pressure caused a record heat wave across West Texas. This event allowed temperatures to hold between 110 and 120 degrees through the last week in June. As a result, a 40 year-old male construction worker was killed by heat stroke and an elderly female was injured by heat stroke; both occurred in El Paso, which is adjacent to the planning area but not within

the Concho Valley COG. Unfortunately, fatalities due to extreme heat are not uncommon in the State of Texas as the table below presents.

Probability of Future Events

Based on reports of events, the planning area can expect a frequency of return that is probable within the ten years. Seasonal-mean temperature probability has shifted dramatically over the past three decades. It is difficult to determine likelihood of future specific occurrences on a regional scale; however, the likelihood of occurrence of excessive summer heat event in the CVCOG Region as a whole is likely. Extreme drought conditions and above-average temperatures for 2009 and 2010 have affected all of the participating jurisdictions' probability of experiencing an extreme heat event. In the past, multiple counties throughout the region have issued burn bans to prevent the occurrence of wildfires due to extreme heat and dry conditions.

Vulnerability and Impact

There is no defined geographic boundary for excessive summer heat events. While all of the planning area is exposed to extreme temperatures, existing buildings, infrastructure and critical facilities are not considered vulnerable to significant damage caused by extreme heat events. Therefore, any estimated property losses associated with these hazards are anticipated to be minimal across the area. However, extreme temperatures do present significant life and safety threats to the population and to agriculture in the CVCOG Region. As a result, excessive summer heat deserves mitigation consideration by the participating jurisdictions.

Due to the limited variance in terms of average days of heat for jurisdiction, it is difficult to state with accuracy detailed variables among participating communities in terms of vulnerability. However, the major human risks associated with severe summer heat include: heat cramps; sunburn; dehydration; fatigue; heat exhaustion; and even heat stroke. The most vulnerable population to heat casualties are children and the elderly or infirmed, who frequently live on low fixed incomes and cannot afford to run air-conditioning on a regular basis. This population is sometimes isolated, with no immediate family or friends to look out for their well-being. Another segment of the population at risk is those whose jobs consist of strenuous labor outdoors. Livestock and crops can also become stressed, decreasing in quality or in production, during times of extreme heat.

Loss estimates due to extreme heat total \$350,000 for the planning area, which may include damages from other counties that are in the impact area but not in the planning area. Similarly, deaths from extreme heat cannot be specified.

Extreme Heat

The potential impact of excessive summer heat for the CVCOG Region is limited, resulting in few, if any, injuries. Injuries and illness are expected to be treatable with first aid, critical facilities and emergency services would not be expected to be shut down though no more than 24 hours in the worst case. No property damage is expected though crop damages are more commonly the results of prolonged extreme heat events.

DROUGHT

HAZARD DESCRIPTION 1
LOCATION..... 2
EXTENT..... 2
HISTORICAL OCCURRENCES 4
 SIGNIFICANT PAST EVENTS..... 4
PROBABILITY OF FUTURE EVENTS 5
VULNERABILITY AND IMPACT 5

Hazard Description

Drought is a period of time without substantial rainfall that persists from one year to the next. Drought is a normal part of virtually all climatic regions, including areas with high and low average rainfall. Drought is the consequence of anticipated natural precipitation reduction over an extended period of time, usually a season or more in length. Droughts can be classified as meteorological, hydrologic, agricultural, and socioeconomic. Table 13-1 presents definitions for these different types of drought.

Droughts are one of the most complex of all natural hazards, as it is difficult to determine their precise beginning or end. In addition, droughts can lead to other hazards, such as extreme heat and wildfires. Their impact on wildlife and area farming is enormous, often killing crops, grazing land, edible plants and even in severe cases, trees. A secondary hazard to drought is wildfire because dying vegetation serves as a prime ignition source. Therefore, a heat wave combined with a drought is a very dangerous situation.

Table 13-1. Drought Classification Definitions¹

| | |
|-------------------------------|---|
| METEOROLOGICAL DROUGHT | The degree of dryness or departure of actual precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales. |
| HYDROLOGIC DROUGHT | The effects of precipitation shortfalls on stream flows and reservoir, lake, and groundwater levels. |
| AGRICULTURAL DROUGHT | Soil moisture deficiencies relative to water demands of plant life, usually crops. |

¹ Source: Multi-Hazard Identification and Risk Assessment: A Cornerstone of the National Mitigation Strategy, FEMA

SOCIOECONOMIC DROUGHT

The effect of demands for water exceeding the supply as a result of a weather-related supply shortfall.

Location

Droughts occur regularly throughout Texas and the CVCOG Region and are a normal condition. However, droughts can vary greatly in their intensity and duration. There is no distinct geographic boundary to drought; therefore, the CVCOG Region is equally at risk.

Extent

The Palmer Drought Index is used to measure the extent of drought by measuring the duration and intensity of long-term drought-inducing circulation patterns. Long-term drought is cumulative, with the intensity of drought during the current month dependent upon the current weather patterns plus the cumulative patterns of previous months. The hydrological impacts of drought (e.g., reservoir levels, groundwater levels, etc.) take longer to develop. Table 13-2 depicts magnitude of drought while Table 13-3 describes the classification descriptions.

Table 13-2. Palmer Drought Index

| DROUGHT INDEX | DROUGHT CONDITION CLASSIFICATIONS | | | | | | |
|----------------|-----------------------------------|----------------|----------------|----------------|------------------|----------------|-----------------|
| | Extreme | Severe | Moderate | Normal | Moderately moist | Very moist | Extremely moist |
| Z Index | -2.75 and below | -2.00 to -2.74 | -1.25 to -1.99 | -1.24 to +.99 | +1.00 to +2.49 | +2.50 to +3.49 | n/a |
| Meteorological | -4.00 and below | -3.00 to -3.99 | -2.00 to -2.99 | -1.99 to +1.99 | +2.00 to +2.99 | +3.00 to +3.99 | +4.00 and above |
| Hydrological | -4.00 and below | -3.00 to -3.99 | -2.00 to -2.99 | -1.99 to +1.99 | +2.00 to +2.99 | +3.00 to +3.99 | +4.00 and above |

Table 13-3. Palmer Drought Category Descriptions²

| CATEGORY | DESCRIPTION | POSSIBLE IMPACTS | PALMER DROUGHT INDEX |
|----------|---------------------|---|----------------------|
| D0 | Abnormally Dry | Going into drought: short-term dryness slowing planting, growth of crops or pastures; fire risk above average. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered. | -1.0 to -1.9 |
| D1 | Moderate Drought | Some damage to crops, pastures; fire risk high; streams, reservoirs, or wells low, some water shortages developing or imminent, voluntary water use restrictions requested. | -2.0 to -2.9 |
| D2 | Severe Drought | Crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed. | -3.0 to -3.9 |
| D3 | Extreme Drought | Major crop/pasture losses; extreme fire danger; widespread water shortages or restrictions. | -4.0 to -4.9 |
| D4 | Exceptional Drought | Exceptional and widespread crop/pasture losses; exceptional fire risk; shortages of water in reservoirs, streams, and wells, creating water emergencies. | -5.0 or less |

Drought is monitored nationwide by the National Drought Mitigation Center (NDMC). Indicators are used to describe broad scale drought conditions across the U.S. Indicators correspond to the intensity of drought.

Based on the historical occurrences for drought, the area can anticipate a range of drought from abnormally dry to exceptional or D0 to D4 based on the Palmer Drought Category. Data from the NDMC gathered from 1985³ to the present indicates that the CVCOG Region experiences drought uniformly, with the planning area experiencing a D2 or Severe Drought on average. Therefore, the communities in the planning area are equally susceptible to drought events and should mitigate to an extent of severe drought.

² Source: National Drought Mitigation Center

³ Historical maps of the Palmer Drought Index are available at:
<http://www.drought.unl.edu/Planning/Monitoring/HistoricalPDSIMaps.aspx>

Historical Occurrences

Due to the seasonal, long term, and widespread nature of the drought hazard, events occur over the course of one year and the same drought event will be reported by multiple counties in a region. One drought event will not occur repeatedly in a single year.

Based on this data, all twelve counties were reporting impacts from seven unique (separate) drought events. Table 13-4 below shows the drought event year and number of events each county reported during the period 1996 – 2010. According to reports from the National Climatic Data Center (NCDC) seven unique events were reported for the area.

Table 13-4. Historical Drought Events by Jurisdiction, 1996-2010

| COUNTY | YEAR OF EVENT | TOTAL |
|-----------------------|---|----------|
| Coke | 1998, 2000, 2006, 2009 | 4 |
| Concho | 1998, 2000, 2006, 2009 | 4 |
| Crockett | 1998, 2000, 2006, 2009 | 4 |
| Irion | 1998, 2000, 2006, 2009 | 4 |
| Kimble | 1998, 2000, 2008, 2009 | 4 |
| McCulloch | 1998, 2000, 2006, 2009 | 4 |
| Menard | 1998, 2000, 2005, 2006, 2009 | 5 |
| Reagan | 1996, 1998, 2006 | 3 |
| Schleicher | 1998, 2000, 2006, 2009 | 4 |
| Sterling | 1998, 2000, 2006, 2009 | 4 |
| Sutton | 1998, 2000, 2006, 2008 | 4 |
| Tom Green | 1998, 2000, 2006, 2009 | 4 |
| UNIQUE EVENTS: | 1996, 1998, 2000, 2005, 2006, 2008, 2009 | 7 |

Significant Past Events

August 1998

A devastating drought began in 1998 and continued through the end of summer with little or no rain falling, affecting 11 of the 12 counties in the study area. The two main crops across the area, wheat and cotton, were both near total losses, with additional losses to the cattle, sheep and goat industries. Preliminary loss figures top \$150 million.

May 2000

This event affected 11 of the 12 counties in the planning region. A devastating drought continued across West Central Texas through the month of May. Information from the

USDA indicate that crop losses total in excess of \$85 million for this spring alone, not including losses to the cattle and sheep ranching industries.

Probability of Future Events

Based on occurrence and frequency of past events, it can be expected that a drought event will impact somewhere in the region approximately every other year. Hence, the probability of a future drought occurrence is likely, with an event is probable within three years.

Vulnerability and Impact

Droughts impact large areas and cross jurisdictional boundaries, hence all existing and future buildings, facilities and populations are exposed to this hazard and could potentially be impacted. Since all jurisdictions are considered to be equally affected by drought, each jurisdiction will not be assessed independently.

Droughts may cause a shortage of water for human and industrial consumption, hydroelectric power, recreation and navigation. Water quality may also decline and the number and severity of wildfires may increase. Severe droughts may result in the loss of agricultural crops and forest products, undernourished wildlife and livestock, lower land values, and higher unemployment. Therefore, not only are agricultural businesses vulnerable to drought, but also hydro-electric power and other water-dependent industries, such as forestry and tourism.

The most direct impact of drought is economic rather than loss of life or immediate destruction of property. This can be significant as it spans many sectors of the economy and reaches well beyond the area experiencing physical drought as water is integral to our ability to produce goods and provide services.

Annual historic losses were estimated based on the recent 15 years of event data (NCDC). Potential loss is simply a projection of historic loss, as are all loss estimates in this risk assessment; however, drought is only based on 15 years of available data where all other hazards were based on 60 years of recording events. Property and crop damages are presented by county and year in Table 13-5 below.

Table 13-5. Drought Event Damage Totals (1996-2010)

| COUNTY | PROPERTY DAMAGES (2009 \$\$) | CROP DAMAGES (2009 \$\$) | ANNUAL LOSS (AL) ESTIMATE |
|-----------------------|-------------------------------------|---------------------------------|----------------------------------|
| Coke | \$0 | \$12,498,993 | \$833,266 |
| Concho | \$0 | \$12,498,993 | \$833,266 |
| Crockett | \$25,254 | \$12,751,539 | \$851,786 |
| Irion | \$0 | \$12,498,993 | \$833,266 |
| Kimble | \$25,254 | \$12,759,549 | \$852,320 |
| McCulloch | \$0 | \$12,498,993 | \$833,266 |
| Menard | \$7,927,956 | \$12,759,549 | \$1,379,167 |
| Reagan | \$1,572,435 | \$24,999,483 | \$1,771,461 |
| Schleicher | \$25,254 | \$12,751,539 | \$851,786 |
| Sterling | \$0 | \$12,498,993 | \$833,266 |
| Sutton | \$25,254 | \$12,751,539 | \$851,786 |
| Tom Green | \$0 | \$12,498,993 | \$833,266 |
| SUBTOTALS: | \$9,601,407 | \$163,767,156 | N/A |
| AVERAGES: | \$800,117 | \$13,647,263 | \$963,159 |
| TOTAL DAMAGES: | | \$173,368,563 | |

Based on the previous occurrences and potential exposure for the hazard, the potential severity of impact of droughts is limited; critical facilities and services would not be expected to be shut down for more than 24 hours and less than 10 percent of property would be destroyed.

HURRICANE

| | |
|---|----------|
| HAZARD DESCRIPTION | 1 |
| LOCATION | 1 |
| EXTENT | 2 |
| HISTORICAL OCCURRENCES | 2 |
| SIGNIFICANT PAST EVENT | 4 |
| PROBABILITY OF FUTURE EVENTS | 4 |
| VULNERABILITY AND IMPACT | 4 |

Hazard Description

According to the National Oceanic and Atmospheric Administration (NOAA), a hurricane is an intense tropical weather system of strong thunderstorms with well-defined surface circulation and maximum sustained winds of 74 mph or higher. In the Northern Hemisphere circulation of winds near the Earth’s surface is counterclockwise.

Hurricanes often begin as tropical depressions that intensify into tropical storms when maximum sustained winds increase to between 35-64 knots (39 – 73 mph). At these wind speeds, the storm becomes more organized and circular in shape and begins to resemble a hurricane. Tropical storms can be equally problematic without ever becoming a hurricane, resulting in high winds and heavy rainfall, as Tropical Storm Erin did for Crockett County in August 2007. Once sustained winds reach or exceed 74 mph, the storm becomes a hurricane. The intensity of a land falling hurricane is expressed in categories relating wind speeds and potential damage. Tropical storm-force winds are strong enough to be dangerous to those caught in them.

Location

Although all of the counties in the CVCOG Region are located inland from the coast, they are still susceptible to the indirect threats of a hurricane, including high winds and flooding. The planning area is outside of the hurricane wind speed hazard areas and is approximately 100 miles northwest of San Antonio, which is the inland extremity of hurricane wind hazard zones. Due to the location outside of the hazard areas, the CVCOG has played host to coastal area residents who evacuate during hurricane events. Location of previous hurricane tracks is shown in Figure 14-1.

Extent

Hurricanes are categorized according to the strength and intensity of their winds using the Saffir-Simpson Hurricane Scale (See Table 14-1). A Category 1 storm has the lowest wind speeds, while a Category 5 hurricane has the highest. This scale only ranks wind speed, but lower category storms can inflict greater damage than higher category storms depending on where they strike, the amount of storm surge, other weather they interact with and how slow they move.

Table 14-1. Extent Scale for Hurricanes¹

| CATEGORY | MAXIMUM SUSTAINED WIND SPEED (Mph) | MINIMUM SURFACE PRESSURE (Millibars) | STORM SURGE (Feet) |
|----------|------------------------------------|--------------------------------------|--------------------|
| 1 | 74-95 | Greater than 980 | 3-5 |
| 2 | 96-110 | 979-965 | 6-8 |
| 3 | 111-130 | 964-945 | 9-12 |
| 4 | 131-155 | 944-920 | 13-18 |
| 5 | 155+ | Less than 920 | 19+ |

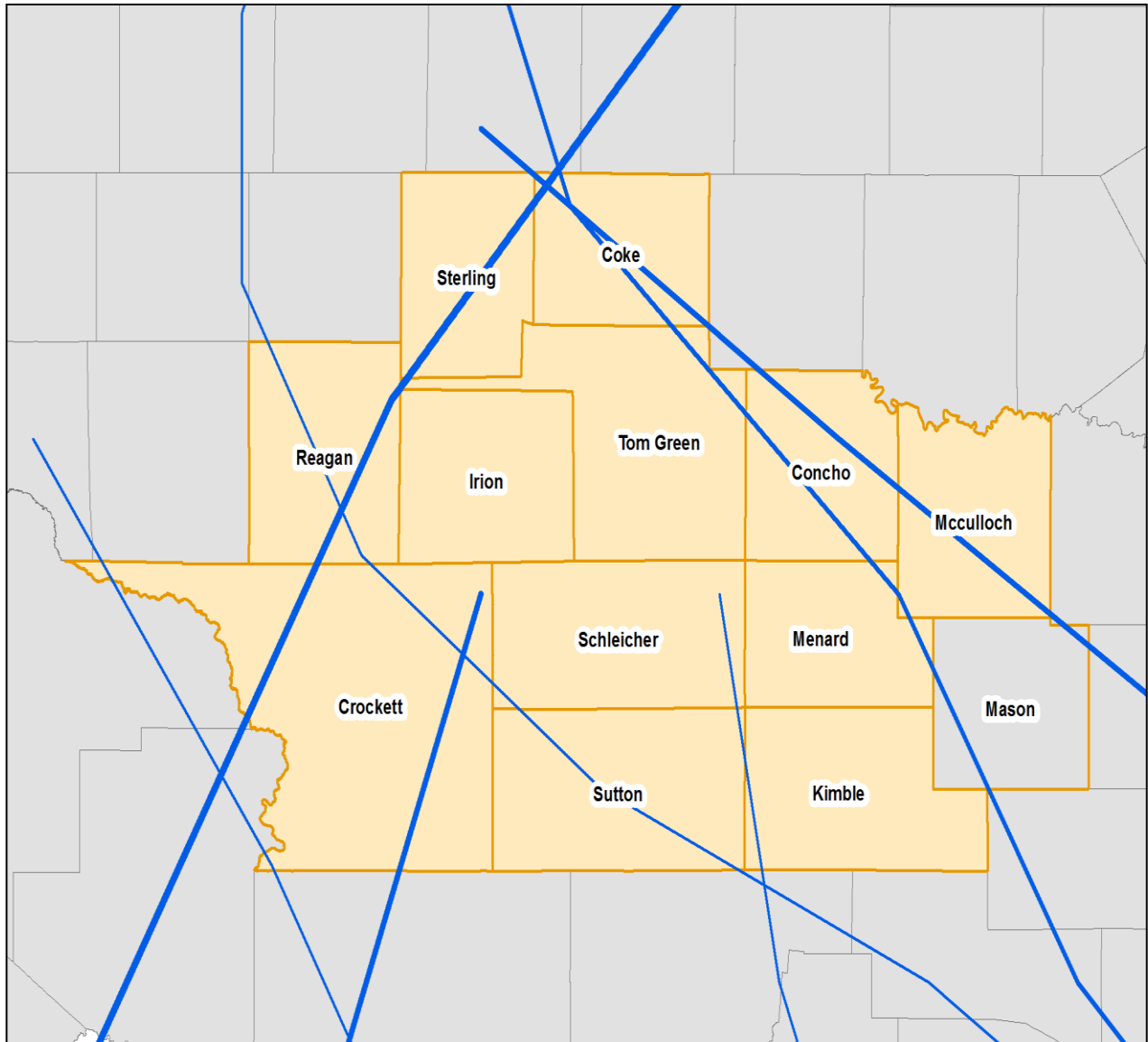
Based on the historical storm tracks for hurricanes and the location of the CVCOG Region outside of the hurricane wind hazard area, the average extent to be mitigated for is a Category 1 storm for the communities in the planning area.

Historical Occurrences

Although hurricanes and tropical storms have made landfall at various magnitudes (categories) in the Concho Valley area, the storms have usually weakened to tropical storms or depressions by that time, being near the end of their life cycle. With the storms having reduced winds, extreme rainfall is the hazard of concern. In Figure 14-1 below, hurricane track widths are reflective of their strength at their strongest magnitude at any location. Table 14-2 lists the storms shown to have a track through the planning area in Figure 14-1.

¹ Source: National Hurricane Center

Figure 14-1. Location of Historic Storm Tracks²



² Source: NOAA/National Hurricane Center

Table 14-2. Historic Storms

| YEAR | STORM NAME | CATEGORY |
|------|------------|----------------|
| 1851 | Not Named | Tropical Storm |
| 1880 | Not Named | Category 4 |
| 1893 | Not Named | Category 2 |
| 1942 | Not Named | Category 3 |
| 1958 | Alma | Tropical Storm |
| 1988 | Gilbert | Category 5 |
| 2007 | Erin | Tropical Storm |

Significant Past Event

16 August 2007

This event affected 10 of the 12 counties in the planning region. The remnants of Tropical Depression Erin slowly moved through the Concho Valley Region, dropping around three to seven inches of rain across a large portion of the area. Over nine inches of rain fell near the rural areas of southeastern Crockett County. Wind gusts up to 42 knots (48 mph) and a minimum seal-level pressure of 1007 mb were reported at Junction. Flash flooding closed many roads and caused one fatality. River and creek flooding damaged hundreds of homes.

Probability of Future Events

Based on historical occurrences and the infrequency of significant hurricane wind events, the probability of future events is unlikely, with an event no more frequent than every 10 years.

Vulnerability and Impact

Hurricane-force winds can cause major damage to large areas; hence all existing buildings, facilities and populations are equally exposed and vulnerable to this hazard and could potentially be impacted. Warning time for hurricanes has lengthened due to modern and early warning technology. Hurricane-force winds can easily destroy poorly constructed buildings and mobile homes, as well as debris such as signs, roofing materials, and small items left outside become extremely hazardous in hurricanes and tropical storms. Extensive damage to trees, towers, and underground utility lines (from uprooted trees) and fallen poles cause considerable civic disruption.

Storm track data was available for the past 150 years; however, property and crop loss data is only available from 1950 to the present. Annual loss estimates were based on the 60 year reporting period for such damages. The average annual loss estimate for counties in the planning region is approximately \$278,000.

Table 14-3. Historic Loss Estimates

| COUNTY | NUMBER OF EVENTS | PROPERTY DAMAGE (2009 \$\$) | CROP DAMAGE (2009 \$\$) |
|------------------------------|-------------------|-----------------------------|-------------------------|
| Coke | 0 | - | - |
| Concho | 0 | - | - |
| Crockett | 4 | \$25,825,193 | \$5,968,759 |
| Irion | 1 | \$3,601,153 | \$369,848 |
| Kimble | 3 | \$22,224,040 | \$5,598,911 |
| McCulloch | 0 | - | - |
| Menard | 3 | \$22,224,040 | \$5,598,911 |
| Reagan | 1 | \$3,601,153 | \$369,848 |
| Schleicher | 4 | \$25,825,193 | \$5,968,759 |
| Sterling | 1 | \$3,601,153 | \$369,848 |
| Sutton | 4 | \$25,825,193 | \$5,968,759 |
| Tom Green | 1 | \$3,601,153 | \$369,848 |
| TOTALS FOR STUDY AREA | (4 unique) | \$166,911,762 | |

The potential severity of impact from a hurricane for the CVCOG Region is classified as limited; injuries would be treatable with first aid, critical facilities would not be shut down for more than 24 hours, and less than 10 percent of property would be destroyed.

MITIGATION STRATEGY

| | |
|----------------------------|---|
| MITIGATION GOALS | 1 |
| GOAL 1 | 2 |
| <i>Objective 1.1</i> | 2 |
| <i>Objective 1.2</i> | 2 |
| <i>Objective 1.3</i> | 2 |
| <i>Objective 1.4</i> | 2 |
| GOAL 2 | 2 |
| <i>Objective 2.1</i> | 2 |
| <i>Objective 2.2</i> | 2 |
| <i>Objective 2.3</i> | 2 |
| GOAL 3 | 2 |
| <i>Objective 3.1</i> | 2 |
| <i>Objective 3.2</i> | 3 |
| <i>Objective 3.3</i> | 3 |
| GOAL 4 | 3 |
| <i>Objective 4.1</i> | 3 |
| <i>Objective 4.2</i> | 3 |
| <i>Objective 4.3</i> | 3 |
| <i>Objective 4.4</i> | 3 |
| GOAL 5 | 3 |
| <i>Objective 5.1</i> | 3 |
| <i>Objective 5.2</i> | 3 |
| <i>Objective 5.3</i> | 3 |

Mitigation Goals

Based on the results of the risk and capability assessments, the Planning Team was able to develop and prioritize the mitigation strategy. At the Mitigation Workshops held July 27-28, 2011, Planning Team members refined the mitigation strategy for the Plan Update, choosing to maintain the overall goal of reducing and eliminating the long-term risk of loss of life and property damage from the full range of disasters.

Goal 1

Protect public health and safety in the region.



Objective 1.1

Maintain critical facilities.

Objective 1.2

Maximize the utilization of the latest technology to provide adequate warning, communication, and mitigation of hazard events.

Objective 1.3

Reduce the danger to, and enhance protection of, high risk areas during hazard events.

Objective 1.4

Protect critical facilities and services.

Goal 2

Protect new and existing properties.

Objective 2.1

Reduce repetitive losses to the National Flood Insurance Program (NFIP).

Objective 2.2

Use the most cost-effective approach to protect existing buildings and public infrastructure from hazards.

Objective 2.3

Enact and enforce regulatory measures to ensure that development will not put people in harm's way or increase threats to existing properties.

Goal 3

Build and support partnerships to enhance mitigation to continuously become less vulnerable to hazards.

Objective 3.1

Build and support local partnerships to continuously become less vulnerable to hazards.

Objective 3.2

Build a cadre of committed volunteers to safeguard the community before, during and after a disaster.

Objective 3.3

Build hazard mitigation concerns into City planning and budgeting processes.

Goal 4

Leverage outside funds for investment in hazard mitigation.

Objective 4.1

Maximize the use of outside sources of funding.

Objective 4.2

Maximize participation of property owners in protecting their properties.

Objective 4.3

Maximize insurance coverage to provide financial protection against hazard event.

Objective 4.4

Prioritize mitigation projects based on cost-effectiveness, and starting with those sites facing the greatest threat to life, health and property.

Goal 5

Increase the understanding of residents for the need for mitigation, and steps they can take to protect people and properties.

Objective 5.1

Heighten public awareness of the full range of natural and man-made hazards they face.

Objective 5.2

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

Objective 5.3

Publicize and encourage the adoption of appropriate hazard mitigation measures.

PREVIOUS ACTIONS

CVCOG REGION 2

COKE COUNTY..... 5

 TOWN OF BRONTE 14

 CITY OF ROBERT LEE 25

CONCHO COUNTY 41

 CITY OF EDEN 48

 TOWN OF PAINT ROCK..... 52

CROCKETT COUNTY..... 61

IRION COUNTY 71

 CITY OF MERTZON..... 81

KIMBLE COUNTY 87

 CITY OF JUNCTION 92

MCCULLOCH COUNTY 101

 TOWN OF MELVIN 107

MENARD COUNTY 110

 CITY OF MENARD 132

REAGAN COUNTY..... 157

 CITY OF BIG LAKE 164

SCHLEICHER COUNTY 169

 CITY OF ELDORADO 172

STERLING COUNTY 176

 CITY OF STERLING CITY 182

SUTTON COUNTY..... 197

 CITY OF SONORA 203

TOM GREEN COUNTY..... 209

 CITY OF SAN ANGELO..... 212

Previous Actions

Planning team members were given copies of the mitigation actions submitted in the 2005 Plan at the mitigation workshops during the planning process. Each jurisdiction reviewed the previous action and provided an analysis as to whether the action had been completed, should be deferred as an ongoing activity, or should be deleted from the plan. The actions from the 2005 Plan are included in this section as they were written in 2005, with the exception of the “2011 Analysis” section. Sometimes hazards addressed are listed as “multiple hazards” or “all hazards” as this was allowed per the state and FEMA regulations at the time the actions were developed.

CVCOG Region

| Concho Valley Council of Governments (Past Action) – 1 | |
|---|--|
| Proposed Action: | Mobile Command Center. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG |
| History of Damages: | The Concho Valley Region is susceptible to a wide variety of natural hazards. Many of these natural disasters are beyond any control, the best option is to try and mitigate the loss of property and life. A good way of doing this is through responding quickly and efficiently with an adequate amount of communication equipment. |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Primary Hazard Addressed: | All Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$150,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | CVCOG |
| Target Completion Date: | 2010 |

| 2011 Analysis: |
|---|
| Completed – San Angelo has the Mobile Command Center. |

| Concho Valley Council of Governments (Past Action) – 2 | |
|---|---|
| Proposed Action: | Automated notification technology (Reverse 911). |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG |
| History of Damages: | The Concho Valley Region is susceptible to a wide variety of natural hazards. Many of these natural disasters are beyond any control, the best option is to try and mitigate the loss of property and life. The best way to accomplish this is an early warning system. |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Primary Hazard Addressed: | All Hazards |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$250,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | CVCOG |
| Target Completion Date: | 2010 |

| 2011 Analysis: |
|-----------------------|
| Completed in 2007. |

| Concho Valley Council of Governments (Past Action) – 3 | |
|---|--|
| Proposed Action: | Educate the public about pipelines: safety risks, detecting an accident, responding to accidents (Smalley Foundation training). |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG |
| History of Damages: | The Concho Valley Region is crisscrossed with pipelines. Many of the elected officials and most of the general population are not aware of this and the potential hazards that accompany such a pipeline system. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Primary Hazard Addressed: | Hazardous Material Incident, Fuel Pipeline Failure |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | CVCOG |
| Target Completion Date: | 2006 |

| 2011 Analysis: |
|-----------------------------------|
| Keep as proposed action for 2014. |

Coke County

| Coke County (Past Action) – 1 | |
|--------------------------------------|--|
| Proposed Action: | Charge a premium price for excavator usage. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| History of Damages: | Drought conditions last for years at a time. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Primary Hazard Addressed: | Drought |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | N/A |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | City of Robert Lee, Town of Bronte, Coke County |
| Target Completion Date: | 4 months |

| 2011 Analysis: |
|--|
| "Excavator" should be "equipment" An update is necessary, and this is a continued process, defer. |

Coke County (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Implement a tree trimming project that routinely clears tree timber hanging in right-of-way. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| History of Damages: | There is a history of occasional tornado/wind storms. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Robert Lee, Town of Bronte, Coke County |
| Target Completion Date: | 1 year |

| |
|--|
| 2011 Analysis: |
| This is an annual project and needs to rollover into the new plan. |

Coke County (Past Action) – 3

| | |
|-------------------------------|---|
| Proposed Action: | Cut fire breaks along county roads and county property. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| History of Damages: | There is a history of occasional fire hazards. |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Coke County |
| Target Completion Date: | 1 year |

| 2011 Analysis: |
|---|
| <p>This is an ongoing project yearly, and because of the fire, the County has spent over \$100,000 for just one fire that occurred. Rollover into new plan.</p> |

Coke County (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Advertise and promote the availability of crop insurance. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| History of Damages: | There is a history of occasional severe storms. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$200 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Coke County |
| Target Completion Date: | 1 month |

| |
|---|
| 2011 Analysis: |
| Advertising annually with the extension service. This is important to the County and they would like to roll it over into the new plan. |

Previous Actions

Coke County (Past Action) – 5

| | |
|-------------------------------|--|
| Proposed Action: | Develop burn restrictions. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| History of Damages: | There is a history of occasional fire hazards. |

| | |
|--|-------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | N/A |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Coke County |
| Target Completion Date: | 1 year |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Coke County (Past Action) – 6

| | |
|-------------------------------|--|
| Proposed Action: | Coordinate wildfire hazard plan with other agencies. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| History of Damages: | There is a history of occasional wildfire hazards. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | N/A |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | City of Robert Lee, Town of Bronte, Coke County |
| Target Completion Date: | To be determined |

| |
|-----------------------------------|
| 2011 Analysis: |
| Completed and currently in place. |

Coke County (Past Action) – 7

| | |
|-------------------------------|---|
| Proposed Action: | Expand rainfall observer program, utilize volunteers. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| History of Damages: | There is a history of occasional flooding. |

| | |
|--|----------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | N/A |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Weather Bureau |
| Target Completion Date: | 1 year |

| |
|---|
| 2011 Analysis: |
| Have a volunteer fire department, but would like to rollover this action because it is done annually. |

Coke County (Past Action) – 8

| | |
|-------------------------------|---|
| Proposed Action: | Provide safety procedures to builders for building and operating near hazard pipelines. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| History of Damages: | There is a history of occasional hazmat/pipeline hazards. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident, Fuel Pipeline Failure |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | N/A |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Hazmat operator |
| Target Completion Date: | 1 year |

| |
|---|
| 2011 Analysis: |
| The emergency management currently in place is already covering this. This action is currently in place, completed. |

Coke County (Past Action) – 9

| | |
|-------------------------------|---|
| Proposed Action: | Develop Mutual Aid Agreements with neighboring communities. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| History of Damages: | N/A |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Terrorism |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Robert Lee, Town of Bronte, Coke County |
| Target Completion Date: | 1 year |

| |
|---|
| 2011 Analysis: |
| This action is currently in place, completed. |

Town of Bronte

| Town of Bronte (Past Action) – 1 | |
|---|---|
| Proposed Action: | Develop a soil conservation plan for wind and water erosion of soil, especially near city streams, rivers and lakes. Spray or control salt cedar. Provide incentives for farms and ranch diversifications strategies. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | The Town of Bronte has had several droughts in recent history and a heat wave in 1994. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------|
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$3.5 million |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | 5 years |

| 2011 Analysis: |
|-------------------------|
| Rollover into new plan. |

Town of Bronte (Past Action) – 2

| | |
|-------------------------------|---|
| Proposed Action: | Develop a soil conservation plan for wind and water erosion of soil, especially near city streams, rivers and lakes. Spray or control salt cedar. Provide incentives for farms and ranch diversifications strategies. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | The Town of Bronte has had several droughts in recent history and a heat wave in 1994. |

| | |
|--|-------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1.6 million |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | 5 years |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing action. |

Previous Actions

Town of Bronte (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Build water reservoirs or wells for use in times of water outage and/or drought. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | The Town of Bronte has had several droughts in recent history and a heat wave in 1994. |

| | |
|--|-------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2 million |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | 5 years |

| |
|---|
| 2011 Analysis: |
| Ongoing action, rollover into new plan. |

Previous Actions

Town of Bronte (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Maintain sewer manholes with watertight covers and inflow guards. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | The Town of Bronte experienced a major flash flood in 1998. |

| | |
|--|----------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$500,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | 5 years |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing project. |

Town of Bronte (Past Action) – 5

| | |
|-------------------------------|--|
| Proposed Action: | Flood-proof sewage treatment plants in flood hazard/low-lying areas. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | The Town of Bronte experienced a major flood in 1998. |

| | |
|--|----------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | 5 years |

| |
|---|
| 2011 Analysis: |
| Currently working on a sewer plant now, ongoing action. |

Town of Bronte (Past Action) – 6

| | |
|-------------------------------|---|
| Proposed Action: | Obtain emergency generator for water treatment plant. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | Power outages ranging from 1 to 6 hours due to downed power lines from thunderstorms and wind storms. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm, Tornado |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$75,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | 5 years |

| |
|-------------------------|
| 2011 Analysis: |
| Rollover into new plan. |

Previous Actions

| Town of Bronte (Past Action) – 7 | |
|---|---|
| Proposed Action: | Prepare brochure for residents explaining warning signals for severe weather and wildfires. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | The Town of Bronte has a history of severe weather and winter storms. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------|
| Primary Hazard Addressed: | Thunderstorm, Tornado |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$200 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | December 31, 2004 |

| 2011 Analysis: |
|-----------------------|
| Rollover action. |

Town of Bronte (Past Action) – 8

| | |
|-------------------------------|--|
| Proposed Action: | Distribute brochures regarding water conservation. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | The Town of Bronte has had several droughts in recent history and a heat wave in 1994. |

| | |
|--|-------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | December 31, 2004 |

| |
|---------------------------------|
| 2011 Analysis: |
| This action has been completed. |

Town of Bronte (Past Action) – 9

| | |
|-------------------------------|---|
| Proposed Action: | Purchase NOAA (all weather) radio. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | The Town of Bronte has a history of severe weather and winter storms. |

| | |
|--|----------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm, Winter Storm, Hail |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | 5 years |

| |
|---------------------------------|
| 2011 Analysis: |
| This action has been completed. |

Previous Actions

| Town of Bronte (Past Action) – 10 | |
|--|---|
| Proposed Action: | Clean out creeks and erosion control. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | The Town of Bronte experienced a major flood in 1998. |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$150,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | 5 years |

| 2011 Analysis: |
|-----------------------|
| Ongoing activity. |

Previous Actions

Town of Bronte (Past Action) – 11

| | |
|-------------------------------|--|
| Proposed Action: | Distribute to citizens information regarding flood insurance program. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| History of Damages: | Flooding as a result of heavy rains northwest of the Town of Bronte. Water trying to get to the Kickapoo Creeks, floods several locations. |

| | |
|--|-------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Less than \$50 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Town of Bronte |
| Target Completion Date: | December 31, 2004 |

| |
|---------------------------------|
| 2011 Analysis: |
| This action has been completed. |

City of Robert Lee

| City of Robert Lee (Past Action) – 1 | |
|---|---|
| Proposed Action: | Undertake remediation of Mountain Creek Dam and/or spillway. Upgrade spillway structure capability to discharge 100% of the probable maximum flood based on the presence of residences and the city’s water treatment plant, located downstream of the dam, which would be adversely affected in the event of a break of the dam. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | Mountain Creek Dam is classified by the Texas Commission on Environmental Quality (TCEQ) as a high hazard structure. Owner is the Upper Colorado River and the operator is the City of Robert Lee. Mountain Creek is a drinking water source for the City of Robert Lee. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$750,000 or greater |
| Potential Funding Sources: | Assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee, Upper Colorado River Authority |
| Target Completion Date: | 6-12 months |

| 2011 Analysis: |
|---|
| A preventive maintenance/remediation plan is in effect and includes annual maintenance of dam and spillway. Sections of the spillway will be removed or repaired each year. Target completion of spillway is 3 years. |

City of Robert Lee (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Undertake remediation of Mountain Creek Dam and/or spillway. Initiate a hydrologic and hydraulic study, if not already prepared, for the study of the area in preparation of taking necessary corrective action measures for Mountain Creek Dam. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | Mountain Creek Dam is classified by the TCEQ as a high hazard structure. Owner is the Upper Colorado River and the operator is the City of Robert Lee. Mountain Creek is a drinking water source for the City of Robert Lee. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$15,000 |
| Potential Funding Sources: | Assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee, Upper Colorado River Authority |
| Target Completion Date: | 6-12 months |

| |
|-----------------------------------|
| 2011 Analysis: |
| Study has been completed by UCRA. |

City of Robert Lee (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Undertake remediation of Mountain Creek Dam and/or spillway. Initiate a preliminary engineering study concerning the watershed for Mountain Creek Reservoir to determine if a hydrologic and hydraulic study is warranted. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | Mountain Creek Dam is classified by the TCEQ as a high hazard structure. Owner is the Upper Colorado River and the operator is the City of Robert Lee. Mountain Creek is a drinking water source for the City of Robert Lee. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee, Upper Colorado River Authority |
| Target Completion Date: | 6-12 months |

| |
|--|
| 2011 Analysis: |
| Annual inspections are performed by SKG Engineering. |

Previous Actions

City of Robert Lee (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Replace inadequate drainage structure on Austin Street between 15th Street between Childress and 12th Streets. Replace 18-inch corrugated metal pipe by a 4' x 3' multiple box culvert with four spans. This will involve removing and replacing metal pipe and pavement in the area adjacent to the culvert locations. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | Inadequate drainage structure on 15th Street between Childress and 12th Streets. The existing 18-inch corrugated metal pipe should be replaced. This problem directly affects adjacent homes. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$35,000 |
| Potential Funding Sources: | Assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 6 months |

| |
|--|
| 2011 Analysis: |
| Defer 24 months due to drought/lack of rain. |

Previous Actions

City of Robert Lee (Past Action) – 5

| | |
|-------------------------------|---|
| Proposed Action: | Install lift station and force main at water treatment plant to lift from the city’s existing collection system on Austin Street to route water from the treatment holding ponds to the wastewater plant as needed. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | The holding ponds at the water treatment plant holding backwash water periodically floods with significant rainfall and discharge into the Colorado River. This is a potential violation of the TCEQ. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 3 months |

| |
|-----------------------|
| 2011 Analysis: |
| Project completed. |

City of Robert Lee (Past Action) – 6

| | |
|-------------------------------|--|
| Proposed Action: | Purchase a backup generator to restore power to pump stations at the water and wastewater treatment plants during power outages. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | Severe storms periodically cause power outages putting the water and wastewater treatment systems at risk. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado, Thunderstorm |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$15,000 |
| Potential Funding Sources: | Assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 3 months |

| |
|-------------------------|
| 2011 Analysis: |
| Defer/Target 36 months. |

Previous Actions

City of Robert Lee (Past Action) – 7

| | |
|-------------------------------|---|
| Proposed Action: | Adopt routine fire hydrant maintenance. Each valve should be periodically operated and maintained in proper working condition, in conjunction with line flushing. Any inoperative unit shall be replaced at first opportunity. Fire hydrants should be located within 500’ of every building. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | There appears to be areas where fire hydrants are not located within 500’ of all structures and improvements. Fire hydrants are not flushed and checked on a routine basis and should be. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$12,000 |
| Potential Funding Sources: | General revenues, assistance would be required in the form of low interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee, VFD |
| Target Completion Date: | 6-12 months |

| |
|-----------------------|
| 2011 Analysis: |
| Defer 36 months. |

City of Robert Lee (Past Action) – 8

| | |
|-------------------------------|--|
| Proposed Action: | Purchase additional early warning systems for hazard events. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | The city currently has two locations where warning sirens are installed. However, at times these do not adequately cover the response area needed. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | All Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 3 months |

| |
|-----------------------|
| 2011 Analysis: |
| Remove. |

Previous Actions

City of Robert Lee (Past Action) – 9

| | |
|-------------------------------|---|
| Proposed Action: | Replace inadequate drainage structure on Austin Street between 15th and 12th Streets. Replace existing 18-inch corrugated metal pipe with two 36-inch corrugated metal pipes. This will involve removing and replacing metal pipe and pavement along Austin Street. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | The existing 18-inch corrugated metal pipe does not have the required capacity to carry the 5-year design flow and will become inundated and cause unacceptable headwater elevations. This problem will directly affect adjacent homes. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$7,000 |
| Potential Funding Sources: | Assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 6 months |

| |
|--|
| 2011 Analysis: |
| Defer 24 months due to drought/lack of rain. |

Previous Actions

City of Robert Lee (Past Action) – 10

| | |
|-------------------------------|--|
| Proposed Action: | Add/increase dimensions of drainage culverts in troublesome areas of the City. This may involve removing and replacing pavement in the area adjacent to the culvert locations. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | Add new drainage system to address flooding of adjacent homes on Washington and Hamilton Streets between 10th and 15th Streets. This problem directly affects adjacent homes. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$7,000 |
| Potential Funding Sources: | Assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 6 months |

| |
|--|
| 2011 Analysis: |
| Defer 24 months. Project low priority due to drought/lack of rain. |

Previous Actions

| City of Robert Lee (Past Action) – 11 | |
|--|--|
| Proposed Action: | Provide water conservation education, and promote water and energy conservation on the local government level. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | The City has watering restriction and drought contingency plans in place. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Primary Hazard Addressed: | Drought |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000 |
| Potential Funding Sources: | General revenues, assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | Year round, focusing on summer months |

| 2011 Analysis: |
|---|
| Critical water supply. High outdoor restrictions in place. Investigating alternate water supply/ground water. |

Previous Actions

| City of Robert Lee (Past Action) – 12 | |
|--|--|
| Proposed Action: | Prepare a brochure detailing warning signals and meaning for wildfire or severe weather conditions. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | City Hall has two sirens located around the City that are used to signal residents for fire response and/or severe weather conditions. |

| MITIGATION ACTION DETAILS | |
|--|--------------------|
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$200 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 3-6 months |

| 2011 Analysis: |
|-----------------------|
| Completed. |

Previous Actions

City of Robert Lee (Past Action) – 13

| | |
|-------------------------------|---|
| Proposed Action: | Purchase a NOAA “All Hazards” radio for City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | City Hall has no radio communication to alert for potential weather conditions. |

| | |
|--|--------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 3-6 months |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Previous Actions

| City of Robert Lee (Past Action) – 14 | |
|--|--|
| Proposed Action: | Evaluate water quantity and quality from new sources. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | The City is always looking for alternate water sources that may be available for improved water quality and improved drinking standards; also alternate water source in the event of severe drought. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Primary Hazard Addressed: | Drought |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Unknown |
| Potential Funding Sources: | General revenues, assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 6-12 months |

| 2011 Analysis: |
|--|
| A comprehensive engineer study performed on the availability of alternate water sources that cost \$6,000. Presently drilling & testing underground well fields for potential alternate water sources. Cost still unknown. |

Previous Actions

City of Robert Lee (Past Action) – 15

| | |
|-------------------------------|---|
| Proposed Action: | Clear an overgrown waterway. Clear and straighten the channel to the tributary of the Colorado River which runs through the western part of the City. Remove excess debris and growth within waterways. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | Channel improvements to the tributary of the Colorado River which runs through the western part of the City to promote better drainage characteristics and minimize backwater conditions caused by excess debris and growth within the waterways. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$14,000 |
| Potential Funding Sources: | Assistance would be required in the form of low-interest, long-term loans or grants. Texas Community Development Block Grants, Texas Capital Fund, Rural Development, bonds or other avenues would be considered. |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 6-12 months |

| |
|---|
| 2011 Analysis: |
| Remove; very low hazard due to drought. |

City of Robert Lee (Past Action) – 16

| | |
|-------------------------------|---|
| Proposed Action: | Join the National Flood Insurance Program. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| History of Damages: | The City has not joined the National Flood Insurance Program. |

| | |
|--|--------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Very little |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Target Completion Date: | 6 months |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Concho County

| Concho County (Past Action) – 1 | |
|--|---|
| Proposed Action: | Implement and enhance an area-wide telephone emergency notification system (Reverse 911). |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County |
| History of Damages: | Need for better communications is always there. |

| MITIGATION ACTION DETAILS | |
|--|----------------------|
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$250,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Commissioner’s Court |
| Target Completion Date: | 5 years |

| 2011 Analysis: |
|-----------------------|
| Completed. |

Concho County (Past Action) – 2

| | |
|-------------------------------|---|
| Proposed Action: | Develop emergency response plans for farms: stockpile pumps, pipes, water filters and other equipment; establish water hauling for livestock and drinking water for people; establish hay hot line emergency shipments. |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County |
| History of Damages: | Concho County has a history of dry weather. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Local fire departments, Concho County Commissioners |
| Target Completion Date: | 2 years |

| |
|---|
| 2011 Analysis: |
| Ongoing, it hasn't been fully completed. Rollover into new plan, estimated completion 2014. |

Concho County (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Develop a soil conservation plan for wind and water erosions of soils, reduced soil quality. |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County |
| History of Damages: | Concho County has a history of bad droughts and heat. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Local Soil and Water Conservation Board |
| Target Completion Date: | 3 years |

| |
|--|
| 2011 Analysis: |
| Ongoing, estimated completion in 2014. |

| Concho County (Past Action) – 4 | |
|--|--|
| Proposed Action: | Install fire danger rating/burn ban signs. |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County |
| History of Damages: | Wildfire danger is always present. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Local fire departments, Concho county Commissioners |
| Target Completion Date: | 5 years |

| 2011 Analysis: |
|-----------------------|
| Completed. |

Concho County (Past Action) – 5

| | |
|-------------------------------|---|
| Proposed Action: | Prepare and advertise the local emergency evacuation plan, such as escape routes. |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County |
| History of Damages: | The area is susceptible to storm-related winds. |

| | |
|--|-----------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado, Thunderstorm, Hail |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Country Extension Service |
| Target Completion Date: | 1 year |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Previous Actions

| Concho County (Past Action) – 6 | |
|--|--|
| Proposed Action: | Advertise and promote the availability of crop insurance. |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County |
| History of Damages: | Agriculture based community – hail will damage entire year’s production in just a few minutes. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------|
| Primary Hazard Addressed: | Thunderstorm, Hail |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Concho County Commissioners |
| Target Completion Date: | 1 year |

| 2011 Analysis: |
|-----------------------|
| Completed. |

Previous Actions

Concho County (Past Action) – 7

| | |
|-------------------------------|--|
| Proposed Action: | Educate the public on extreme heat/drought safety and health issues. |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County |
| History of Damages: | This is West Texas and we expect droughts and heat. |

| | |
|--|---------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$250 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Concho County Extension Service |
| Target Completion Date: | 3 months |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

City of Eden

| City of Eden (Past Action) – 1 | |
|---------------------------------------|--|
| Proposed Action: | Improve Emergency Management radio coverage and reception. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eden |
| History of Damages: | The City of Eden is susceptible to many hazards. |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$25,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City Council |
| Target Completion Date: | 2007 |

| 2011 Analysis: |
|-----------------------|
| Completed. |

| City of Eden (Past Action) – 2 | |
|---------------------------------------|---|
| Proposed Action: | Build water wells for use in times of water outage/drought. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eden |
| History of Damages: | The City of Eden depends only on well water. Radiation has affected some wells and the City of Eden could be in danger of water outage. |

| MITIGATION ACTION DETAILS | |
|--|--------------|
| Primary Hazard Addressed: | Drought |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City Council |
| Target Completion Date: | 2007 |

| 2011 Analysis: |
|---------------------------------|
| Not completed, ongoing project. |

| City of Eden (Past Action) – 3 | |
|---------------------------------------|--|
| Proposed Action: | Provide proper design criteria for tornado/storm safe rooms. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eden |
| History of Damages: | Frequency of tornadoes and dangerous high winds in the City of Eden. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------|
| Primary Hazard Addressed: | Tornado, Thunderstorm |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$2,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City Council |
| Target Completion Date: | 2007 |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

| City of Eden (Past Action) – 4 | |
|---------------------------------------|---|
| Proposed Action: | Educate residents about xeriscaping. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eden |
| History of Damages: | The City of Eden has been in a lengthy drought for years. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------|
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$200 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City Council |
| Target Completion Date: | 2007 |

| 2011 Analysis: |
|-----------------------|
| Completed. |

Town of Paint Rock

| Town of Paint Rock (Past Action) – 1 | |
|---|--|
| Proposed Action: | Implement and enhance an area-wide telephone emergency notification system (Reverse 911). |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| History of Damages: | Due to the different hazards (hail, wind, tornado, and wildfires) that have affected the Town of Paint Rock. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$250,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Paint Rock, Commissioner’s Court |
| Target Completion Date: | June 2009 |

| 2011 Analysis: |
|-----------------------|
| Completed. |

Previous Actions

Town of Paint Rock (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Install fire danger ratings/burn ban signs. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| History of Damages: | The Town of Paint Rock has had numerous fires within the town. |

| | |
|--|------------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Paint Rock, Forest Service |
| Target Completion Date: | To be determined |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Previous Actions

Town of Paint Rock (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Purchase NOAA “All Hazards” radios for emergency warning and post-event information and place in schools, businesses, and critical facilities. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| History of Damages: | Severe storms and hail have caused damage in the Town of Paint Rock. |

| | |
|--|----------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm, Hail |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City Council, School Board |
| Target Completion Date: | June 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Town of Paint Rock (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Develop water/power supplies crisis response plan. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| History of Damages: | The Town of Paint Rock has a history of heat/drought. |

| | |
|--|-------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | Grants, donations |
| Lead Agency/Department Responsible: | Town of Paint Rock |
| Target Completion Date: | June 2007 |

| |
|---|
| 2011 Analysis: |
| Estimated completion date 2014, rollover. |

Town of Paint Rock (Past Action) – 5

| | |
|-------------------------------|---|
| Proposed Action: | Develop emergency response plans for farms: stockpile pumps, water filters and other equipment; establish water hauling programs for livestock; establish hay hot line emergency shipments. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| History of Damages: | Concho County/ Town of Paint Rock have a history of heat and drought. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | Grants, donations |
| Lead Agency/Department Responsible: | Volunteer fire department, Concho County Commissioners |
| Target Completion Date: | June 2007 |

| |
|--|
| 2011 Analysis: |
| Estimated completion date is 2014, rollover. |

Previous Actions

Town of Paint Rock (Past Action) – 6

| | |
|-------------------------------|--|
| Proposed Action: | Evaluate water quality and quantity from new sources. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| History of Damages: | The Town of Paint Rock has a history of heat and droughts. |

| | |
|--|--------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 per incident |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Town of Paint Rock, TCEQ |
| Target Completion Date: | June 2006 |

| |
|-----------------------|
| 2011 Analysis: |
| Rollover. |

Previous Actions

Town of Paint Rock (Past Action) – 7

| | |
|-------------------------------|--|
| Proposed Action: | Survey and remove hazardous trees from drainage systems. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| History of Damages: | The Town of Paint Rock has a history of both tornadoes and high winds. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado, Thunderstorm |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City Council |
| Target Completion Date: | June 2007 |

| |
|-----------------------|
| 2011 Analysis: |
| Rollover. |

Town of Paint Rock (Past Action) – 8

| | |
|-------------------------------|--|
| Proposed Action: | Prepare and advertise the local evacuation plans, such as escape routes in coordination with the Department of Transportation. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| History of Damages: | The Town of Paint Rock has a history of high winds and tornadoes. |

| | |
|--|--------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado, Thunderstorm |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | City Council |
| Target Completion Date: | June 2007 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Town of Paint Rock (Past Action) – 9

| | |
|-------------------------------|---|
| Proposed Action: | Provide the public with water conservation education and incentives for low-flowing plumbing and toilets, efficient washers, and rain harvesting. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| History of Damages: | The Town of Paint Rock has had times when water was limited. |

| | |
|--|--------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Paint Rock, TCEQ |
| Target Completion Date: | June 2006 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Crockett County

| Crockett County (Past Action) – 1 | |
|--|---|
| Proposed Action: | Post warning signs during season. Coordinate with emergency responders and surrounding jurisdictions. Make the public aware during high risk situations. Maintain adequate firefighting equipment and training. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| History of Damages: | Due to frequent droughts, wildfires are a constant danger to life and property. Oil and gas wells and facilities pose a high risk of explosion and extreme heat damage. Lightning strikes and man-made actions are the usual cause for wildfires. |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Crockett County |
| Target Completion Date: | 2006 |

| 2011 Analysis: |
|--|
| This action has been completed. Posted burn ban signs in the County. |

Crockett County (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Educate and inform producers about disaster loan programs available through various government and private sources. Educate public about xeriscaping. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| History of Damages: | Between 1994 and 2003, periods of low rainfall resulted in losses in hunting, livestock production, and revenue. Residential landscape also suffers stress and some loss. Public parks and landscape also deteriorate. |

| | |
|--|-------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 - \$5,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Crockett County |
| Target Completion Date: | 2006 |

| |
|----------------------------------|
| 2011 Analysis: |
| Ongoing project, yearly project. |

Crockett County (Past Action) – 3

| | |
|-------------------------------|---|
| Proposed Action: | Provide training for emergency responders. Coordinate with state and surrounding jurisdictions. Maintain Emergency Management plan. Provide public education and awareness. Encourage private companies and individuals to comply with required safety regulations. Identify sites. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| History of Damages: | Crockett Country has four large facilities and numerous small installations. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident, Pipeline Failure |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$4,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Crockett County |
| Target Completion Date: | 2006 |

| |
|--|
| 2011 Analysis: |
| Completed action but are ongoing projects, rollover into new plan. |

Crockett County (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Provide training for emergency responders. Coordinate with state and surrounding jurisdictions. Maintain Emergency Management plan. Provide for the public education and awareness; Encourage private companies and individuals to comply with all required safety regulations. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| History of Damages: | There are 6,000 oil and gas wells and several thousand miles of pipelines. Some are high-pressure; some are over 60 years old. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Fuel Pipeline Failure, Hazardous Material Incident |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Crockett County |
| Target Completion Date: | 2006 |

| |
|--|
| 2011 Analysis: |
| Completed but ongoing project, rollover into new plan. |

Crockett County (Past Action) – 5

| | |
|-------------------------------|---|
| Proposed Action: | Provide training for emergency responders. Coordinate with state and surrounding jurisdictions. Maintain Emergency Management plan. Provide public education and awareness. Encourage private companies and individuals to comply with all required safety regulations. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| History of Damages: | Due to presence of oil and gas wells (6,000+), pipelines (several thousand miles) and 55 miles of Interstate Highway 10, there is a constant danger of spills. |

| | |
|--|-----------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Crockett County |
| Target Completion Date: | 2006 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Crockett County (Past Action) – 6

| | |
|-------------------------------|---|
| Proposed Action: | Educate the public about possible dangers. Provide training for emergency responders. Develop and maintain Emergency Management plan. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| History of Damages: | Over 4,400 natural gas wells and 2,100 oil wells are connected to pipelines, tanks and processing facilities. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Fuel Pipeline Failure |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Crockett County |
| Target Completion Date: | 2006 |

| |
|--|
| 2011 Analysis: |
| Completed, placed articles in the newspaper to educate the public. |

Crockett County (Past Action) – 7

| | |
|-------------------------------|--|
| Proposed Action: | Enhance early warning system. Assist water district with rainfall observer. Educate community on dangers of low water crossings. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| History of Damages: | Periodic flash flooding occurs from sudden violent thunderstorms. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Crockett County |
| Target Completion Date: | 2006 |

| |
|--|
| 2011 Analysis: |
| Enhanced new warning system, rollover. |

| Crockett County (Past Action) – 8 | |
|--|--|
| Proposed Action: | Purchase NOAA “All Hazards” radios for critical facilities. Inform public of roof and structure improvements. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| History of Damages: | Occasional losses due to intense thunderstorms. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------|
| Primary Hazard Addressed: | Thunderstorm, Tornado |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Crockett County |
| Target Completion Date: | 2006 |

| 2011 Analysis: |
|-----------------------|
| Rollover action. |

Crockett County (Past Action) – 9

| | |
|-------------------------------|---|
| Proposed Action: | Inform public about early warning and shelter. Maintain warning system. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| History of Damages: | Small tornadoes associated with thunderstorms have occasionally been sighted. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Crockett County |
| Target Completion Date: | 2006 |

| |
|--|
| 2011 Analysis: |
| Warning system has been improved; however, need to develop a program to inform the public about the early warning system and shelters. |

| Crockett County (Past Action) – 10 | |
|---|--|
| Proposed Action: | Provide information through news releases. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| History of Damages: | Increased possibility due to world unrest. |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Primary Hazard Addressed: | Terrorism |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Crockett County |
| Target Completion Date: | 2006 |

| 2011 Analysis: |
|---|
| Completed, post articles in newspapers. |

Irion County

| Irion County (Past Action) – 1 | |
|---------------------------------------|---|
| Proposed Action: | Educate the public on extreme heat/drought safety and health issues. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| History of Damages: | There is a history of droughts/heat waves that were costly and caused significant crop damage. In 2004, Irion County was determined to be eligible for crop and small business loans from the federal government. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------|
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Irion County |
| Target Completion Date: | December 2005 |

| 2011 Analysis: |
|-----------------------|
| Rollover. |

Irion County (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Coordinate wildfire hazard plan with other agencies/jurisdictions; ensure area firefighters are properly trained in wildfire fighting; educate residents of wildfire hazard areas about fire protection necessities; and purchase better firefighting equipment. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| History of Damages: | No major wildfire has occurred, but the long droughts have made conditions prime for a wildfire. |

| | |
|--|--------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | Irion County |
| Target Completion Date: | December 2005 |

| |
|--|
| 2011 Analysis: |
| Ongoing project. Upgrading equipment and improved all trucks with GPS for more accurate reporting. |

Irion County (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Implement a flood early warning system and response plan; prohibit fill in floodplain areas; prohibit granting of variances for development in the SFHA; provide and/or implement model floodplain management information requirement and inspection standards; tie-down of propane tanks; educate public on the dangers of low water crossings. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| History of Damages: | There is a history of floods/flash floods that were costly and caused significant property damage. |

| | |
|--|--------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | Irion County |
| Target Completion Date: | December 2005 |

| |
|--|
| 2011 Analysis: |
| Action has been completed. Use Blackboard System to inform public by calling, texting, and sirens. |

| Irion County (Past Action) – 4 | |
|---------------------------------------|---|
| Proposed Action: | Implement warning plan to notify community. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| History of Damages: | Irion County has a history of hailstorms. |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Primary Hazard Addressed: | Hail |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Irion County |
| Target Completion Date: | December 2005 |

| 2011 Analysis: |
|---|
| Action has been completed, use Blackboard System. |

Irion County (Past Action) – 5

| | |
|-------------------------------|--|
| Proposed Action: | Assess needs for the County’s emergency response services; improve emergency management radio coverage and reception; implement area-wide telephone emergency notification system; install quick-connect emergency generator hook-ups for critical facilities; and establish a debris management plan for post-disaster. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| History of Damages: | Emergency in poor conditions; lack of continued education. |

| | |
|--|--------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | Irion County |
| Target Completion Date: | December 2005 |

| |
|--|
| 2011 Analysis: |
| Completed actions. Purchased generators for community centers and main building that are the shelters during emergencies. All radio equipment is now converted to narrowband. New radio tower. |

Irion County (Past Action) – 6

| | |
|-------------------------------|---|
| Proposed Action: | Implement an early warning system and educate public on hazards. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| History of Damages: | Irion County has a history of severe winter storms, including ice and heavy snow. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Winter Storm |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Irion County |
| Target Completion Date: | December 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Irion County (Past Action) – 7

| | |
|-------------------------------|--|
| Proposed Action: | Advertise and promote the availability of crop damage and low interest government loans; improve warning system. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| History of Damages: | Irion County has a history of severe thunderstorms and high wind. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Irion County |
| Target Completion Date: | December 2005 |

| |
|---|
| 2011 Analysis: |
| Not very agricultural, however may begin, rollover. |

Irion County (Past Action) – 8

| | |
|-------------------------------|--|
| Proposed Action: | Require manufactured housing to be securely anchored; advertise the local emergency evacuation plan. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| History of Damages: | Irion County has a history of tornadoes. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Irion County |
| Target Completion Date: | December 2005 |

| |
|-------------------------|
| 2011 Analysis: |
| Rollover into new plan. |

Irion County (Past Action) – 9

| | |
|-------------------------------|---|
| Proposed Action: | Develop local hazmat team; develop Mutual Aid Agreement between local emergency responders for other jurisdictions; educate the public about hazardous materials traveling through the County; educate the public about hazmat. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| History of Damages: | In 2003, there was a well that had a blowout that caused US Highway 67 to be shut down for 72 hours. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident, Energy Pipeline Failure |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | Irion County |
| Target Completion Date: | December 2005 |

| |
|--|
| 2011 Analysis: |
| They don't have HazMat training, but they joined Tom Green County for mutual aid agreements. |

Previous Actions

Irion County (Past Action) – 10

| | |
|-------------------------------|---|
| Proposed Action: | Make available specialized training for public safety personnel and other local government employees. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| History of Damages: | For public protection in Irion County. |

| | |
|--|--------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Terrorism |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | Irion County |
| Target Completion Date: | December 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing project. |

City of Mertzon

| City of Mertzon (Past Action) – 1 | |
|--|--|
| Proposed Action: | Conservation; public awareness; and new water sources. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Mertzon |
| History of Damages: | The City has experienced drought conditions several times. A Drought Contingency Plan has been initiated. The plan is working well. Conservation and new water sources are a constant part of dealing with drought conditions. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Primary Hazard Addressed: | Drought |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | Annual loss of water revenue - \$9,000 Cost of new water supply - \$255,000 |
| Potential Funding Sources: | Grants, water revenues |
| Lead Agency/Department Responsible: | City of Mertzon |
| Target Completion Date: | To be determined |

| 2011 Analysis: |
|-----------------------|
| Rollover. |

City of Mertzon (Past Action) – 2

| | |
|-------------------------------|---|
| Proposed Action: | Assist in clean-up of public property; notify Red Cross. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Mertzon |
| History of Damages: | Hail has damaged city property and worked with other entities to provide relief for citizens. |

| | |
|--|----------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hail |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,800 (equipment, fuel, labor) |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Mertzon |
| Target Completion Date: | Ongoing |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Previous Actions

City of Mertzon (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Support local volunteer fire department. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Mertzon |
| History of Damages: | Range fires could impact the City because of the rural nature of the City. |

| | |
|--|--------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | 10% of Irion County allocation |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Mertzon |
| Target Completion Date: | Ongoing |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Previous Actions

| City of Mertzon (Past Action) – 4 | |
|--|---|
| Proposed Action: | Public awareness; relief for victims by notifying Red Cross. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Mertzon |
| History of Damages: | The City has experienced flooding in low lying areas several times in the City’s history. People in these areas have been told of historical events and water levels. |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Mertzon |
| Target Completion Date: | Ongoing |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

Previous Actions

City of Mertzon (Past Action) – 5

| | |
|-------------------------------|--|
| Proposed Action: | Notify Red Cross; clear roads of debris. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Mertzon |
| History of Damages: | The City has cleared debris from roads. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$800 (equipment, fuel, labor for 2 days) |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Mertzon |
| Target Completion Date: | Continuous |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

City of Mertzon (Past Action) – 6

| | |
|-------------------------------|--|
| Proposed Action: | Inform citizens to be aware of their surroundings. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Mertzon |
| History of Damages: | Reduce risk of a terrorist event. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Terrorism |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Mertzon |
| Target Completion Date: | Ongoing |

| |
|---|
| 2011 Analysis: |
| The City has a monthly newsletter that is emailed through the Blackboard System- especially during disasters. |

Kimble County

| Kimble County (Past Action) – 1 | |
|--|---|
| Proposed Action: | Implement a flood early warning system and response plan (Reverse 911). |
| BACKGROUND INFORMATION | |
| Site and Location: | Kimble County |
| History of Damages: | Kimble County is located in the Texas Hill Country. The County has more linear miles of running water than any other county in Texas. History of flooding is repeated on an annual basis somewhere in the County. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------------|
| Primary Hazard Addressed: | Flood, Tornado, Other Disasters |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$250,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Kimble County Commissioner’s Court |
| Target Completion Date: | January 1, 2009 |

| 2011 Analysis: |
|-----------------------|
| Ongoing action. |

Kimble County (Past Action) – 2

| | |
|-------------------------------|---|
| Proposed Action: | Track and record high water marks after a flood. |
| BACKGROUND INFORMATION | |
| Site and Location: | Kimble County |
| History of Damages: | Flooding has happened and will happen in the future. Flooding data is vital to take precautionary measures. |

| | |
|--|------------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very high |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Kimble County Commissioner’s Court |
| Target Completion Date: | January 1, 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing action. |

Kimble County (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Implement and expand rainfall observer program utilizing volunteers. |
| BACKGROUND INFORMATION | |
| Site and Location: | Kimble County |
| History of Damages: | Historically, residents of Kimble County have observed and reported rainfall and flooding. |

| | |
|--|------------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Kimble County Commissioner’s Court |
| Target Completion Date: | January 1, 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Previous Actions

| Kimble County (Past Action) – 4 | |
|--|--|
| Proposed Action: | Implement warning system on IH-10. |
| BACKGROUND INFORMATION | |
| Site and Location: | Kimble County |
| History of Damages: | Ice storms occur routinely during winter months; floods occur throughout the year. A need to inform the motoring public is a constant. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------------|
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Kimble County Commissioner’s Court |
| Target Completion Date: | January 1, 2006 |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

Kimble County (Past Action) – 5

| | |
|-------------------------------|---|
| Proposed Action: | Distribute flood insurance handouts with all permit applications. |
| BACKGROUND INFORMATION | |
| Site and Location: | Kimble County |
| History of Damages: | Kimble County has a high potential for flooding. |

| | |
|--|------------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Kimble County Commissioner’s Court |
| Target Completion Date: | January 1, 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Rollover. |

City of Junction

| City of Junction (Past Action) – 1 | |
|---|--|
| Proposed Action: | Implement a flood early warning system and response plan (Reverse 911). |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| History of Damages: | The City of Junction is located at the confluence of the North Llano and South Llano Rivers. Flooding is an ongoing problem. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------------|
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$250,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Junction, City Council |
| Target Completion Date: | January 1, 2009 |

| 2011 Analysis: |
|-----------------------|
| Completed. |

City of Junction (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Track and record high water marks following a flood. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| History of Damages: | Flooding is an ongoing problem. |

| | |
|--|--------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Junction, City Council |
| Target Completion Date: | January 1, 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

City of Junction (Past Action) – 3

| | |
|-------------------------------|---|
| Proposed Action: | Implement or expand rainfall observer program utilizing volunteers. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| History of Damages: | County residents observe rainfall amounts and rises in flood waters and report them to the City/County. |

| | |
|--|--------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$200 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Junction, City Council |
| Target Completion Date: | January 1, 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Previous Actions

City of Junction (Past Action) – 4

| | |
|-------------------------------|--|
| Proposed Action: | Dredge lake. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| History of Damages: | Gravel bar may block intake of the City water supply due to flood. Over the years flooding has caused gravel to flow towards intake. |

| | |
|--|-----------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3 – 5 million |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City Council |
| Target Completion Date: | January 1, 2006 |

| |
|--------------------------|
| 2011 Analysis: |
| Not completed, rollover. |

City of Junction (Past Action) – 5

| | |
|-------------------------------|--|
| Proposed Action: | Organize a command center. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| History of Damages: | Need a command center equipped with multiple phones, radios, white boards, computer connections, maps, desks, generator power, copier, computer with PowerPoint to be able to conduct emergency operations in the event of a major disaster. |

| | |
|--|-----------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | All Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City Council |
| Target Completion Date: | January 1, 2006 |

| |
|---|
| 2011 Analysis: |
| Completed. The County has a command center that they use. |

City of Junction (Past Action) – 6

| | |
|-------------------------------|--|
| Proposed Action: | Educate the public on use of the emergency sirens. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| History of Damages: | We have sirens located strategically within the community, but most residents are not aware of the meaning of the different signals the sirens make. |

| | |
|--|---------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado, Thunderstorm, Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Junction, City Council |
| Target Completion Date: | January 1, 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

City of Junction (Past Action) – 7

| | |
|-------------------------------|---|
| Proposed Action: | Educate residents about xeriscaping. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| History of Damages: | Landscaping that requires less water will ease our burden on our water treatment plant and conserve our supply. |

| | |
|--|--------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Junction, City Council |
| Target Completion Date: | January 1, 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

City of Junction (Past Action) – 8

| | |
|-------------------------------|---|
| Proposed Action: | Distribute flood insurance handouts with all permit applications. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| History of Damages: | Flooding is an ongoing problem. Often people are unaware of the actions and procedures they need to consider. |

| | |
|--|--------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Junction, City Council |
| Target Completion Date: | January 1, 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

City of Junction (Past Action) – 9

| | |
|-------------------------------|---|
| Proposed Action: | Backup generator for water plant. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| History of Damages: | In the past, had a tree fall across an electric line that supplies electricity to river pumps. The only way we knew about this is after we ran out of water. By the time we got enough water back in the tanks to pump, we had been down for approximately 12 hours. With a standby generator, probably would have had water back in 3 hours. |

| | |
|--|-----------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$7,500 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City Council |
| Target Completion Date: | January 1, 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

McCulloch County

| McCulloch County (Past Action) – 1 | |
|---|---|
| Proposed Action: | Establish and implement burning standards in McCulloch County that includes instruction in proper technique, notification and planning. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| History of Damages: | Improper use of the agricultural controlled burn often results in wildfire. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------------|
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | Unknown |
| Potential Funding Sources: | Private funds |
| Lead Agency/Department Responsible: | McCulloch County Burn Association |
| Target Completion Date: | December 2004 |

| 2011 Analysis: |
|-----------------------|
| Completed. |

McCulloch County (Past Action) – 2

| | |
|-------------------------------|---|
| Proposed Action: | Develop a program to distribute NOAA “All Hazards” radios for early warning of rural residents. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| History of Damages: | Currently, there is no formal warning system for many residents of the rural areas of the County. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm, Hail, Tornado, Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$7,500 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | McCulloch County Emergency Management Team |
| Target Completion Date: | 2006 |

| |
|--------------------------|
| 2011 Analysis: |
| Not completed, rollover. |

Previous Actions

McCulloch County (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Document and map road locations that are likely to result in flooded road crossings in flash flood events. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| History of Damages: | In rural areas, flash floods cause hazards because of the lack of marked and measured road crossings. Crews mark or block those crossings after they are reported. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | McCulloch County Emergency Response Team |
| Target Completion Date: | 2006 |

| |
|-------------------------------------|
| 2011 Analysis: |
| Currently in development, rollover. |

McCulloch County (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Develop drought contingency plans outlining actions to take at varying levels of drought. These plans will include public education, appropriate crisis response, wildlife and disease management, recovery plans for economic losses and emergency water resource development. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| History of Damages: | Drought is a fairly common occurrence in McCulloch County. While the primary public water source relies on a stable aquifer; one of the primary industries, agriculture, relies heavily on water availability for stock, farm uses, crops, and fire protection. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,500 |
| Potential Funding Sources: | To be determined |
| Lead Agency/Department Responsible: | McCulloch County Agricultural Extension Service |
| Target Completion Date: | 2005 |

| |
|--|
| 2011 Analysis: |
| Completed. The County reviews it periodically. |

McCulloch County (Past Action) – 5

| | |
|-------------------------------|---|
| Proposed Action: | Create a hazmat education team that provides educational opportunities for responders and educational materials and resources for the public. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| History of Damages: | McCulloch County incurs an inordinate amount of hazardous material traffic for its population and proper reporting and response procedures are critical to effective response with limited resources. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | McCulloch County Emergency Management Team |
| Target Completion Date: | December 2005 |

| |
|---|
| 2011 Analysis: |
| Partially completed, currently have a hazmat team with the local fire department. |

McCulloch County (Past Action) – 6

| | |
|-------------------------------|--|
| Proposed Action: | Provide public education for preparing for extended power outages and create a “hot sheet” of rural citizens that have critical health or other issues that will be adversely affected by an extended power outage for use by emergency dispatch services. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| History of Damages: | In rural areas of the County, extended power outages are fairly rare, but those who rely on electricity for critical health care equipment could be put in peril before crews could be notified and dispatched. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | McCulloch County Emergency Response Team |
| Target Completion Date: | 2006 |

| |
|---|
| 2011 Analysis: |
| This action is in the development stages, rollover. |

Town of Melvin

| Town of Melvin (Past Action) – 1 | |
|---|---|
| Proposed Action: | Acquire a centrally located, properly designed and hazard-resistant public shelter. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Melvin |
| History of Damages: | The Town of Melvin, being located in west central Texas, is susceptible to high winds and tornadoes. Additionally, a large portion of the community is elderly, with limited incomes; many cannot afford any form of adequate shelter against these harsh storms. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------|
| Primary Hazard Addressed: | Tornado, Thunderstorm |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$750,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Melvin, City Council |
| Target Completion Date: | 2010 |

| 2011 Analysis: |
|-----------------------|
| Ongoing, rollover. |

Town of Melvin (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Build a water filtration system. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Melvin |
| History of Damages: | The Town of Melvin, being located in West Central Texas, experiences many days and months of extreme heat and drought. The city’s current water source is slightly high in dangerous particles such as radon. This problem reaches extreme conditions during times of drought. |

| | |
|--|------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$125,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Melvin, City Council |
| Target Completion Date: | 2010 |

| |
|--|
| 2011 Analysis: |
| Completed a year ago. Built a reverse osmosis plant. |

Town of Melvin (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Educate the public on extreme heat/drought safety and health issues. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Melvin |
| History of Damages: | The Town of Melvin, being located in West Central Texas, experiences many days and months of extreme heat. Additionally, a large portion of the community is elderly, and more susceptible to the dangers of these extreme temperatures. |

| | |
|--|------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$200 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Town of Melvin, City Council |
| Target Completion Date: | 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Menard County

| Menard County (Past Action) – 1 | |
|--|---|
| Proposed Action: | Implement early warning system. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of winter storms. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Primary Hazard Addressed: | Winter Storm |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Menard County, Emergency Management, CVCOG |
| Target Completion Date: | January 1, 2007 |

| 2011 Analysis: |
|---|
| This is partially completed, with funding resources being researched to expand. |

Previous Actions

Menard County (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Implement early warning system. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County experienced a severe wildfire in 1999. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Menard County, Emergency Management, CVCOG |
| Target Completion Date: | January 1, 2007 |

| |
|--|
| 2011 Analysis: |
| See Above, this is partially completed, with funding resources being researched to expand. |

Menard County (Past Action) – 3

| | |
|-------------------------------|---|
| Proposed Action: | Implement early warning system and response plan for thunderstorms, wind, hail and tornadoes. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of severe thunderstorms and high winds. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm, Wind, Hail, Tornado |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Menard County, Emergency Management, CVCOG |
| Target Completion Date: | January 1, 2007 |

| |
|--|
| 2011 Analysis: |
| This should be deferred and included in the Plan Update. Due to funding it has not been completed. |

Menard County (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Implement a flood early warning system and response plan. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of flash floods. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Menard County, Emergency Management, CVCOG |
| Target Completion Date: | January 1, 2007 |

| |
|--|
| 2011 Analysis: |
| This should be deferred and included in the Plan Update. Due to funding it has not been completed. |

Menard County (Past Action) – 5

| | |
|-------------------------------|---|
| Proposed Action: | Implement maintenance program for clearing debris from drains and culverts. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of flash floods. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$5,000 per year |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County |
| Target Completion Date: | August 1, 2004 |

| |
|--|
| 2011 Analysis: |
| Completed and is ongoing in current plans and policies, could be expanded. |

Menard County (Past Action) – 6

| | |
|-------------------------------|---|
| Proposed Action: | Implement maintenance program for clearing debris from bridges. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of flash floods. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$5,000 per year |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County |
| Target Completion Date: | August 1, 2004 |

| |
|---|
| 2011 Analysis: |
| Is completed and ongoing through current plans and policies, could be expanded. |

Menard County (Past Action) – 7

| | |
|-------------------------------|---|
| Proposed Action: | Utilize NOAA “All Hazards” radios for early warning and post-event information. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of hailstorms. |

| | |
|--|-----------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hail |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Menard County |
| Target Completion Date: | January 1, 2007 |

| |
|---|
| 2011 Analysis: |
| Defer to Plan Update, due to funding has not been started. Research has been conducted for placement. This needs to first include the NOAA “All Hazards” radio repeater and installing, which should cost \$25,000. |

Menard County (Past Action) – 8

| | |
|-------------------------------|--|
| Proposed Action: | Research alternative sources of feed, water and shelter for livestock. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of winter storms. |

| | |
|--|----------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Winter Storm |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,500 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, Extension Service |
| Target Completion Date: | January 10, 2004 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Menard County (Past Action) – 9

| | |
|-------------------------------|--|
| Proposed Action: | Implement burn bans and fireworks bans as indicated by forestry service. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County experienced a severe wildfire in 1999. |

| | |
|--|---------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County |
| Target Completion Date: | As needed (ongoing) |

| |
|---|
| 2011 Analysis: |
| Completed and ongoing through current plans and policies. |

Menard County (Past Action) – 10

| | |
|-------------------------------|---|
| Proposed Action: | Train volunteer weather watchers. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | This would prevent loss of human life or human injury and livestock loss. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, Emergency Management, City of Menard, VFD |
| Target Completion Date: | To be determined |

| |
|---|
| 2011 Analysis: |
| Has been completed and is ongoing every year through current plans, can be removed. |

Previous Actions

| Menard County (Past Action) – 11 | |
|---|--|
| Proposed Action: | Designate public tornado shelters. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | This would prevent loss of human life or injury. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------------------|
| Primary Hazard Addressed: | Tornado |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, Emergency Management |
| Target Completion Date: | January 1, 2006 |

| 2011 Analysis: |
|-----------------------|
| Rollover. |

Previous Actions

| Menard County (Past Action) – 12 | |
|---|--|
| Proposed Action: | Encourage land owners to construct fire lanes around property. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County experienced a severe wildfire in 1999. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------------|
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, Extension Services |
| Target Completion Date: | As needed (ongoing) |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

Menard County (Past Action) – 13

| | |
|-------------------------------|---|
| Proposed Action: | Promote the availability of crop insurance. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of hailstorms which have caused damage to property. |

| | |
|--|-----------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hail |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, Extension Services |
| Target Completion Date: | January 8, 2004 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Previous Actions

| Menard County (Past Action) – 14 | |
|---|--|
| Proposed Action: | Provide water conservation education and incentives for low-flow plumbing and toilets, efficient washers, and rain harvesting. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Numerous drought events have occurred in recent years causing damage to property. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------------------|
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, Menard Water District |
| Target Completion Date: | June 1, 2005 |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

Previous Actions

| Menard County (Past Action) – 15 | |
|---|--|
| Proposed Action: | Provide water conservation education for farmers' improved irrigation and tillage practices. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Numerous drought events have occurred in recent years causing damage to property. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, Extension Service, Soil and Water Conservation Service |
| Target Completion Date: | June, 1, 2005 |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

Previous Actions

Menard County (Past Action) – 16

| | |
|-------------------------------|---|
| Proposed Action: | Promote water and energy conservation on a local government level. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Numerous drought events have occurred in recent years causing damage to property. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, Menard Water District, City of Menard |
| Target Completion Date: | June 1, 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Menard County (Past Action) – 17

| | |
|-------------------------------|--|
| Proposed Action: | Implement early warning system. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | This would prevent human life loss or injury and livestock loss. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident, Fuel Pipeline |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Menard County, Emergency Management, CVCOG |
| Target Completion Date: | January 1, 2007 |

| |
|---|
| 2011 Analysis: |
| This is partially completed, with funding resources being researched to expand. |

Menard County (Past Action) – 18

| | |
|-------------------------------|--|
| Proposed Action: | Maintain natural environmental features as wind buffers. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of thunderstorms and high winds. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm, Tornado |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County |
| Target Completion Date: | As needed (ongoing) |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Previous Actions

| Menard County (Past Action) – 19 | |
|---|--|
| Proposed Action: | Keep debris that can be wind-blown removed from county road right-of-ways. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of thunderstorms and high winds. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------|
| Primary Hazard Addressed: | Thunderstorm, Tornado |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County |
| Target Completion Date: | As needed (ongoing) |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

Previous Actions

| Menard County (Past Action) – 20 | |
|---|---|
| Proposed Action: | Implement a tree trimming program that routinely clears limbs hanging in right-of-ways. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | Menard County has a history of winter storms. |

| MITIGATION ACTION DETAILS | |
|--|---------------------|
| Primary Hazard Addressed: | Winter Storm |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$4,000 per year |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County |
| Target Completion Date: | As needed (ongoing) |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

| Menard County (Past Action) – 21 | |
|---|---|
| Proposed Action: | Educate public about household hazardous materials and other hazardous materials. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | This action would prevent human injury or loss of life or livestock loss. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Primary Hazard Addressed: | Hazardous Material Incident, Fuel Pipeline Failure |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,500 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, Extension Service |
| Target Completion Date: | As needed (ongoing) |

| 2011 Analysis: |
|--|
| Has been completed and is ongoing based on policy. |

Menard County (Past Action) – 22

| | |
|-------------------------------|---|
| Proposed Action: | Train personnel to handle emergencies. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| History of Damages: | This action would prevent human injury or loss of life or livestock loss. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident, Fuel Pipeline Failure |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, VFD |
| Target Completion Date: | As needed (ongoing) |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

City of Menard

| City of Menard (Past Action) – 1 | |
|---|---|
| Proposed Action: | Flood proof sewage treatment plants in flood hazard-low lying area. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of flooding. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------------|
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$2,000,000 |
| Potential Funding Sources: | General revenues, grants or bonds |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | October 2009 |

| 2011 Analysis: |
|---|
| Partially completed with funding secured for second phase. Continue in Plan Update. |

City of Menard (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Ensure capital improvement projects adhere to “no adverse impact” regulations. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of flooding. |

| | |
|--|-----------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$2,000,000 |
| Potential Funding Sources: | General revenues, grants or bonds |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | October 2009 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

City of Menard (Past Action) – 3

| | |
|-------------------------------|---|
| Proposed Action: | Implement early warning system and plan. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | This would prevent loss of human life or injury and livestock loss. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | City of Menard, Menard County, Emergency Management, CVCOG |
| Target Completion Date: | January 1, 2007 |

| |
|---|
| 2011 Analysis: |
| Partially completed through siren placement in city, trying to secure funding to expand and have added a Reverse 911 system. Keep in Plan Update. |

City of Menard (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Implement early warning system. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard experienced a severe wildfire in 1999. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | City of Menard, Menard County, Emergency Management, CVCOG |
| Target Completion Date: | January 1, 2007 |

| |
|---|
| 2011 Analysis: |
| This is partially completed, with funding resources being researched to expand. |

City of Menard (Past Action) – 5

| | |
|-------------------------------|--|
| Proposed Action: | Implement early warning system and plan. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of damaging hailstorms. |

| | |
|--|--------------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hail |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Menard County, City of Menard, CVCOG |
| Target Completion Date: | January 1, 2007 |

| |
|---|
| 2011 Analysis: |
| Partially completed, see above early warning objective. |

Previous Actions

City of Menard (Past Action) – 6

| | |
|-------------------------------|--|
| Proposed Action: | Implement early warning system. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of severe thunderstorms and high winds. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm, Tornado |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Menard County, City of Menard, Emergency Management, CVCOG |
| Target Completion Date: | January 1, 2007 |

| |
|---|
| 2011 Analysis: |
| Partially completed, see above early warning objective. |

City of Menard (Past Action) – 7

| | |
|-------------------------------|---|
| Proposed Action: | Implement a flood early warning system and response and plan. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of frequent flash flooding. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$30,000 per year |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Menard County, Emergency Management, CVCOG, City of Menard |
| Target Completion Date: | January 1, 2007 |

| |
|--|
| 2011 Analysis: |
| This should be deferred and included in the Plan Update. Due to funding it has not been completed. |

City of Menard (Past Action) – 8

| | |
|-------------------------------|--|
| Proposed Action: | Have NOAA “All Hazards” radios for early warning and post-event information. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of hailstorms. |

| | |
|--|-----------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hail |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | January 1, 2007 |

| |
|--|
| 2011 Analysis: |
| Continue in Plan Update, due to funding has not been started. Research has been conducted for placement. This needs to first include the NOAA “All Hazards” radio repeater and installing, which should cost \$25,000. |

City of Menard (Past Action) – 9

| | |
|-------------------------------|--|
| Proposed Action: | Designate public tornado shelters. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | This would prevent loss of human lives, human injury or loss of livestock. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard, Menard County, Emergency Management |
| Target Completion Date: | January 1, 2006 |

| |
|---|
| 2011 Analysis: |
| Completed through planning process and implemented. Can be removed. |

Previous Actions

City of Menard (Past Action) – 10

| | |
|-------------------------------|--|
| Proposed Action: | Train volunteer weather watchers. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | Prevent loss of human life or human injury and livestock loss. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard, Menard County, VFD, Emergency Management |
| Target Completion Date: | January 1, 2006 |

| |
|---|
| 2011 Analysis: |
| Has been completed and is ongoing every year through current plans, can be removed. |

Previous Actions

City of Menard (Past Action) – 11

| | |
|-------------------------------|---|
| Proposed Action: | Implement maintenance program for clearing debris from drains and culverts. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of frequent flash flooding. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 per year |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | Ongoing |

| |
|---|
| 2011 Analysis: |
| Completed and is ongoing through current plans and policies. Potential for expansion. |

Previous Actions

City of Menard (Past Action) – 12

| | |
|-------------------------------|---|
| Proposed Action: | Implement maintenance program for clearing debris from bridges. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of frequent flash flooding. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 per year |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | Ongoing |

| |
|---|
| 2011 Analysis: |
| Is completed and ongoing through current plans and policies. Could be expanded. |

Previous Actions

City of Menard (Past Action) – 13

| | |
|-------------------------------|---|
| Proposed Action: | Remove downed trees and fire fuels that increase fire risk. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard experienced a severe wildfire in 1999. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | Ongoing |

| |
|--|
| 2011 Analysis: |
| Needs to be deferred to Plan Update due to funding, has been started at a response level but not mitigation level. |

Previous Actions

City of Menard (Past Action) – 14

| | |
|-------------------------------|--|
| Proposed Action: | Implement burn bans and fireworks bans as indicated by forestry service. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | Implementation of this action will prevent property loss and loss of human life or injuries. |

| | |
|--|-------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | Menard County, City of Menard |
| Target Completion Date: | Ongoing |

| |
|---|
| 2011 Analysis: |
| Completed and ongoing through current plans and policies. |

City of Menard (Past Action) – 15

| | |
|-------------------------------|---|
| Proposed Action: | Implement early warning system. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | Implementation of this action would prevent human life loss or injury and livestock loss. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident, Fuel Pipeline Failure |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | City of Menard, Menard County, Emergency Management, CVCOG |
| Target Completion Date: | January 1, 2007 |

| |
|---|
| 2011 Analysis: |
| This is partially completed, with funding resources being researched to expand. |

Previous Actions

City of Menard (Past Action) – 16

| | |
|-------------------------------|---|
| Proposed Action: | Maintain natural environmental features as wind buffers. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of thunderstorms and high winds. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm, Tornado |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | As needed (ongoing) |

| |
|--|
| 2011 Analysis: |
| Is ongoing as needed per in plans SOP. |

City of Menard (Past Action) – 17

| | |
|-------------------------------|---|
| Proposed Action: | Adopt routine fire hydrant maintenance. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard experienced a severe fire in 1999. |

| | |
|--|---------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3,000 per year |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard, VFD |
| Target Completion Date: | Ongoing |

| |
|---|
| 2011 Analysis: |
| Needs to be deferred to Plan Update, has been started due to water improvement project but ongoing maintenance of older hydrants needs to be addressed. |

City of Menard (Past Action) – 18

| | |
|-------------------------------|---|
| Proposed Action: | Prohibit dumping in streams and ditches. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of frequent flooding/flash flooding. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | Ongoing |

| |
|--|
| 2011 Analysis: |
| Completed and is ongoing through solid waste project/grants and enforcement. |

City of Menard (Past Action) – 19

| | |
|-------------------------------|---|
| Proposed Action: | Educate public about household hazardous materials and other hazardous materials. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | Implementation would prevent human injury or loss of life. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident, Fuel Pipeline Failure |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,500 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard, Extension Service |
| Target Completion Date: | As needed (ongoing) |

| |
|--|
| 2011 Analysis: |
| Has been completed and is ongoing based on policy. |

City of Menard (Past Action) – 20

| | |
|-------------------------------|---|
| Proposed Action: | Train personnel to handle emergencies. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | This would prevent human life loss or injury. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident, Fuel Pipeline Failure |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard, VFD |
| Target Completion Date: | As needed (ongoing) |

| |
|--|
| 2011 Analysis: |
| Has been implemented and is ongoing on a limited basis. Needs to continue. |

Previous Actions

City of Menard (Past Action) – 21

| | |
|-------------------------------|---|
| Proposed Action: | Ensure public has access to local firm maps/flood map ordering information. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of frequent flooding. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$300 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | Ongoing |

| |
|--|
| 2011 Analysis: |
| Needs to be deferred and addressed in Plan Update, is inadequate at this time. |

City of Menard (Past Action) – 22

| | |
|-------------------------------|---|
| Proposed Action: | Place flood insurance materials/mortgage lending mandates in libraries. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of frequent flooding. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$200 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | As needed |

| |
|---|
| 2011 Analysis: |
| See above, needs to be deferred into the Plan Update and continued. |

Previous Actions

| City of Menard (Past Action)-23 | |
|--|---|
| Proposed Action: | Identify repetitive loss properties for future hazard mitigation grant program funding. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of frequent flooding. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------------|
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$200 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard, EMC, Menard County |
| Target Completion Date: | Ongoing |

| 2011 Analysis: |
|---|
| Has been started, not completed, is ongoing on a limited level, can be improved and needs to be continued in Plan Update. |

City of Menard (Past Action) – 24

| | |
|-------------------------------|--|
| Proposed Action: | Maintain records of elevation certificates (E.C.) issued for all new/improved buildings in SFHA's; make readily available for public access. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of frequent flooding. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard |
| Target Completion Date: | Ongoing |

| |
|---|
| 2011 Analysis: |
| Is inadequate at this time due to rain, funding, and resources based in that order of importance. Needs to be improved and deferred into Plan Update. |

City of Menard (Past Action) – 25

| | |
|-------------------------------|--|
| Proposed Action: | Annually distribute flood protection/NFIP pamphlets to owners of flood prone property. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| History of Damages: | The City of Menard has a history of flooding. |

| | |
|--|---------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$700 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Menard, EMC |
| Target Completion Date: | Ongoing |

| |
|--|
| 2011 Analysis: |
| Needs to be conducted and deferred to Plan Update, has not occurred. |

Reagan County

| Reagan County (Past Action) – 1 | |
|--|--|
| Proposed Action: | Improve Emergency Management radio coverage and reception; expand early warning systems for hazard events. |
| BACKGROUND INFORMATION | |
| Site and Location: | Reagan County |
| History of Damages: | Reagan County has a history of tornadoes, hailstorms, thunderstorms and high winds. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Primary Hazard Addressed: | Multiple Hazards; Tornado, Hail, Thunderstorm, Wind |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$3,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Reagan County |
| Target Completion Date: | 2005 |

| 2011 Analysis: |
|-----------------------|
| Completed. |

| Reagan County (Past Action) – 2 | |
|--|---|
| Proposed Action: | Implement maintenance program to clear and remove debris. |
| BACKGROUND INFORMATION | |
| Site and Location: | Reagan County |
| History of Damages: | Reagan County has a history of flooding. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------|
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Reagan County |
| Target Completion Date: | 2005 |

| 2011 Analysis: |
|-----------------------|
| Rollover. |

| Reagan County (Past Action) – 3 | |
|--|--|
| Proposed Action: | Stay current on new technologies for fighting fires. |
| BACKGROUND INFORMATION | |
| Site and Location: | Reagan County |
| History of Damages: | To keep economic losses to a minimum. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------|
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Reagan County |
| Target Completion Date: | 2005 |

| 2011 Analysis: |
|-----------------------|
| Rollover. |

Previous Actions

| Reagan County (Past Action) – 4 | |
|--|---|
| Proposed Action: | Promote the availability of crop insurance. |
| BACKGROUND INFORMATION | |
| Site and Location: | Reagan County |
| History of Damages: | Reagan County experienced a heat wave in 1994 and numerous droughts since 1996. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------|
| Primary Hazard Addressed: | Drought |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$50 |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | USDA |
| Target Completion Date: | Ongoing |

| 2011 Analysis: |
|-----------------------|
| Rollover. |

Reagan County (Past Action) – 5

| | |
|-------------------------------|--|
| Proposed Action: | Develop a local hazmat team; create and practice neighborhood and community plans with drills and exercises. |
| BACKGROUND INFORMATION | |
| Site and Location: | Reagan County |
| History of Damages: | There was an oil spill in 2003 and numerous tank fires since 1998. |

| | |
|--|-----------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Reagan County |
| Target Completion Date: | 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Rollover. |

| Reagan County (Past Action) – 6 | |
|--|---|
| Proposed Action: | Conduct simulated disaster exercises; ensure that Emergency Management plan is in effect. |
| BACKGROUND INFORMATION | |
| Site and Location: | Reagan County |
| History of Damages: | This would help the County be ready for a disaster. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------|
| Primary Hazard Addressed: | Terrorism |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Reagan County, VFD |
| Target Completion Date: | Periodically, ongoing |

| 2011 Analysis: |
|-----------------------|
| Ongoing action. |

Reagan County (Past Action) – 7

| | |
|-------------------------------|--|
| Proposed Action: | Be in contact with TxDOT on road conditions. |
| BACKGROUND INFORMATION | |
| Site and Location: | Reagan County |
| History of Damages: | This action would give the public notice of road closures. |

| | |
|--|----------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Thunderstorm, Winter Storm |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants, general revenues |
| Lead Agency/Department Responsible: | Reagan County |
| Target Completion Date: | Ongoing |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing action. |

City of Big Lake

| City of Big Lake (Past Action) – 1 | |
|---|---|
| Proposed Action: | Implement a flood early warning system and response plan. Implement maintenance program for clearing debris from drains/culverts. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Big Lake |
| History of Damages: | Areas of the City flooded in each of the years from 1996-2003. |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Big Lake |
| Target Completion Date: | 2008 |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

City of Big Lake (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Obtain certification of communities by the National Weather Station Storm Ready communities. Improve emergency management radio coverage and reception. Expand early warning system for hazard events. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Big Lake |
| History of Damages: | Since 1996, the City has experienced a tornado, damaging high winds, hail and thunderstorms. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$3,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Big Lake |
| Target Completion Date: | 2005 |

| |
|---|
| 2011 Analysis: |
| City has radio coverage and reception during disasters, local with Reagan County. |

City of Big Lake (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Contingency plan for mandatory water rationing, impose excess use fees during water shortage; lawn watering rationing. Adopt an emergency water allocation plan. Public education of extreme heat and drought safety issues. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Big Lake |
| History of Damages: | Since 1996, the city has experienced a heat wave and in most of those years has had less than average rainfall and high temperatures. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Big Lake |
| Target Completion Date: | 2004 |

| |
|-----------------------|
| 2011 Analysis: |
| Action was completed. |

City of Big Lake (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Create and practice neighborhood plans with drills and exercises. Public education of hazmat risk, detection, and evacuation. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Big Lake |
| History of Damages: | In 2002, there was a hazard spill. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident, Fuel Pipeline Failure |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Big Lake |
| Target Completion Date: | 2005 |

| |
|----------------------------------|
| 2011 Analysis: |
| Ongoing project with the County. |

City of Big Lake (Past Action) – 5

| | |
|-------------------------------|--|
| Proposed Action: | Conduct simulated disaster exercises periodically to test plans and improve capabilities. Update emergency management plan periodically. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Big Lake |
| History of Damages: | Preparing for a “9-11” event. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Terrorism |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | \$2,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Big Lake, VFD |
| Target Completion Date: | 2005 |

| |
|---|
| 2011 Analysis: |
| Ongoing, work with Reagan County to update plans. |

Schleicher County

| Schleicher County (Past Action) – 1 | |
|--|---|
| Proposed Action: | Establish and/or acquire safe sites in public facilities (schools, police/fire) in the event evacuation of schools, residences, and businesses is necessary during severe weather or other hazards facing the region. Implement a public awareness campaign to ensure all citizens are familiar with evacuation routes and location of the nearest shelter. |
| BACKGROUND INFORMATION | |
| Site and Location: | Schleicher County |
| History of Damages: | Currently no system is in place to notify residents of area evacuation routes and safe shelters in the event of a disaster in the area. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Primary Hazard Addressed: | Multiple Hazards: Severe Weather, Drought, Wildfire, Hazardous Material Incident |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | County Sheriff Department, City of Eldorado fire/police |
| Target Completion Date: | 2005 |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

Previous Actions

| Schleicher County (Past Action) – 2 | |
|--|---|
| Proposed Action: | Purchase NOAA “All-Hazards” radios for early warning and post-event information and place in area schools, businesses, and critical care facilities utilizing public and private partnership funding. |
| BACKGROUND INFORMATION | |
| Site and Location: | Schleicher County |
| History of Damages: | Newer NOAA radios are currently not found in all area public facilities, schools, nursing homes, and hospitals. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3,000 |
| Potential Funding Sources: | Private businesses |
| Lead Agency/Department Responsible: | County Sheriff Department, City of Eldorado fire/police, private businesses as partners in the project |
| Target Completion Date: | 2005 |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

Previous Actions

Schleicher County (Past Action) – 3

| | |
|-------------------------------|---|
| Proposed Action: | Establish a hazard mitigation library or hazard information center for use by local residents and schools to educate the public about the top natural hazards affecting the CVCOG region. |
| BACKGROUND INFORMATION | |
| Site and Location: | Schleicher County |
| History of Damages: | Increase public awareness of the primary hazards facing the City of Eldorado and Schleicher County. |

| | |
|--|------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$250 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | County Judge, City Secretary |
| Target Completion Date: | 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

City of Eldorado

| City of Eldorado (Past Action) – 1 | |
|---|---|
| Proposed Action: | Provide 1,000 gallon capacity brush truck (wild firefighting unit). |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eldorado |
| History of Damages: | All water used to fight fires in the County has to be trucked to the scene. Many times water is several miles from the scene. Many times the trucks used to transport water early in the fire must wait until they are emptied before they can leave, by the time they return, the firefighters have run out of water. Additionally, the extra capacity within the city limits would aid in structural fires. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------|
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$95,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Eldorado Fire Department |
| Target Completion Date: | 2006 |

| 2011 Analysis: |
|-----------------------|
| Completed. |

City of Eldorado (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Provide portable drop tanks with minimum 4,000 gallon capacity to the volunteer fire department to enhance their water resource capacities. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eldorado |
| History of Damages: | All water used to fight fires in the County has to be trucked to the scene and many times water is several miles from the scene. Many times the trucks used to transport water early in the fire must wait until they are emptied before they can leave, by the time they return, the firefighters have run out of water. Additionally, the extra capacity within the city limits would aid in structural fires. |

| | |
|--|--------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$6,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Eldorado Fire Department |
| Target Completion Date: | 2008 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

City of Eldorado (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Expand the law enforcement center with an Incident Command Center with the space and equipment necessary to respond to a variety of multiple hazards. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eldorado |
| History of Damages: | The City of Eldorado and Schleicher County are vulnerable to a wide range of disasters. The current command center is unsuitable for any type of adequate response to these disasters. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Eldorado Fire Department and Schleicher County Sheriff's Office |
| Target Completion Date: | 2010 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

City of Eldorado (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Establish a hazard mitigation library or hazard information center for use by local residents and schools to educate the public about the top natural hazards affecting the CVCOG region. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eldorado |
| History of Damages: | Increase public awareness of the primary hazards facing the City of Eldorado and Schleicher County. |

| | |
|--|------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$250 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | County Judge, City Secretary |
| Target Completion Date: | 2005 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Sterling County

| Sterling County (Past Action) – 1 | |
|--|--|
| Proposed Action: | Coordinate wildfire hazard plan with other agencies/jurisdictions. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| History of Damages: | Sterling County has a history of fires. |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Sterling County |
| Target Completion Date: | 2005 |

| 2011 Analysis: |
|-----------------------|
| Ongoing. |

Sterling County (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Routinely clean and repair storm water drains. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| History of Damages: | The City of Sterling City has some flash flooding. |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling |
| Target Completion Date: | As needed |

| |
|-----------------------|
| 2011 Analysis: |
| Remove. |

Sterling County (Past Action) – 3

| | |
|-------------------------------|---|
| Proposed Action: | Conduct public education program on fire risk and wildfire mitigation, with the assistance of the Texas Forest Service. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| History of Damages: | Sterling County has a background of fires. |

| | |
|--|-----------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Sterling County |
| Target Completion Date: | As needed |

| |
|-----------------------|
| 2011 Analysis: |
| Rollover. |

Sterling County (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Educate residents about xeriscaping. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| History of Damages: | Sterling County has a background of drought and heat. |

| | |
|--|-------------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Sterling County - Extensive Service |
| Target Completion Date: | As needed |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Sterling County (Past Action) – 5

| | |
|-------------------------------|--|
| Proposed Action: | Develop and maintain a basic emergency plan that complies with state planning standards. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| History of Damages: | Sterling County has several miles of pipelines and several gas plants. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident, Fuel Pipeline Failure |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Sterling County |
| Target Completion Date: | Finished |

| |
|-----------------------------------|
| 2011 Analysis: |
| Completed, and updated regularly. |

Sterling County (Past Action) – 6

| | |
|-------------------------------|--|
| Proposed Action: | Prepare and advertise the local emergency evacuation plan, such as escape routes, in coordination with the Department of Transportation. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| History of Damages: | A tornado and high winds could occur in the City of Sterling City at any time. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado, Thunderstorm |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Sterling County |
| Target Completion Date: | Finished |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

City of Sterling City

| City of Sterling City (Past Action) – 1 | |
|--|---|
| Proposed Action: | Install quick-connect emergency generator hook-ups for critical facilities. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | We have had long periods of time with our power out due to storms. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------|
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Completed |

| 2011 Analysis: |
|-----------------------|
| Completed. |

Previous Actions

City of Sterling City (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Install early warning system for hazard events. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | In 2002, early warning system needed to be updated due to old age. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$8,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Has been completed |

| |
|------------------------------------|
| 2011 Analysis: |
| A siren system has been installed. |

City of Sterling City (Past Action) – 3

| | |
|-------------------------------|---|
| Proposed Action: | Adopt routine fire hydrant maintenance. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | There have been times in the past that the hydrants have been had to operate. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3,000 annually |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Ongoing |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing project. |

Previous Actions

| City of Sterling City (Past Action) – 4 | |
|--|--|
| Proposed Action: | Raise electrical components of sewage lift stations above BFE. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | In 2002, Concho River ran out of its banks and flooded river lift station. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------|
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Has been completed |

| 2011 Analysis: |
|-----------------------|
| Completed. |

City of Sterling (Past Action) – 5

| | |
|-------------------------------|---|
| Proposed Action: | Use stream restoration/channelization to ensure adequate drainage/diversion of storm water. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | In past there was bad drainage of storm water. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 per year |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Ongoing |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Previous Actions

City of Sterling City (Past Action) – 6

| | |
|-------------------------------|---|
| Proposed Action: | Survey and remove hazardous trees from drainage systems. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | Trees and brush have grown up next to the drainage system through the city over the past years. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Tornado, Thunderstorm |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Ongoing |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing project. |

City of Sterling City (Past Action) – 7

| | |
|-------------------------------|---|
| Proposed Action: | Retain and maintain natural vegetation in storm water channels. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | Vegetation in draws causes storm water backage if not maintained. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Ongoing |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing project. |

City of Sterling City (Past Action) – 8

| | |
|-------------------------------|---|
| Proposed Action: | Allow no vegetation or fire-resistant landscaping in easements. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | In past years, we have fires started in easements due to high vegetation. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Ongoing |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing project. |

Previous Actions

| City of Sterling City (Past Action) – 9 | |
|--|--|
| Proposed Action: | Implement a tree-trimming program that routinely clears tree limbs hanging in right-of-ways. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | Trees have grown over into the right-of-ways in the past and caused some damage. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------|
| Primary Hazard Addressed: | Tornado, Thunderstorm |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | |

| 2011 Analysis: |
|-----------------------|
| Ongoing project. |

Previous Actions

City of Sterling City (Past Action) – 10

| | |
|-------------------------------|--|
| Proposed Action: | Conduct public education program on fire risks and wildfire mitigation, with the assistance of the Texas Forest Service. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | We have had several structure fires and wildfires in the past that could have been avoided. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$200 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Ongoing |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing project. |

Previous Actions

| City of Sterling City (Past Action) – 11 | |
|---|---|
| Proposed Action: | Develop drought contingency plans outlining actions to take at varying levels of drought. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | There have been wells drying up, and lakes in the surrounding area drying up, or getting dangerously low. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------|
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$160 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Has been completed |

| 2011 Analysis: |
|------------------------------------|
| Completed, undergoing stage 2 now. |

Previous Actions

| City of Sterling City (Past Action) – 12 | |
|---|---|
| Proposed Action: | Develop an enforcement plan for implementing mandatory water rationing; impose excess use charges during times of water shortage; lawn watering restrictions. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | We have had a past history of high heat and drought. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------|
| Primary Hazard Addressed: | Drought, Excessive Heat |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Completed |

| 2011 Analysis: |
|-------------------------------------|
| Completed, on the contingency plan. |

City of Sterling City (Past Action) – 13

| | |
|-------------------------------|---|
| Proposed Action: | Assess local water supply and water treatment systems. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | In the past and present, everywhere in our country has been threatened by terrorist acts. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Terrorism |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Ongoing |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing. |

Previous Actions

City of Sterling City (Past Action) – 14

| | |
|-------------------------------|---|
| Proposed Action: | Bury utility lines to prevent ice buildup. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | Water lines too close to the surface in the past have frozen due to low temperatures. |

| | |
|--|--------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Winter Storm |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | N/A |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Completed |

| |
|--|
| 2011 Analysis: |
| Water lines are buried underground already, completed. |

City of Sterling City (Past Action) – 15

| | |
|-------------------------------|--|
| Proposed Action: | Develop capital improvements plan. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| History of Damages: | We have not had a capital improvements plan in the past to see where we stand until last year. |

| | |
|--|--------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Flood |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | City of Sterling City |
| Target Completion Date: | Completed |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing project. |

Sutton County

| Sutton County (Past Action) – 1 | |
|--|--|
| Proposed Action: | Purchase 6 chemical suits for two teams of three. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sutton County |
| History of Damages: | The City of Sonora and Sutton County have a number of chemical and gas field facilities that could create a hazardous material incident, which would endanger a large number of people. The Sonora VFD needs chemical suits for two teams. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Primary Hazard Addressed: | Hazardous Material Incident |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$12,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sonora City Council, Sutton County Commissioner’s Court |
| Target Completion Date: | 2008 |

| 2011 Analysis: |
|---|
| Not completed, rollover into Plan Update. |

Sutton County (Past Action) – 2

| | |
|-------------------------------|---|
| Proposed Action: | Purchase site detox equipment (tents, etc.) for two teams of three. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sutton County |
| History of Damages: | The City of Sonora and Sutton County have a number of chemical and gas field facilities that could create a hazardous material incident, which would endanger a large number of people. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sonora City Council, Sutton County Commissioner’s Court |
| Target Completion Date: | 2008 |

| |
|---|
| 2011 Analysis: |
| Set up at hospital, this action has been completed. |

Sutton County (Past Action) – 3

| | |
|-------------------------------|---|
| Proposed Action: | Purchase four hi-band digital capable radios for Sonora VFD. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sutton County |
| History of Damages: | Sonora VFD is part of all hazard mitigation in this area, having a leading role in rescue, evacuation and the like. Their radios are extremely old and do not work county-wide. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sonora City Council, Sutton County Commissioner’s Court |
| Target Completion Date: | 2008 |

| |
|-----------------------|
| 2011 Analysis: |
| Completed. |

Sutton County (Past Action) – 4

| | |
|-------------------------------|--|
| Proposed Action: | Develop extensive outside training program for all rescue personnel (law enforcement, fire department, EMS, hospital) for handling of hazards endemic to this area, particularly toxic situations, gas industry related explosions, and fires involving toxic material which require a higher level of training. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sutton County |
| History of Damages: | The City of Sonora and Sutton County have a number of chemical and gas field facilities that could create a hazardous material incident, which would endanger a large number of people. These situations have occurred before and will again. More knowledge and training would be beneficial. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$4,000 |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | City of Sonora City Council, Sutton County Commissioner's Court |
| Target Completion Date: | 2007 |

| |
|---|
| 2011 Analysis: |
| Partially completed, rollover into Plan Update. |

Sutton County (Past Action) – 5

| | |
|-------------------------------|---|
| Proposed Action: | Install a county-wide warning system (Reverse 911). |
| BACKGROUND INFORMATION | |
| Site and Location: | Sutton County |
| History of Damages: | Sutton County has no functional county-wide warning system. A Reverse 911 system would enable warning of selected population segments for multiple hazards. |

| | |
|--|------------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | All Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$250,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Sutton County Commissioner’s Court |
| Target Completion Date: | 2010 |

| |
|--|
| 2011 Analysis: |
| Completed, automatic telephone warning system purchased in 2009. |

Sutton County (Past Action) – 6

| | |
|-------------------------------|--|
| Proposed Action: | Develop and disseminate multi-hazard public awareness program, through newspaper inserts, distribution of printed leaflets, and other media exposure. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sutton County |
| History of Damages: | It has been a number of years since an extensive public information program has been done, warning residents what to do in the face of various hazards, including hailstorm, tornado, toxic emission, drought, flooding, lightning, etc. |

| | |
|--|------------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3,000 |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | Sutton County Commissioner’s Court |
| Target Completion Date: | 2007 |

| |
|--|
| 2011 Analysis: |
| Educational awareness programs about spills. |

City of Sonora

| City of Sonora (Past Action) – 1 | |
|---|--|
| Proposed Action: | Purchase 6 chemical suits for two teams of three. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sonora |
| History of Damages: | The City of Sonora and Sutton County have a number of chemical and gas field facilities that could create a hazardous material incident, which would endanger a large number of people. The Sonora VFD needs chemical suits for two teams. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Primary Hazard Addressed: | Hazardous Material Incident |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$12,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sonora City Council, Sutton County Commissioner’s Court |
| Target Completion Date: | 2008 |

| 2011 Analysis: |
|-----------------------|
| Rollover. |

Previous Actions

City of Sonora (Past Action) – 2

| | |
|-------------------------------|---|
| Proposed Action: | Purchase site detox equipment (tents, etc.) for two teams of three. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sonora |
| History of Damages: | The City of Sonora and Sutton County have a number of chemical and gas field facilities that could create a hazardous material incident, which would endanger a large number of people. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sonora City Council, Sutton County Commissioner’s Court |
| Target Completion Date: | 2008 |

| |
|-----------------------|
| 2011 Analysis: |
| Rollover. |

City of Sonora (Past Action) – 3

| | |
|-------------------------------|---|
| Proposed Action: | Purchase four hi-band digital capable radios for Sonora VFD. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sonora |
| History of Damages: | Sonora VFD is part of all hazard mitigation in this area, having a leading role in rescue, evacuation and the like. Their radios are extremely old and do not work county-wide. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sonora City Council, Sutton County Commissioner’s Court |
| Target Completion Date: | 2008 |

| |
|---|
| 2011 Analysis: |
| Purchases had been made for the police department, but not the fire department. |

Previous Actions

City of Sonora (Past Action) – 4

| | |
|-------------------------------|--|
| Proposed Action: | Develop extensive outside training program for all rescue personnel (law enforcement, fire department, EMS, hospital) for handling of hazards endemic to this area, particularly toxic situations, gas industry related explosions, and fires involving toxic material which require a higher level of training. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sonora |
| History of Damages: | The City of Sonora and Sutton County have a number of chemical and gas field facilities that could create a hazardous material incident, which would endanger a large number of people. These situations have occurred before and will again. More knowledge and training would be beneficial. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Hazardous Material Incident |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$4,000 |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | City of Sonora City council, Sutton County Commissioner’s Court |
| Target Completion Date: | 2007 |

| |
|--------------------------------|
| 2011 Analysis: |
| Partially completed, rollover. |

City of Sonora (Past Action) – 5

| | |
|-------------------------------|---|
| Proposed Action: | Install a county-wide warning system (Reverse 911). |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sonora |
| History of Damages: | Sutton County has no functional county-wide warning system. A Reverse 911 system would enable warning of selected population segments for multiple hazards. |

| | |
|--|------------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$250,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Sutton County Commissioner’s Court |
| Target Completion Date: | 2010 |

| |
|-----------------------|
| 2011 Analysis: |
| Rollover. |

City of Sonora (Past Action) – 6

| | |
|-------------------------------|--|
| Proposed Action: | Develop and disseminate multi-hazard public awareness program, through newspaper inserts, distribution of printed leaflets, and other media exposure. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sonora |
| History of Damages: | It has been a number of years since an extensive public information program has been done, warning residents what to do in the face of various hazards, including hailstorm, tornado, toxic emission, drought, flooding, lightning, etc. |

| | |
|--|------------------------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3,000 |
| Potential Funding Sources: | General revenues, grants |
| Lead Agency/Department Responsible: | Sutton County Commissioner’s Court |
| Target Completion Date: | 2007 |

| |
|-----------------------|
| 2011 Analysis: |
| Rollover. |

Tom Green County

| Tom Green County (Past Action) – 1 | |
|---|--|
| Proposed Action: | Purchase two repeaters for the fire communications system used by the VFDs, as well as six mobile radios per volunteer department. |
| BACKGROUND INFORMATION | |
| Site and Location: | Tom Green County |
| History of Damages: | The VFDs in Tom Green County respond to all emergency situations from vehicle accidents to fire to floods. There is currently no repeater system for the eleven VFDs within Tom Green County. All radio traffic from one department to the other, as well as from responding units to the requesting department must go through central dispatch. This has resulted in inadequate equipment being sent in mutual aid situations, or units traveling almost to the scene before being advised by dispatch that they are no longer needed, when they could have been advised considerably sooner, had adequate radio equipment been available. Additionally, most of the radios in the fire trucks are 20 years old or better, and were hand-me-downs when the departments got them. |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------------|
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | \$300,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Tom Green County commissioner’s Court |
| Target Completion Date: | FY 2006 |

| 2011 Analysis: |
|-----------------------|
| Completed. |

Tom Green County (Past Action) – 2

| | |
|-------------------------------|--|
| Proposed Action: | Provide portable drop tanks with a minimum 3,000 gallon capacity to each volunteer fire department to enhance their water resource capacities. |
| BACKGROUND INFORMATION | |
| Site and Location: | Tom Green County |
| History of Damages: | Numerous residences and other structures have been lost, or have suffered substantial damage because of a lack of adequate water supply. All water used to fight fires in Tom Green County outside the incorporated city limits of San Angelo has to be trucked onto the scene. Many times the water source is several miles from the scene. Additionally, many times the trucks used to transport the water early in the fire must wait until they are emptied by the firefighting process before they can leave, and while they are gone to replenish their supplies, the firefighters run out of water. |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------------|
| Primary Hazard Addressed: | Wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$16,500 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Tom Green County Commissioner’s Court |
| Target Completion Date: | FY 2005 |

| 2011 Analysis: |
|---|
| Partially completed, rollover to Plan Update. |

Tom Green County (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Create a facility that will act as the alternate Emergency Operations Center (EOC) and will provide emergency backup technology systems allowing the city to continue operating should the primary EOC or the primary Information Management location be destroyed or rendered incapable of operation. |
| BACKGROUND INFORMATION | |
| Site and Location: | Tom Green County |
| History of Damages: | The City and County have an outdated ill-equipped facility as a primary EOC. The City has no backup facility for Information Management. A new modernized facility could serve several purposes before, during and after a disaster. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | General funds, grants, inter-jurisdictional assistance |
| Lead Agency/Department Responsible: | City of San Angelo |
| Target Completion Date: | FY 2006 |

| |
|--|
| 2011 Analysis: |
| Completed, has written agreements to use the City Council building and the West Texas Training Center as backup. |

City of San Angelo

| City of San Angelo (Past Action) – 1 | |
|---|---|
| Proposed Action: | Develop a program of public awareness of low water crossings, alternate travel routes, and the dangers associated with those locations during times of heavy rains. Implement an ordinance for retrieving the cost of water rescues involving motorists stranded in marked low water crossings. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo |
| History of Damages: | The city fire rescue teams are called upon routinely immediately after heavy rains to rescue stranded motorists. Although the low water crossings are marked with signs, additional public awareness needs to be considered. |

| MITIGATION ACTION DETAILS | |
|--|--------------------|
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Very High |
| Estimated Cost: | |
| Potential Funding Sources: | General funds |
| Lead Agency/Department Responsible: | City of San Angelo |
| Target Completion Date: | FY 2006 |

| 2011 Analysis: |
|---|
| Not publicized, but some of the low lying areas are barricaded. |

City of San Angelo (Past Action) – 2

| | |
|-------------------------------|---|
| Proposed Action: | Develop a program of public awareness to identify safe sheltering locations when pre-disaster imminent danger warnings, such as sirens, provide time to relocate and to identify temporary sheltering locations for those who have lost their homes or are unable to return to their homes due to a disaster. Ensure disaster relief provisions are available for those locations to include water, food, blankets, sanitary facilities, cots, etc. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo |
| History of Damages: | The City does have some shelters located throughout the City, but they would not be adequate for a major disaster where large numbers of citizens had to be relocated. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | General funds, grants |
| Lead Agency/Department Responsible: | City of San Angelo |
| Target Completion Date: | FY 2006 |

| |
|-----------------------|
| 2011 Analysis: |
| Ongoing project. |

City of San Angelo (Past Action) – 3

| | |
|-------------------------------|--|
| Proposed Action: | Annually, exercise the roles of city employees who are assigned specific tasks in the event of an emergency. Ensure appropriate personnel are properly trained and receive necessary continuing education including permit inspectors, EOC personnel, and EM personnel. Involve outlying communities, such as Grape Creek, Water Valley, Christoval, etc., in exercises. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo |
| History of Damages: | Traditionally, the city exercises involve city resources and city personnel. Occasionally, multi-organizational exercises are conducted with GAFB. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | General funds, grants, inter-jurisdictional assistance |
| Lead Agency/Department Responsible: | City of San Angelo |
| Target Completion Date: | FY 2006 |

| |
|--|
| 2011 Analysis: |
| Has an EOC and runs practice routes to prepare for an emergency. |

Previous Actions

City of San Angelo (Past Action) – 4

| | |
|-------------------------------|---|
| Proposed Action: | Provide proper design criteria for private residence safe rooms and offer incentives for construction, such as waving permit fees and property value exclusions for safe room square footage. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo |
| History of Damages: | There are a large number of older wood frame homes in the City of San Angelo which may not withstand the force of a tornado or extremely high winds. |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | General funds, grants |
| Lead Agency/Department Responsible: | City of San Angelo |
| Target Completion Date: | FY 2007 |

| |
|--------------------------|
| 2011 Analysis: |
| Not completed, rollover. |

| City of San Angelo (Past Action)-5 | |
|---|---|
| Proposed Action: | Gain access to video and audio presentations used on the city channel and local television and radio stations to provide information on disaster planning, preparation, mitigation, and recovery to include prevention of wildfires and urban interface of fire dangers, debris management of dead or stress trees, and water conservation including the use of indigenous plants, erosion control, sprinkler systems, rain water capture, and alternative gardening techniques. Also consider developing a landscape ordinance limiting square footage for planting and requiring drainage from paved areas. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo |
| History of Damages: | The city's television channel is not being used to its fullest potential. Professional designed and developed video and audio presentations will be more effective. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------------|
| Primary Hazard Addressed: | Multiple Hazards |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | General funds, grants, permit fees |
| Lead Agency/Department Responsible: | City of San Angelo |
| Target Completion Date: | FY 2007 |

| 2011 Analysis: |
|---|
| Completed, the public information office has taken over this project. |

NEW MITIGATION ACTIONS

| | |
|--------------------------------|------------|
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New Mitigation Actions

At the mitigation workshops for CVCOG, plan participants developed mitigation actions, prioritizing actions based on the STAPLE+E analysis, which includes considering the social, technical, administrative, political, legal, economic and environmental factors necessary for the implementation of each action. A STAPLE+E analysis follows each mitigation action in this section.

As part of the economic evaluation of the STAPLE+E analysis, jurisdictions analyzed each action in terms of the overall costs, measuring whether the potential benefit to be gained from the action outweighed all costs associated with it. As a result of this exercise, priority was assigned to each mitigation action by marking them as High (H), Moderate (M), or Low (L). An action that is ranked as “High” indicates that the action will be implemented as soon as funding is received. A “Moderate” action is one that may not be implemented right away depending on the cost and number of citizens served by the action. Actions ranked as “Low” indicate that they will not be implemented without first seeking grant funding and after “High” and “Moderate” actions have been completed.

CVCOG jurisdictions also developed and prioritized mitigation actions regarding the National Flood Insurance Program (NFIP) for continual compliance. These actions are denoted with “(NFIP)” next to each corresponding action number in the beginning row of each mitigation action.

CVCOG Region

| Concho Valley Council of Governments Region – 1 | |
|--|--|
| Proposed Action: | Post burn ban signs on all major highways. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Counties |
| Lead Agency/Department Responsible: | Counties |
| Implementation Schedule: | 2012 and ongoing |

| COMMENTS: |
|-----------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Concho Valley Council of Governments Region – 2

| | |
|--|--|
| Proposed Action: | Implement a program to secure power lines in rural areas when transmission lines, due to thunderstorm, wind, ice, and other weather events spark a fire which may go unnoticed, resulting in urban and rural fire. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|--------------------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire, Winter Storm, Thunderstorm |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Counties, power companies |
| Lead Agency/Department Responsible: | Counties |
| Implementation Schedule: | 2012 and ongoing |

| |
|------------------|
| COMMENTS: |
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Concho Valley Council of Governments Region – 3

| | |
|--|---|
| Proposed Action: | Implement a public awareness program to promote “GO KIT” to residents throughout the CVCOG region. The kit provides residents information on pre-planning for keeping important papers, medications and other essential items together in the event of disaster and evacuation of their home. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| | |
|--|--------------------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire, Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Counties, donations, local funds |
| Lead Agency/Department Responsible: | CVCOG, counties, cities, individuals |
| Implementation Schedule: | 2012 and ongoing |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |

Concho Valley Council of Governments Region – 4

| | |
|--|---|
| Proposed Action: | Develop local agreements with landowners to cut fences both for access to wildfires, and to free trapped livestock. Include landowners who will be willing to take control and move livestock to safe areas for care and feeding. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | USDA, grants |
| Lead Agency/Department Responsible: | CVCOG, USDA |
| Implementation Schedule: | 2012 and ongoing |

| |
|--|
| COMMENTS: |
| Pre-arranged agreements allow ranchers access to livestock in a wildfire situation to protect investment and reduce economic loss. |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|-------------------------------------|---|-------------------------------------|---|-------------------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input checked="" type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |

Concho Valley Council of Governments Region – 5

| | |
|--|---|
| Proposed Action: | Initiate a program to locate and map all water resources (commercial, flush hydrants, stock ponds, lakes, and waterways) using GPS. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection, Natural Resource Protection |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | CVCOG, Forest Service |
| Implementation Schedule: | 2012 and ongoing |

| |
|---|
| COMMENTS: |
| Pre-located water sources assist with wildfire for refilling helicopters; location of all water resources also aid in protecting them with barriers to keep debris and other materials associated with wildfire from contamination. |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|-------------------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |

Concho Valley Council of Governments Region – 6

| | |
|--|--|
| Proposed Action: | Develop a program for rural residences throughout the CVCOG region to ensure all structures have visible addresses that can be seen from county roads and highways both day and night in order to aid first responders during wildfire events. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | Increase response to minimize structural damage due to fire |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | 9-1-1 Grants |
| Lead Agency/Department Responsible: | 9-1-1 |
| Implementation Schedule: | 2012 and ongoing |

| |
|--|
| COMMENTS: |
| Aid in quicker location of rural residential properties. |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Concho Valley Council of Governments Region – 7

| | |
|--|--|
| Proposed Action: | Designate area(s) and construct multi-purpose community shelter(s) to accommodate area residents during disasters and severe weather events in the CVCOG region. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region – Counties to be determined |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Hail, Winter Storm, Tornado, Thunderstorm, Hurricane |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1.0 - \$1.3 million |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | CVCOG |
| Implementation Schedule: | Within two years of funding |

| |
|------------------|
| COMMENTS: |
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input checked="" type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Concho Valley Council of Governments Region – 8

| | |
|--|--|
| Proposed Action: | Develop a cloud-seeding program as an integral part of overall long-term water management strategy to maximize supply of fresh water and reduce economic agricultural impact of drought and hail damage in the region. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region – Specific counties within the region to be determined |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection, Natural Resource Protection |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Drought, Hail |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$275,000 - \$450,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | CVCOG, along with participating jurisdictions |
| Implementation Schedule: | 2012 and ongoing |

| |
|------------------|
| COMMENTS: |
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input checked="" type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input checked="" type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Concho Valley Council of Governments Region – 9

| | |
|--|--|
| Proposed Action: | Improve wildfire fighting water delivery capabilities by the purchase of one large, mobile fifth-wheel water trailer to be strategically placed around the region. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire, Drought |
| Effect on New/Existing Buildings: | Minimize fire damage to all structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$150,000 - \$175,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | VFD and regular Fire Departments within CVCOG Region |
| Implementation Schedule: | Upon funding |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|-------------------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> |
| 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> |
| 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> |
| 4 | <input checked="" type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

New Mitigation Actions

| Concho Valley Council of Governments Region – 10 (NFIP) | |
|--|--|
| Proposed Action: | Establish public awareness program regarding availability of flood insurance by disseminating brochures in public places, such as City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|-----------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

New Mitigation Actions

| Concho Valley Council of Governments Region – 11 (NFIP) | |
|--|---|
| Proposed Action: | Work with CVCOG Counties to coordinate distribution of flood awareness and insurance materials to participating NFIP communities. |
| BACKGROUND INFORMATION | |
| Site and Location: | CVCOG Region |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|--|
| While drought and extreme heat are priority due to wildfire conditions, flash flooding will be a problem in many areas with spring rains and runoff into creeks and streams. |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Coke County

| Coke County - 1 | |
|--|-------------------------------|
| Proposed Action: | Improve communication system. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| MITIGATION ACTION DETAILS | |
|--|--------------------------|
| Hazard(s) Addressed: | Flood, Wildfire, Tornado |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$75,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Coke County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|--|
| <p>The current communication system is outdated; improvements need to be made so that all thirteen COG communities will be able to communicate during disasters.</p> |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

| | |
|--|--|
| Proposed Action: | Implement a water conservation program to inform the public about the importance of water rationing. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|-------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Drought |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Coke County |
| Implementation Schedule: | 2012 |

| |
|--|
| COMMENTS: |
| <p>With the drought crisis in 2011, it's important to inform our communities about the importance of water rationing. Interested in making pamphlets and having them available at City Hall, schools, businesses, etc.</p> |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

New Mitigation Actions

| Coke County – 3 (NFIP) | |
|--|--|
| Proposed Action: | Develop flood insurance and awareness program; disseminate materials with new permits and place in the library at City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

New Mitigation Actions

| Coke County – 4 (NFIP) | |
|--|---|
| Proposed Action: | Promote Turn Around Don't Drown program throughout county region for low water crossings in unincorporated areas. |
| BACKGROUND INFORMATION | |
| Site and Location: | Coke County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

| | |
|---|--|
| <p>Proposed Action:</p> | <p>Develop Cooperating Technical Partners. The CTP Program is an innovative approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, and State agencies that have the interest and capability to become more active participants in the FEMA Flood Hazard Mapping program, including development and updating Federal Flood Maps for NFIP communities</p> |
| <p>BACKGROUND INFORMATION</p> | |
| <p>Site and Location:</p> | <p>Coke County</p> |
| <p>Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>):</p> | <p>Prevention</p> |

| | |
|---|--|
| <p>MITIGATION ACTION DETAILS</p> | |
| <p>Hazard(s) Addressed:</p> | <p>Flood</p> |
| <p>Effect on New/Existing Buildings:</p> | <p>N/A</p> |
| <p>Priority (High, Moderate, Low):</p> | <p>High</p> |
| <p>Estimated Cost:</p> | <p>To Be Determined</p> |
| <p>Potential Funding Sources:</p> | <p>Grants/Federal and Private Partnerships</p> |
| <p>Lead Agency/Department Responsible:</p> | <p>County Judge</p> |
| <p>Implementation Schedule:</p> | <p>Within 5 years of Approved HMAP Update</p> |

| |
|---|
| <p>COMMENTS:</p> |
| <p>Currently, Coke County is an NFIP participating community. However, flood areas have not been mapped by FEMA.</p> |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Town of Bronte

| Town of Bronte – 1 | |
|--|---|
| Proposed Action: | Expand the number of wells in the Town. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Structural Projects |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------|
| Hazard(s) Addressed: | Drought |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$75,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Coke County, Town of Bronte |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Town of Bronte – 2

| | |
|--|---|
| Proposed Action: | Clear debris from abandoned structures and overgrown areas around town. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|-------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Coke County |
| Implementation Schedule: | 2012 |

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|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

New Mitigation Actions

| Town of Bronte – 3 (NFIP) | |
|--|--|
| Proposed Action: | Develop flood insurance and awareness program; disseminate materials with new permits and place in the library at City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

New Mitigation Actions

| Town of Bronte – 4 (NFIP) | |
|--|---|
| Proposed Action: | Clear debris from area waterways and channels to minimize flooding of streets and nearby structures caused by obstructions and overtopping banks. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Bronte |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Coke County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
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| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

City of Robert Lee

| City of Robert Lee – 1 | |
|--|---|
| Proposed Action: | Evaluate water quality from new sources and investigate expansion of existing water storage facilities. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Natural Resource Protection |

| MITIGATION ACTION DETAILS | |
|--|--------------------|
| Hazard(s) Addressed: | Drought |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Implementation Schedule: | 2012 |

| COMMENTS: |
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| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

New Mitigation Actions

City of Robert Lee – 2

| | |
|--|--|
| Proposed Action: | Distribute pamphlets or have them readily available at City Hall concerning water shortage/conservation. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Natural Resource Protection |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Drought |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$3,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Implementation Schedule: | Contingent on funding |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

| | |
|--|--|
| Proposed Action: | Purchase multi-purpose equipment such as cones and lighted barricades to use during emergencies to block dangerous roads from being used during wildfire and flood events. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|--------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire, Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Implementation Schedule: | Upon funding |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

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|-------------------------------|--|--|
| | Proposed Action: | Purchase a new warning system to adequately cover all areas of the City of Robert Lee. |
| BACKGROUND INFORMATION | | |
| | Site and Location: | City of Robert Lee |
| | Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|---------------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire, Tornado, Thunderstorm |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Implementation Schedule: | Upon funding |

| |
|------------------|
| COMMENTS: |
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

New Mitigation Actions

| City of Robert Lee – 5 (NFIP) | |
|--|--|
| Proposed Action: | Establish public awareness program regarding availability of flood insurance by disseminating brochures in public places, such as City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

New Mitigation Actions

| City of Robert Lee – 6 (NFIP) | |
|--|--|
| Proposed Action: | Purchase multi-purpose equipment, such as cones and lighted barricades to use during emergencies to block access to low water crossings during flood events. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| MITIGATION ACTION DETAILS | |
|--|--------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Implementation Schedule: | Upon funding |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

| | |
|--|---|
| Proposed Action: | Develop an MOU with Coke County allowing the City of Robert Lee to work in conjunction with the County to repair weakened sections of the Mountain Creek Dam as part of an annual remediation program to upgrade and harden the structure |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Robert Lee |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention and Property Protection |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Dam Failure |
| Effect on New/Existing Buildings: | Protect structures and city Water Treatment Plant downstream by hardening dam and minimizing dam breach or failure |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$750,000 |
| Potential Funding Sources: | HMA Grants |
| Lead Agency/Department Responsible: | City of Robert Lee |
| Implementation Schedule: | To be completed one year after receipt of funding. |

| |
|---|
| COMMENTS: |
| Coke County owns and operates Mountain Creek Dam; however, the City of Robert Lee assists in upgrade activities since the City Water Treatment Plant is downstream and would be affected by a dam breach. |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Concho County

| Concho County - 1 | |
|--|--|
| Proposed Action: | Implement a public education program to inform the citizens about safety during extreme heat events. |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|---------------|
| Hazard(s) Addressed: | Extreme Heat |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Concho County |
| Implementation Schedule: | 2012-2014 |

| COMMENTS: |
|---|
| This includes those that work outdoors and the elderly. |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

New Mitigation Actions

| Concho County – 2 (NFIP) | |
|--|--|
| Proposed Action: | Establish education program regarding benefits of flood insurance as it pertains to elevating structures in the SFHA and in accordance with the local Floodplain Ordinance |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education, Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

Concho County – 3

| | |
|--|---|
| Proposed Action: | Construct a safe shelter at a public facility to house residents in the county area during disasters. |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County incorporated and unincorporated areas |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Structural Project |

| | |
|--|---------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Hurricane |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Concho County |
| Implementation Schedule: | 2012 |

| |
|------------------|
| COMMENTS: |
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
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Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

New Mitigation Actions

| Concho County – 4 (NFIP) | |
|--|--|
| Proposed Action: | Purchase NOAA “All-Hazards” radios for notifying and educating school districts, critical facilities, and businesses regarding flooded roadways and low-water crossings in conjunction with ‘Turn Around, Don’t Drown’ |
| BACKGROUND INFORMATION | |
| Site and Location: | Concho County incorporated and unincorporated areas |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|---------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Concho County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

| | |
|---|--|
| <p>Proposed Action:</p> | <p>Develop Cooperating Technical Partners. The CTP Program is an innovative approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, and State agencies that have the interest and capability to become more active participants in the FEMA Flood Hazard Mapping program, including development and updating Federal Flood Maps for NFIP communities</p> |
| <p>BACKGROUND INFORMATION</p> | |
| <p>Site and Location:</p> | <p>Concho County</p> |
| <p>Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>):</p> | <p>Prevention</p> |

| | |
|---|--|
| <p>MITIGATION ACTION DETAILS</p> | |
| <p>Hazard(s) Addressed:</p> | <p>Flood</p> |
| <p>Effect on New/Existing Buildings:</p> | <p>N/A</p> |
| <p>Priority (High, Moderate, Low):</p> | <p>High</p> |
| <p>Estimated Cost:</p> | <p>To Be Determined</p> |
| <p>Potential Funding Sources:</p> | <p>Grants/Federal and Private Partnerships</p> |
| <p>Lead Agency/Department Responsible:</p> | <p>County Judge</p> |
| <p>Implementation Schedule:</p> | <p>Within 5 years of Approved HMAP Update</p> |

| |
|--|
| <p>COMMENTS:</p> |
| <p>Currently, Concho County is an NFIP participating community. However, flood areas have not been mapped by FEMA.</p> |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

City of Eden

| City of Eden – 1 | |
|--|---|
| Proposed Action: | Implement a public awareness program to inform the citizens about their safety during high temperatures and droughts. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eden |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|-----------------------|
| Hazard(s) Addressed: | Drought, Extreme Heat |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Eden |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

| | |
|--|---|
| Proposed Action: | Strengthen or improve emergency notification system to cover the entire city. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eden |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| | |
|--|-----------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood, Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$25,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Eden |
| Implementation Schedule: | 2012 |

| |
|--|
| COMMENTS: |
| There is currently only one siren on one side of the town. In the event of a disaster, the entire town can't hear. |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

| | |
|--|---|
| Proposed Action: | Expand pipeline in conjunction with water storage project to carry and utilize excess water to the Eden Football Field. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eden |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Structural Projects |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Extreme Heat, Drought |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Eden |
| Implementation Schedule: | Upon funding |

| |
|--|
| COMMENTS: |
| The current new water system reclaims water and waters the golf course only. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

New Mitigation Actions

| City of Eden – 4 (NFIP) | |
|--|--|
| Proposed Action: | Establish public awareness program regarding availability of flood insurance by disseminating brochures in public places, such as City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eden |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

New Mitigation Actions

| City of Eden – 5 (NFIP) | |
|--|---|
| Proposed Action: | Establish public awareness program regarding dangers of crossing low water crossings in conjunction with the Turn Around Don't Drown program. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eden |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Town of Paint Rock

| Town of Paint Rock – 1 | |
|--|--|
| Proposed Action: | Develop a Wildfire Protection Plan for the Town. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|--------------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Paint Rock |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Town of Paint Rock – 2

| | |
|--|--|
| Proposed Action: | Distribute materials at City Hall to promote xeriscaping and warn residents of dangers of working outdoors during extreme heat conditions. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Paint Rock |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Extreme Heat, Drought |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Minimal |
| Lead Agency/Department Responsible: | Town of Paint Rock |
| Implementation Schedule: | 2012 |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

Crockett County

| Crockett County - 1 | |
|--|--|
| Proposed Action: | Conduct a public education program on fire risks and wildfire mitigation, with the assistance of the Texas Forest Service. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$8,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Crockett County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Crockett County – 2

| | |
|--|---|
| Proposed Action: | Develop a Wildfire Recovery Plan, including soil erosion control and vegetative recovery. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Property Protection |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Crockett County |
| Implementation Schedule: | Upon funding |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

| | |
|--|--|
| Crockett County – 3 | |
| Proposed Action: | Investigate construction of safe room or shelter at public facility or school to house residents in the County during times of disaster. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Structural Project |

| | |
|--|--------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Tornado, Hurricane |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$8,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Crockett County |
| Implementation Schedule: | 2012 |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

Crockett County – 4

| | |
|--|---|
| Proposed Action: | Improve and harden spillways and concrete dams. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County – Sides #2, 7, Johnson Draw WCD |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| | |
|--|--------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Dam Failure |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$120,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | County Judge |
| Implementation Schedule: | 2012 |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

New Mitigation Actions

| Crockett County – 5 (NFIP) | |
|--|--|
| Proposed Action: | Establish public awareness program regarding availability of flood insurance by disseminating brochures in public places, such as City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

| Crockett County – 6 | |
|--|--|
| Proposed Action: | Educate residents downstream of Johnson Draw about evacuation routes and timing in the event of dam failure. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County – Sides #2, 7, Johnson Draw WCD |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|--------------|
| Hazard(s) Addressed: | Dam Failure |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | County Judge |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

New Mitigation Actions

| Crockett County – 7 (NFIP) | |
|--|--|
| Proposed Action: | Develop flood awareness program to promote Turn Around Don't Drown, particularly in areas where there are dangerous low water crossings. |
| BACKGROUND INFORMATION | |
| Site and Location: | Crockett County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|--------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | County Judge |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

Irion County

| Irion County - 1 | |
|--|---|
| Proposed Action: | Implement a Wildfire Protection Plan for the public to learn how to prevent a wildfire. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|--------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Irion County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

| | |
|--|--|
| Proposed Action: | To use the newspapers and media to post information about ongoing burn bans in the area. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| | |
|--|--------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Irion County |
| Implementation Schedule: | 2012 |

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| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

New Mitigation Actions

| Irion County – 3 (NFIP) | |
|--|--|
| Proposed Action: | Establish education program regarding benefits of flood insurance as it pertains to elevating structures in the SFHA and in accordance with the local Floodplain Ordinance |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Irion County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

New Mitigation Actions

| Irion County – 4 (NFIP) | |
|--|--|
| Proposed Action: | Organize planning committee to review language of flood ordinance to ensure minimum NFIP compliance standards and develop higher regulatory standards for permitting in flood prone areas of the county. |
| BACKGROUND INFORMATION | |
| Site and Location: | Irion County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Irion County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

| | |
|---|--|
| <p>Proposed Action:</p> | <p>Develop Cooperating Technical Partners. The CTP Program is an innovative approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, and State agencies that have the interest and capability to become more active participants in the FEMA Flood Hazard Mapping program, including development and updating Federal Flood Maps for NFIP communities</p> |
| <p>BACKGROUND INFORMATION</p> | |
| <p>Site and Location:</p> | <p>Irion County</p> |
| <p>Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>):</p> | <p>Prevention</p> |

| | |
|---|--|
| <p>MITIGATION ACTION DETAILS</p> | |
| <p>Hazard(s) Addressed:</p> | <p>Flood</p> |
| <p>Effect on New/Existing Buildings:</p> | <p>N/A</p> |
| <p>Priority (High, Moderate, Low):</p> | <p>High</p> |
| <p>Estimated Cost:</p> | <p>To Be Determined</p> |
| <p>Potential Funding Sources:</p> | <p>Grants/Federal and Private Partnerships</p> |
| <p>Lead Agency/Department Responsible:</p> | <p>County Judge</p> |
| <p>Implementation Schedule:</p> | <p>Within 5 years of Approved HMAP Update</p> |

| |
|---|
| <p>COMMENTS:</p> |
| <p>Currently, Irion County is an NFIP participating community. However, flood areas have not been mapped by FEMA.</p> |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

City of Mertzon

| City of Mertzon – 1 | |
|--|--|
| Proposed Action: | Implement a public education program to inform members of the community on water conservation. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Mertzon |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Drought |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$9,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Mertzon |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

New Mitigation Actions

| City of Mertzson – 2 (NFIP) | |
|--|--|
| Proposed Action: | Purchase NOAA “All-Hazards” radios for notifying and educating school districts, critical facilities, and businesses regarding flooded roadways and low-water crossings in conjunction with ‘Turn Around, Don’t Drown’ |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Mertzson |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

New Mitigation Actions

| City of Mertzson – 3 (NFIP) | |
|--|--|
| Proposed Action: | Examine local flood ordinance to ensure minimum NFIP standards are included for program compliance and to consider possible higher regulatory standards. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Mertzson |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Kimble County

| Kimble County – 1 | |
|--|---|
| Proposed Action: | Clear abandoned areas to prevent wildfires. |
| BACKGROUND INFORMATION | |
| Site and Location: | Kimble County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|---------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Kimble County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|-----------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

New Mitigation Actions

| Kimble County – 2 (NFIP) | |
|--|---|
| Proposed Action: | Review and update permitting and inspections requirements in an effort to minimize construction of non-compliant structures in SFHAs. |
| BACKGROUND INFORMATION | |
| Site and Location: | Kimble County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Kimble County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

New Mitigation Actions

| Kimble County – 3 (NFIP) | |
|--|--|
| Proposed Action: | Review county floodplain ordinance and procedures to ensure minimum NFIP standards are being addressed for permitting development and enforcement. |
| BACKGROUND INFORMATION | |
| Site and Location: | Kimble County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Kimble County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

| Kimble County – 4 | |
|--|--|
| Proposed Action: | Implement program to remove downed trees and limbs from power lines following severe thunderstorm events |
| BACKGROUND INFORMATION | |
| Site and Location: | Kimble County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| MITIGATION ACTION DETAILS | |
|--|------------------------|
| Hazard(s) Addressed: | Thunderstorm |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | County Road and Bridge |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

City of Junction

| City of Junction – 1 | |
|--|---|
| Proposed Action: | Develop and implement projects to prevent erosion on the Llano River. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction – Llano River |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Natural Resource Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood, Drought |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$200,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Junction |
| Implementation Schedule: | Upon funding |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

New Mitigation Actions

| City of Junction – 2 (NFIP) | |
|--|--|
| Proposed Action: | Develop flood insurance and awareness program; disseminate materials with new permits and place in the library at City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

New Mitigation Actions

| City of Junction – 3 (NFIP) | |
|--|---|
| Proposed Action: | Purchase signage for low water crossings to warn drivers of the dangers of driving across flooded roadways. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Junction |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

McCulloch County

| McCulloch County - 1 (NFIP) | |
|--|---|
| Proposed Action: | Map area roads in unincorporated areas prone to flooding to determine signage needed for promoting the Turn Around Don't Drown program. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | McCulloch County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

McCulloch County – 2

| | |
|--|--|
| Proposed Action: | Provide information on hazardous material incidents for the citizens of the County by providing pamphlets and having them available around the County. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| | |
|--|-----------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Hazardous Material Incident |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | McCulloch County |
| Implementation Schedule: | 2012 |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

McCulloch County – 3

| | |
|--|---|
| Proposed Action: | Upgrade current communication system to a digitalized system for better coverage around the County. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood, Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | McCulloch County |
| Implementation Schedule: | 2012 |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

| McCulloch County – 4 | |
|--|---|
| Proposed Action: | Expand current communication receptors to include two more tower sites for better coverage within the County divisions. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|--------------------------|
| Hazard(s) Addressed: | Flood, Wildfire, Drought |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | McCulloch County |
| Implementation Schedule: | Upon funding |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

New Mitigation Actions

| McCulloch County – 5 (NFIP) | |
|--|--|
| Proposed Action: | Establish public awareness program regarding availability of flood insurance by disseminating brochures in public places, such as City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

McCulloch County – 6

| | |
|--|---|
| Proposed Action: | Develop Cooperating Technical Partners. The CTP Program is an innovative approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, and State agencies that have the interest and capability to become more active participants in the FEMA Flood Hazard Mapping program, including development and updating Federal Flood Maps for NFIP communities |
| BACKGROUND INFORMATION | |
| Site and Location: | McCulloch County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To Be Determined |
| Potential Funding Sources: | Grants/Federal and Private Partnerships |
| Lead Agency/Department Responsible: | County Judge |
| Implementation Schedule: | Within 5 years of Approved HMAP Update |

| |
|--|
| COMMENTS: |
| Currently, McCulloch County is an NFIP participating community. However, flood areas have not been mapped by FEMA. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

Town of Melvin

| Town of Melvin – 1 | |
|--|--|
| Proposed Action: | Purchase a new electrical system for the town offices. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town of Melvin |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Wildfire, Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Town of Melvin |
| Implementation Schedule: | Upon funding |

| COMMENTS: |
|--|
| In the event of disaster existing system inadequate. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

| | |
|---|---|
| <p>Proposed Action:</p> | <p>Implement a public education awareness program to inform citizens about drought, water conservation, and emergency routes.</p> |
| <p>BACKGROUND INFORMATION</p> | |
| <p>Site and Location:</p> | <p>Town of Melvin</p> |
| <p>Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>):</p> | <p>Public Education & Awareness</p> |

| | |
|---|---------------------------------|
| <p>MITIGATION ACTION DETAILS</p> | |
| <p>Hazard(s) Addressed:</p> | <p>Drought, Wildfire, Flood</p> |
| <p>Effect on New/Existing Buildings:</p> | <p>N/A</p> |
| <p>Priority (High, Moderate, Low):</p> | <p>High</p> |
| <p>Estimated Cost:</p> | <p>\$50,000</p> |
| <p>Potential Funding Sources:</p> | <p>Grants</p> |
| <p>Lead Agency/Department Responsible:</p> | <p>Town of Melvin</p> |
| <p>Implementation Schedule:</p> | <p>Upon funding</p> |

| |
|-------------------------|
| <p>COMMENTS:</p> |
| <p></p> |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

Menard County

| Menard County - 1 (NFIP) | |
|--|--|
| Proposed Action: | Purchase and install flood early warning system. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|---------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$25,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Menard County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|---|
| Partially completed project, but seeking funding to continue and complete it. |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

Menard County – 2

| | |
|--|--|
| Proposed Action: | Purchase and install early warning system and response plan for thunderstorms, hail and tornadoes. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection, Public Education & Awareness |

| | |
|--|-----------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Thunderstorm, Hail, Tornado |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Menard County |
| Implementation Schedule: | 2012 |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

New Mitigation Actions

| Menard County – 3 (NFIP) | |
|--|--|
| Proposed Action: | Periodically review language of flood ordinance to ensure minimum NFIP compliance standards and to consider higher regulatory standards for permitting in flood prone areas of the county. |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Menard County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

Menard County – 4

| | |
|--|---|
| Proposed Action: | Develop Cooperating Technical Partners. The CTP Program is an innovative approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, and State agencies that have the interest and capability to become more active participants in the FEMA Flood Hazard Mapping program, including development and updating Federal Flood Maps for NFIP communities |
| BACKGROUND INFORMATION | |
| Site and Location: | Menard County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To Be Determined |
| Potential Funding Sources: | Grants/Federal and Private Partnerships |
| Lead Agency/Department Responsible: | County Judge |
| Implementation Schedule: | Within 5 years of Approved HMAP Update |

| |
|---|
| COMMENTS: |
| Currently, Menard County is an NFIP participating community. However, flood areas have not been mapped by FEMA. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

City of Menard

| City of Menard – 1 (NFIP) | |
|--|--|
| Proposed Action: | Purchase and install flood early warning system. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|---------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$25,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Menard County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|---|
| Partially completed project, but seeking funding to continue and complete it. |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

| | |
|--|--|
| Proposed Action: | Purchase siren warning system and implement response plan for thunderstorms, hail and tornadoes during disaster. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection, Public Education & Awareness |

| | |
|--|-----------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Thunderstorm, Hail, Tornado |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Menard County |
| Implementation Schedule: | 2012 |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

New Mitigation Actions

| City of Menard – 3 (NFIP) | |
|--|--|
| Proposed Action: | Purchase NOAA “All-Hazards” radios for notifying and educating school districts, critical facilities, and businesses regarding flooded roadways and low-water crossings in conjunction with ‘Turn Around, Don’t Drown’ |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Menard |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City of Menard |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Reagan County

| Reagan County - 1 | |
|--|--|
| Proposed Action: | Expand communication system by improving city trucks to include radio systems to contact local regions during emergencies and disasters. |
| BACKGROUND INFORMATION | |
| Site and Location: | Reagan County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Wildfire, Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$75,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Reagan County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

New Mitigation Actions

| Reagan County – 2 (NFIP) | |
|--|--|
| Proposed Action: | Develop flood education and awareness program; disseminate materials with new permits and place in the library at City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | Reagan County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

New Mitigation Actions

| Reagan County – 3 (NFIP) | |
|--|---|
| Proposed Action: | Implement flood awareness program to include Turn Around Don't Drown. |
| BACKGROUND INFORMATION | |
| Site and Location: | Reagan County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

Reagan County – 4

| | |
|---|--|
| <p>Proposed Action:</p> | <p>Develop Cooperating Technical Partners. The CTP Program is an innovative approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, and State agencies that have the interest and capability to become more active participants in the FEMA Flood Hazard Mapping program, including development and updating Federal Flood Maps for NFIP communities</p> |
| <p>BACKGROUND INFORMATION</p> | |
| <p>Site and Location:</p> | <p>Reagan County</p> |
| <p>Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>):</p> | <p>Prevention</p> |

| | |
|---|--|
| <p>MITIGATION ACTION DETAILS</p> | |
| <p>Hazard(s) Addressed:</p> | <p>Flood</p> |
| <p>Effect on New/Existing Buildings:</p> | <p>N/A</p> |
| <p>Priority (High, Moderate, Low):</p> | <p>High</p> |
| <p>Estimated Cost:</p> | <p>To Be Determined</p> |
| <p>Potential Funding Sources:</p> | <p>Grants/Federal and Private Partnerships</p> |
| <p>Lead Agency/Department Responsible:</p> | <p>County Judge</p> |
| <p>Implementation Schedule:</p> | <p>Within 5 years of Approved HMAP Update</p> |

| |
|--|
| <p>COMMENTS:</p> |
| <p>Currently, Reagan County is an NFIP participating community. However, flood areas have not been mapped by FEMA.</p> |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

City of Big Lake

| City of Big Lake – 1 (NFIP) | |
|--|--|
| Proposed Action: | Implement an education program to inform and notify residents of evacuation routes and dangers of driving into flooded roads and low-water crossings |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Big Lake |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | Protects the homes/offices of people in the community |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Big Lake |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|--|
| To notify public by purchasing newspaper ads and to send out letters to homeowners who may be in danger. |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

| | |
|--|------------------------------------|
| Proposed Action: | Clear abandoned areas from debris. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Big Lake |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Big Lake |
| Implementation Schedule: | 2012 |

| |
|---|
| COMMENTS: |
| With the wildfire disasters occurring in 2011, it's important to clear out areas that could trigger a devastating wildfire. |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

New Mitigation Actions

| City of Big Lake – 3 (NFIP) | |
|--|---|
| Proposed Action: | Purchase signage for low water crossings to warn drivers of the dangers of driving across flooded roadways. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Big Lake |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City of Big Lake |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |

New Mitigation Actions

City of Big Lake – 4

| | |
|--|---|
| Proposed Action: | Develop and implement system for ensuring continued operation of utility infrastructure in easements and right of ways remain free of obstruction from excessive debris and brush |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Big Lake |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Thunderstorm |
| Effect on New/Existing Buildings: | Reduce the impact of windstorms and thunderstorms on new and existing buildings by ensuring limbs and trees have been removed |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City of Big Lake |
| Implementation Schedule: | 2012 |

| |
|------------------|
| COMMENTS: |
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

| | |
|--|---|
| Proposed Action: | Develop Cooperating Technical Partners. The CTP Program is an innovative approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, and State agencies that have the interest and capability to become more active participants in the FEMA Flood Hazard Mapping program, including development and updating Federal Flood Maps for NFIP communities |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Big Lake |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To Be Determined |
| Potential Funding Sources: | Grants/Federal and Private Partnerships |
| Lead Agency/Department Responsible: | County Judge |
| Implementation Schedule: | Within 5 years of Approved HMAP Update |

| |
|---|
| COMMENTS: |
| The City of Big Lake, and incorporated jurisdiction located in Reagan County is an NFIP participating community. However, flood areas have not been mapped by FEMA. |

Schleicher County

| Schleicher County – 1 (NFIP) | |
|--|---|
| Proposed Action: | Purchase NOAA “All-Hazards” radios for early warning and post-event information and place in area schools, businesses, and critical care facilities utilizing public and private partnership funding. |
| BACKGROUND INFORMATION | |
| Site and Location: | Schleicher County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|-------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Schleicher County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

New Mitigation Actions

| | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| ADDITIONAL CONSIDERATIONS | | | | | |
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

| Schleicher County – 2 | |
|--|--|
| Proposed Action: | Establish a county-wide Wildfire Protection Plan for the public. |
| BACKGROUND INFORMATION | |
| Site and Location: | Schleicher County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|-------------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Schleicher County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

New Mitigation Actions

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

| Schleicher County – 3 (NFIP) | |
|--|--|
| Proposed Action: | Establish education program regarding benefits of flood insurance as it pertains to elevating structures in the SFHA and in accordance with the local Floodplain Ordinance |
| BACKGROUND INFORMATION | |
| Site and Location: | Schleicher County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|-------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Schleicher County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

New Mitigation Actions

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |

| Schleicher County – 4 | |
|--|--|
| Proposed Action: | Implement inspections and clearing of utility easement areas following severe weather events to ensure areas remain clear of obstruction |
| BACKGROUND INFORMATION | |
| Site and Location: | Schleicher County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Thunderstorm, Tornado |
| Effect on New/Existing Buildings: | Minimize damage and ensure utility and infrastructure is free of obstruction following thunderstorm, tornado and other weather disasters |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | County Road and Bridge |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

New Mitigation Actions

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |

Schleicher County – 5

| | |
|--|---|
| Proposed Action: | Develop Cooperating Technical Partners. The CTP Program is an innovative approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, and State agencies that have the interest and capability to become more active participants in the FEMA Flood Hazard Mapping program, including development and updating Federal Flood Maps for NFIP communities |
| BACKGROUND INFORMATION | |
| Site and Location: | Schleicher County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To Be Determined |
| Potential Funding Sources: | Grants/Federal and Private Partnerships |
| Lead Agency/Department Responsible: | County Judge |
| Implementation Schedule: | Within 5 years of Approved HMAP Update |

| |
|---|
| COMMENTS: |
| Currently, Schleicher County is an NFIP participating community. However, flood areas have not been mapped by FEMA. |

New Mitigation Actions

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

City of Eldorado

| City of Eldorado – 1 | |
|--|--|
| Proposed Action: | Develop a Wildfire Protection Plan for the public. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eldorado |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Eldorado |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

New Mitigation Actions

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

| City of Eldorado – 2 (NFIP) | |
|--|---|
| Proposed Action: | Promote flood insurance awareness through distribution of NFIP materials in local library, City Hall, and other civic venues and events |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eldorado |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

New Mitigation Actions

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |

| City of Eldorado – 3 (NFIP) | |
|--|---|
| Proposed Action: | Promote flood education and dangers of driving into flooded roadways through Turn Around Don't Drown program. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eldorado |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

New Mitigation Actions

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|-------------------------------------|----------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> | |

City of Eldorado – 4

| | |
|--|---|
| Proposed Action: | Construct a shelter in existing public school to facilitate and house students and residents in the event of tornado and other severe weather events. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Eldorado |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Structural Project |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Tornado |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Eldorado |
| Implementation Schedule: | 2013-2014 |

| |
|---|
| COMMENTS: |
| Currently no shelter is in place within the area to house residents in the event of disaster. |

Sterling County

| Sterling County - 1 | |
|--|--|
| Proposed Action: | Coordinate a Wildfire Hazard Plan with other agencies/jurisdictions. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Property Protection |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Sterling County |
| Implementation Schedule: | Ongoing |

| COMMENTS: |
|-----------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

New Mitigation Actions

| Sterling County – 2 (NFIP) | |
|--|--|
| Proposed Action: | Harden and repair storm water system and to adequately convey flood waters and minimize flooding of roadways and low lying structures. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | General revenues |
| Lead Agency/Department Responsible: | City of Sterling |
| Implementation Schedule: | As needed |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
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| | |
|---|--|
| <p>Proposed Action:</p> | <p>Conduct public education program on fire risk and wildfire mitigation, with the assistance of the Texas Forest Service.</p> |
| <p>BACKGROUND INFORMATION</p> | |
| <p>Site and Location:</p> | <p>Sterling County</p> |
| <p>Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>):</p> | <p>Public Education & Awareness</p> |

| | |
|---|------------------------|
| <p>MITIGATION ACTION DETAILS</p> | |
| <p>Hazard(s) Addressed:</p> | <p>Wildfire</p> |
| <p>Effect on New/Existing Buildings:</p> | <p>N/A</p> |
| <p>Priority (High, Moderate, Low):</p> | <p>High</p> |
| <p>Estimated Cost:</p> | <p>\$0</p> |
| <p>Potential Funding Sources:</p> | <p>N/A</p> |
| <p>Lead Agency/Department Responsible:</p> | <p>Sterling County</p> |
| <p>Implementation Schedule:</p> | <p>As needed</p> |

| |
|-------------------------|
| <p>COMMENTS:</p> |
| <p> </p> |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

| | |
|--|--------------------------------------|
| Proposed Action: | Educate residents about xeriscaping. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| | |
|--|-------------------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Drought, Extreme Heat |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Sterling County - Extensive Service |
| Implementation Schedule: | As needed |

| |
|------------------|
| COMMENTS: |
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

| | |
|--|--|
| Proposed Action: | Develop and maintain a basic emergency plan that complies with state planning standards. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness, Prevention |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Hazardous Material Incident, Pipeline Failure |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Sterling County |
| Implementation Schedule: | Ongoing |

| |
|------------------|
| COMMENTS: |
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

| | |
|--|--|
| Proposed Action: | Prepare and advertise the local emergency evacuation plan, such as escape routes, in coordination with the Department of Transportation. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Tornado, Thunderstorm |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$0 |
| Potential Funding Sources: | N/A |
| Lead Agency/Department Responsible: | Sterling County |
| Implementation Schedule: | Ongoing |

| |
|------------------|
| COMMENTS: |
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

New Mitigation Actions

| Sterling County – 7 (NFIP) | |
|--|--|
| Proposed Action: | Promote public education of the NFIP Program by distributing flood insurance brochures at City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Sterling County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
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| | |
|--|---|
| Proposed Action: | Develop Cooperating Technical Partners. The CTP Program is an innovative approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, and State agencies that have the interest and capability to become more active participants in the FEMA Flood Hazard Mapping program, including development and updating Federal Flood Maps for NFIP communities |
| BACKGROUND INFORMATION | |
| Site and Location: | Sterling County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To Be Determined |
| Potential Funding Sources: | Grants/Federal and Private Partnerships |
| Lead Agency/Department Responsible: | County Judge |
| Implementation Schedule: | Within 5 years of Approved HMAP Update |

| |
|---|
| COMMENTS: |
| Currently, Sterling County is an NFIP participating community. However, flood areas have not been mapped by FEMA. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

City of Sterling City

| City of Sterling City – 1 | |
|--|---|
| Proposed Action: | Improve and harden wastewater facility. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|-----------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$250,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sterling City |
| Implementation Schedule: | Upon funding |

| COMMENTS: |
|-----------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

City of Sterling City – 2

| | |
|--|--|
| Proposed Action: | Improve communications by installing radio systems in the city trucks. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire, Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$25,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sterling City |
| Implementation Schedule: | Upon funding |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

New Mitigation Actions

| City of Sterling City – 3 (NFIP) | |
|--|---|
| Proposed Action: | Implement public education program regarding the local NFIP Program as it pertains to permitting requirements in an effort to minimize construction of non-compliant structures in SFHAs. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

New Mitigation Actions

| City of Sterling City – 4 (NFIP) | |
|--|---|
| Proposed Action: | Establish public awareness program regarding dangers of driving across low water crossings through Turn Around Don't Drown. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sterling City |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Sutton County

| Sutton County - 1 | |
|--|--|
| Proposed Action: | Implement and conduct public education programs to inform residents of dangers of working outside in extreme heat and drought conditions |
| BACKGROUND INFORMATION | |
| Site and Location: | Sutton County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------------|
| Hazard(s) Addressed: | Extreme Heat/Drought |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$4,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Sutton County |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|---|
| Purchasing newspaper ads and TV ads to inform the public. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

New Mitigation Actions

| Sutton County – 2 (NFIP) | |
|--|--|
| Proposed Action: | Purchase NOAA “All-Hazards” radios for notifying and educating school districts, critical facilities, and businesses regarding flooded roadways and low-water crossings in conjunction with ‘Turn Around, Don’t Drown’ |
| BACKGROUND INFORMATION | |
| Site and Location: | Sutton County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

New Mitigation Actions

| Sutton County – 3 (NFIP) | |
|--|---|
| Proposed Action: | Purchase and install signage for low water crossings located in unincorporated areas that pose hazardous driving in flooded conditions. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sutton County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

Sutton County – 4

| | |
|--|---|
| Proposed Action: | Install quick-connect emergency generator hook-ups for A/C backup for critical facilities, during electrical outages as a result of extreme heat conditions |
| BACKGROUND INFORMATION | |
| Site and Location: | Rural and unincorporated areas of Sutton County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|---------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Extreme Heat |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Sutton County |
| Implementation Schedule: | 2012 |

| |
|--|
| COMMENTS: |
| As part of this action the county would also purchase newspaper ads and TV ads to inform the public. |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

City of Sonora

| City of Sonora – 1 | |
|--|--|
| Proposed Action: | To develop and organize a volunteer firefighting team. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sonora |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$8,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sonora |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

| | |
|---|---|
| <p>Proposed Action:</p> | <p>Implement a Wildfire Protection Plan for the public.</p> |
| <p>BACKGROUND INFORMATION</p> | |
| <p>Site and Location:</p> | <p>City of Sonora</p> |
| <p>Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>):</p> | <p>Public Education & Awareness</p> |

| | |
|---|-----------------------|
| <p>MITIGATION ACTION DETAILS</p> | |
| <p>Hazard(s) Addressed:</p> | <p>Wildfire</p> |
| <p>Effect on New/Existing Buildings:</p> | <p>N/A</p> |
| <p>Priority (High, Moderate, Low):</p> | <p>High</p> |
| <p>Estimated Cost:</p> | <p>\$5,000</p> |
| <p>Potential Funding Sources:</p> | <p>Grants</p> |
| <p>Lead Agency/Department Responsible:</p> | <p>City of Sonora</p> |
| <p>Implementation Schedule:</p> | <p>2012</p> |

| |
|-------------------------|
| <p>COMMENTS:</p> |
| <p></p> |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

New Mitigation Actions

| City of Sonora – 3 (NFIP) | |
|--|--|
| Proposed Action: | Implement an education program to inform and notify residents of evacuation routes and dangers of driving into flooded roads and low-water crossings |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sonora |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

New Mitigation Actions

| City of Sonora – 4 (NFIP) | |
|--|--|
| Proposed Action: | Promote flood insurance awareness through distribution of NFIP materials in local library, City Hall, and other civic venues |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sonora |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

| | |
|--|--|
| Proposed Action: | Retrofit traffic lights to secure traffic controls from high wind damage |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Sonora |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|-----------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Thunderstorm, Tornado |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$25,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Sonora |
| Implementation Schedule: | 2012 |

| |
|------------------|
| COMMENTS: |
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|

Tom Green County

| Tom Green County – 1 | |
|--|--|
| Proposed Action: | Purchase two repeaters for the fire communications system used by the VFDs, as well as sic mobile radios per volunteer department. |
| BACKGROUND INFORMATION | |
| Site and Location: | Tom Green County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | VFD |
| Implementation Schedule: | 2013-2014 |

| COMMENTS: |
|-----------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | |
| Socially Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Technically Feasible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Administratively Possible: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Politically Acceptable: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Legal: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Economically Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |
| Environmentally Sound: | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | | |

Tom Green County – 2

| | |
|--|--|
| Proposed Action: | Provide portable drop tanks with a minimum 3,000 gallon capacity to each volunteer fire department to enhance their water resource capacities. |
| BACKGROUND INFORMATION | |
| Site and Location: | Tom Green County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Tom Green County |
| Implementation Schedule: | Upon funding |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

New Mitigation Actions

| Tom Green County – 3 (NFIP) | |
|--|--|
| Proposed Action: | Develop flood insurance and awareness program; disseminate materials with new permits and place in the library at City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | Tom Green County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

New Mitigation Actions

| Tom Green County – 4 (NFIP) | |
|--|--|
| Proposed Action: | Conduct TADD outreach to educate county residents about driving through flooded low water crossings during flood events. |
| BACKGROUND INFORMATION | |
| Site and Location: | Tom Green County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention, Public Education & Awareness |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Local funding |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | City staff |
| Implementation Schedule: | 2013 |

| COMMENTS: |
|------------------|
| |

ADDITIONAL CONSIDERATIONS

The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Socially Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Technically Feasible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Administratively Possible:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Politically Acceptable:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Legal:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Economically Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Environmentally Sound:

| | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|-------------------------------------|

Tom Green County – 5

| | |
|--|---|
| Proposed Action: | Educate residents in unincorporated areas of the county about defensible space and reduction of wildland urban interface fuels. |
| BACKGROUND INFORMATION | |
| Site and Location: | Tom Green County |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection, Public Education & Awareness |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire |
| Effect on New/Existing Buildings: | This action could help protect existing residences from wildfire through mitigation techniques or result in new construction in areas with low wildfire fuels. |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,500 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | County Commissioners Court |
| Implementation Schedule: | 2014 |

| |
|------------------|
| COMMENTS: |
| |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 5 <input checked="" type="checkbox"/> |

City of San Angelo

| City of San Angelo – 1 (NFIP) | |
|--|---|
| Proposed Action: | Raise Spaulding St. at East Angelo Draw by 5.4 feet and install (4) 9 x 8’ box culverts under Spaulding; raise Bell St. at East Angelo Draw by 2.4 feet and install (4) 9 x8’ culverts. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo – East Angelo Draw at its intersection with Spaulding St. and Bell St. |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,087,800 |
| Potential Funding Sources: | Hazard Mitigation Grants, Capital Improvement Projects |
| Lead Agency/Department Responsible: | City of San Angelo |
| Implementation Schedule: | Upon funding |

| COMMENTS: |
|--|
| This is the number one project identified by the master drainage plan – COSA 2000. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

City of San Angelo – 2

| | |
|--|--|
| Proposed Action: | Construct additional 8 x 8 box culverts downstream of Bryant Blvd., continuing along Avenue P downstream to Chadbourne St. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo – West Avenue P at Bryant Blvd. |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| | |
|--|--------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,489,500 |
| Potential Funding Sources: | HMGP, CIP |
| Lead Agency/Department Responsible: | City of San Angelo |
| Implementation Schedule: | Upon funding |

| |
|---|
| COMMENTS: |
| This is number 2 on the projects identified by the 2000 Master Drainage Plan. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

New Mitigation Actions

City of San Angelo – 3

| | |
|--|---|
| Proposed Action: | Widen channel from just upstream of Loop 306 to just downstream of Southwest Blvd. Install a 300 flood bridge with high chord of 1888msl. Install storm drain line in Southwest Blvd. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo – Southwest Blvd. and South Fork, Red Arroyo |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| | |
|--|--------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3,318,400 |
| Potential Funding Sources: | HMGP, CIP |
| Lead Agency/Department Responsible: | City of San Angelo |
| Implementation Schedule: | Upon funding |

| |
|---|
| COMMENTS: |
| This is ranked number 7 of the 2000 Master Drainage Plan. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

New Mitigation Actions

| City of San Angelo – 4 | |
|--|---|
| Proposed Action: | Acquisition of property and grading to prevent flooding. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo – 400 Block of E. 14 th St. |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | Demo existing building, convert to park area |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$1,200,000 |
| Potential Funding Sources: | HMGP, CIP |
| Lead Agency/Department Responsible: | City of San Angelo |
| Implementation Schedule: | Upon funding |

| COMMENTS: |
|---|
| This area floods homes during heavy rainfall- also requested by Mayor Alvinnew. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

| | |
|--|--|
| Proposed Action: | Utilize grant funding to purchase NOAA “All-Hazards” radios for early warning and post-event information and place in area businesses and critical facilities. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Thunderstorm, Tornado |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$40 for 100 = \$4,000 |
| Potential Funding Sources: | Grant/ in-kind funding |
| Lead Agency/Department Responsible: | Emergency Management |
| Implementation Schedule: | Upon funding |

| |
|------------------|
| COMMENTS: |
| 100 Radios. |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

New Mitigation Actions

City of San Angelo – 6

| | |
|--|---|
| Proposed Action: | Develop a SAFE Room program, implementing minimum of (10) homes within program, written San Angelo. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Prevention |

| | |
|--|------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Thunderstorm, Tornado |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Approximately \$60,000 |
| Potential Funding Sources: | Grant/ in-kind funding |
| Lead Agency/Department Responsible: | Emergency Management |
| Implementation Schedule: | Upon funding |

| |
|-------------------------|
| COMMENTS: |
| 10 safe rooms per year. |

| ADDITIONAL CONSIDERATIONS | | | | |
|---|--------------------------|---|--------------------------|---------------------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | |
| Socially Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Technically Feasible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Administratively Possible: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Politically Acceptable: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Legal: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Economically Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |
| Environmentally Sound: | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 <input checked="" type="checkbox"/> |
| 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> | |

New Mitigation Actions

| City of San Angelo – 7 (NFIP) | |
|--|--|
| Proposed Action: | Establish public awareness program regarding availability of flood insurance by disseminating brochures in public places, such as City Hall. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of San Angelo |
| Type of Action (<i>Prevention, Property Protection, Public Education & Awareness, Natural Resource Protection, or Structural Projects</i>): | Property Protection |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Local revenues |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2012 |

| COMMENTS: |
|------------------|
| |

| ADDITIONAL CONSIDERATIONS | | | | | | | | | |
|---|--------------------------|---|--------------------------|---|-------------------------------------|---|--------------------------|---|--------------------------|
| The following STAPLEE criteria were evaluated on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies) | | | | | | | | | |
| Socially Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Technically Feasible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Administratively Possible: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Politically Acceptable: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Legal: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Economically Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |
| Environmentally Sound: | | | | | | | | | |
| 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input type="checkbox"/> |

PLAN MAINTENANCE

| | |
|---|---|
| PLAN MAINTENANCE PROCEDURES | 1 |
| MONITORING AND EVALUATION | 2 |
| PLAN MONITORING | 2 |
| PLAN EVALUATION | 2 |
| UPDATING | 2 |
| PLAN AMENDMENTS | 2 |
| FIVE (5) YEAR REVIEW | 3 |
| INCORPORATION | 3 |
| INCORPORATION OF THE 2005 PLAN | 4 |
| INCORPORATION OF THE PLAN UPDATE | 4 |
| CONTINUED PUBLIC INVOLVEMENT | 6 |
| PUBLIC INVOLVEMENT OVER THE PAST FIVE YEARS | 6 |
| PUBLIC INVOLVEMENT GOING FORWARD | 7 |

Plan Maintenance Procedures

The following is an explanation of how the participating jurisdictions and the CVCOG will implement the Plan Update, and continue to evaluate and enhance it over time. In order to ensure that the Plan remains current and relevant, the following plan maintenance procedures will be addressed:

- Monitoring and Evaluating the Plan
- Updating the Plan
- Incorporating the Plan into other Planning Mechanisms
- Continued Public Involvement

Monitoring and Evaluation

Periodic revisions of the Plan Update are required to ensure that the goals, objectives, and mitigation action plans are kept current. In addition, revisions may be necessary to ensure that the Plan Update remains in full compliance with state and federal standards.

Plan Monitoring

Monitoring the Plan Update will be the responsibility of all of the jurisdictions, CVCOG and additional planning team members. Each community has designated one person or department responsible for the development and implementation of the Plan. This team member's title is listed in Appendix B. The person that holds the title listed in Appendix B will be responsible for monitoring the Plan. The Plan will be monitored by each jurisdiction annually. The department responsible will review mitigation actions submitted and develop a brief report if any changes are needed, such as recommending an action for funding.

Plan Evaluation

As part of the evaluation process, team members from each jurisdiction will meet bi-annually. The first meeting will be held among those involved in the planning process for the specific jurisdiction. The second meeting will be held at the county level so that each county and the communities therein can assess any changes in risk, determine whether implementation of mitigation actions is on schedule or if there are any implementation problems (such as technical, political, legal or coordination issues), and reflect changes in land development or programs that affect mitigation priorities in their respective jurisdictions.

Updating

Plan Amendments

At any time, minor technical changes may be made to the Plan to keep it current. If additional entities would like to join in the planning effort by way of an amendment they may do so provided that the CVCOG approves of the addition and FEMA regulations for adding a jurisdiction are followed. Any changes by a participating jurisdiction to the mitigation actions or modifications in the overall direction of the Plan will be subject to approval by the governing body of that jurisdiction. Once the amendment is approved, it will be transmitted to the Texas Division of Emergency Management (TDEM).

The following factors will be considered in developing an amendment:

Plan Maintenance

- Errors or omissions made in the identification of issues or needs during the preparation of the Plan;
- New issues or needs that were not adequately addressed in the Plan; and
- Changes in information, data or assumptions from those on which the Plan was based.

Five (5) Year Review

The Plan will be thoroughly reviewed by each planning team member at the end of three years from the date of adoption by the local governing body to determine whether there have been any significant changes that necessitate changes in the types of mitigation actions proposed. New development in identified hazard areas, an increased exposure to hazards, disaster declarations, the increase or decrease in capability to address hazards, and changes to federal or state legislation are examples of factors that may affect the content of the Plan Update.

This plan review will provide the CVCOG and participating jurisdictions with an opportunity to evaluate successful actions and document potential losses avoided due to the implementation of specific mitigation measures. The plan review also provides the opportunity to address mitigation actions that may not have been successfully implemented as assigned. It is recommended that the planning team meet to review the Plan at the end of three years, as grant funds may be necessary for the development of a five-year update. Due to the timelines for grant cycles, it is wise planning to begin the review process in advance of the five-year deadline.

Following the review, any revisions deemed necessary will be summarized and utilized according to the reporting procedures and plan amendment process outlined herein. Upon completion of the review and update/amendment process and after being approved by the local governing body, the revised plan will be submitted to the TDEM for final review and approval in coordination with FEMA.

Incorporation

At the beginning of the planning process, each team member was given a capability assessment survey to complete for their jurisdiction. The purpose of this survey was to identify the plans available for the incorporation of the Plan Update by inventorying each jurisdiction's relevant plans, programs and ordinances; identify shortfalls or weaknesses that could hinder the incorporation or implementation of mitigation actions; identify opportunities for establishing or enhancing mitigation policies, programs or projects; and

establish goals based on an understanding of the organizational capacity and technical capability of each community.

Incorporation of the 2005 Plan

The capability survey distributed not only provided an assessment of current planning capabilities, but also served as a critical component in obtaining information on how the 2005 Plan had been incorporated into various planning mechanisms.

Some of the jurisdictions have incorporated the mitigation plan into response to natural disasters within their communities and realized how important it is to work closely with city officials, city law enforcement, and fire departments. During this Plan Update, the CVCOG Region, as in other parts of the state, was experiencing extreme drought conditions and wildfire conditions. Water shortage was and remains a critical issue. Many of the communities and counties developed mitigation actions to include Wildfire Protection Plans and public awareness activities focusing on wildfire danger.

On the whole, the 2005 Plan was not incorporated into other community planning mechanisms, but reviewed during annual budget meetings for grant determinations. Public awareness activities were also maintained; however the mitigation plan itself was not referenced or added as an appendix to other plans. It is the intention that with this Plan Update, revisions will be made and the Plan incorporated into other mechanisms as development continues throughout the CVCOG.

Incorporation of the Plan Update

Table 18-1 identifies planning mechanisms available for all jurisdictions in the CVCOG and provides examples of how the Plan Update will be incorporated into current efforts.

Table 18-1. Examples of Incorporation of the Plan Update

| PLANNING MECHANISM | METHOD OF INCORPORATION |
|----------------------|---|
| Grant Applications | <p>Jurisdictions will consult the Plan Update whenever there are yearly grant funding cycles available through FEMA, including the Pre-Disaster Mitigation (PDM) cycle and when there is a Disaster Declaration for Texas triggering Hazard Mitigation Grant Program (HMGP) funds. Mitigation actions for each jurisdiction will be reviewed by the planning team members and information will be updated for completing applications, such as maps and risk assessment data. If a project is not in the Update, an amendment may be developed.</p> |
| Annual Budget Review | <p>Each jurisdiction that participated in the planning process will review the Update and mitigation actions therein when conducting their annual budget review. When allocating funds for upcoming operating and construction budgets, high priority mitigation actions will be reviewed during City Council and Commissioner Court meetings. Each Planning Team member will be responsible for bringing mitigation actions to their respective county or city to discuss feasibility of the potential project in terms of the availability of funds, grant assistance and a preliminary cost benefit review.</p> |
| Emergency Planning | <p>Based on the results of the Capability Assessment Survey, each jurisdiction in the CVCOG has an Emergency Operations or Management Plan. The Plan Update will be consulted when during updates to each jurisdiction’s local emergency and/or disaster recovery plan. Risk assessment and vulnerability data will be pulled from the plan and reviewed in conjunction with the review, renewal or re-writing of an Emergency Operations or Management Plan. This data will either be included within the new emergency planning mechanism or included as an appendix. Mitigation projects that relate to prevention and protection will also be reviewed for relevance to determine if they should be included.</p> |

| PLANNING MECHANISM | METHOD OF INCORPORATION |
|---|---|
| Capital Improvements | Before any updates to Capital Improvement Plans (CIP) are conducted, each jurisdiction will review the risk assessment and mitigation strategy sections of the Plan Update, as limiting public spending in hazardous zones is one of the most effective long-term mitigation actions available to local governments. Profile information and data regarding NFIP compliance and maintenance will be reviewed in conjunction with any CIP that is developed. If new census or land use data is available, this information should be added to the Plan Update. |
| Floodplain Management and Fire Protection | The Plan Update will be utilized in updating and maintaining floodplain management and fire protection plans, as the goals of both planning mechanisms are similar. In updating or maintaining these plans, the Plan Update will be consulted for NFIP compliance and flood risk (Section 5) and wildfire risk and extent (Section 9). Information from these sections will be reviewed for inclusion. In addition, mitigation actions that address wildfire and flood will be reviewed for inclusion by jurisdiction. |

Continued Public Involvement

Public Involvement over the Past Five Years

Throughout the past five years, the CVCOG has continued to solicit public comment and involvement. The 2005 Plan has been available on the CVCOG website in the Regional Services “Hazard Mitigation” section since FEMA approval.

In addition, participating jurisdictions have implemented several public education programs and campaigns since 2005 in order to maintain public involvement, such as:

- Promoting hazard awareness and mitigation activities through media outlets;
- Conducting public education activities through seminars and presentations at conferences and local school events;
- Developing pamphlets and hosting public forums, as well as going door to door ; and

- Posting public surveys.

Public Involvement Going Forward

Input from the public was an integral part of the preparation of the Plan Update and will continue to be essential as the Plan grows and changes. As noted above, a significant change to this plan will require opportunities for the public to make its views known.

This Plan will be posted on the CVCOG website, www.cvcog.org, and the websites of participating jurisdictions, where available, so that officials and the public will be able to provide ongoing feedback. A copy of the updated plan also will be kept for public review at CVCOG headquarters.

Further, if necessary, the CVCOG can designate voluntary citizens or willing members of the private sectors as members of the planning team, as well as utilize local media to notify the public of any maintenance or periodic review activities taking place.

APPENDIX A

| | |
|---|----|
| OVERVIEW | 1 |
| STUDY AREA DEFINITION..... | 2 |
| POPULATION DATA..... | 2 |
| ASSET INVENTORY | 5 |
| METHODOLOGY | 8 |
| HAZARD PROFILES, VULNERABILITY, AND IMPACT | 8 |
| PIPELINE FAILURE | 8 |
| <i>Hazard Description</i> | 8 |
| <i>Location and Extent</i> | 9 |
| <i>Previous Occurrences</i> | 10 |
| <i>Probability of Future Events</i> | 10 |
| <i>Vulnerability and Impact</i> | 10 |
| HAZARDOUS MATERIAL INCIDENT (FIXED AND MOBILE) | 13 |
| <i>Hazard Description</i> | 13 |
| <i>Location</i> | 14 |
| <i>Extent</i> | 16 |
| <i>Previous Occurrences</i> | 16 |
| <i>Probability of Future Events</i> | 17 |
| <i>Vulnerability and Impact</i> | 17 |

Overview

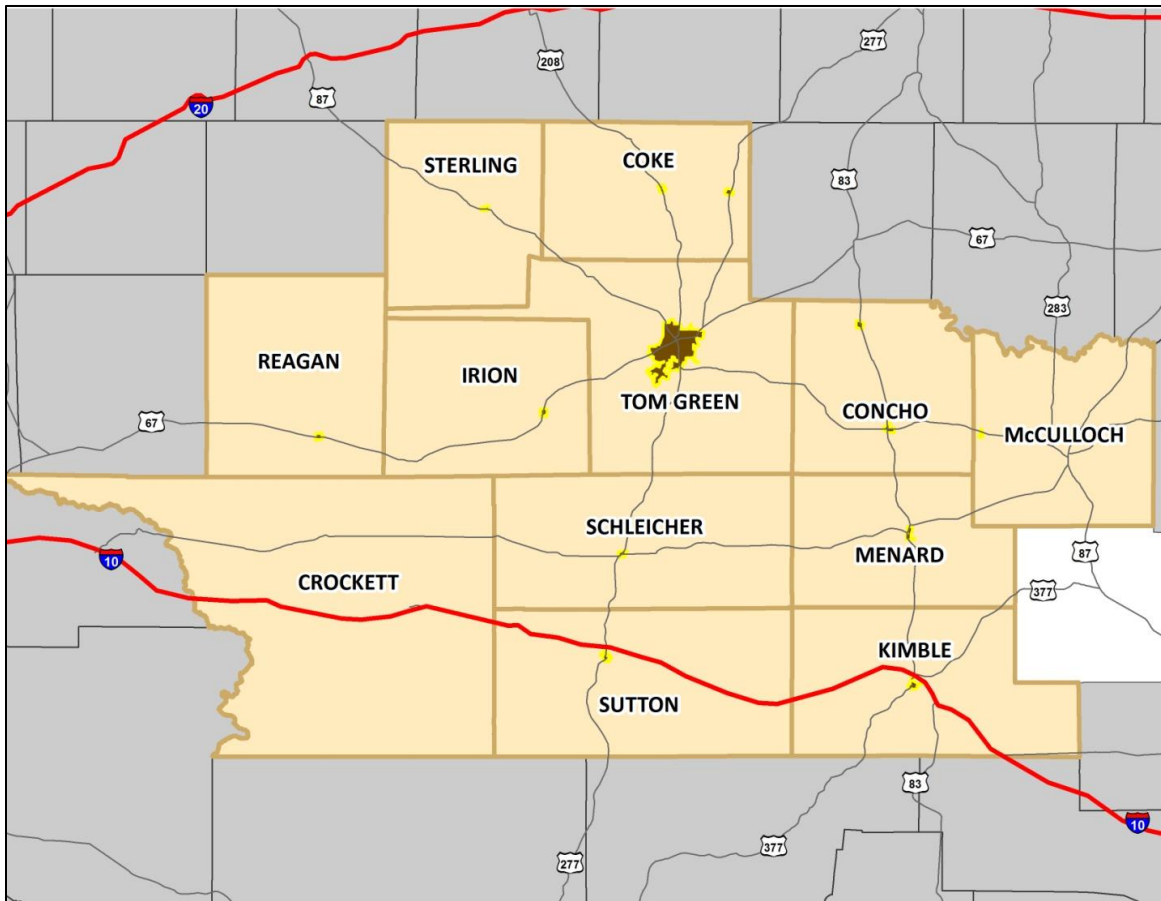
A risk assessment study was conducted to evaluate the probability of occurrence of a hazard event and the potential associated losses. This evaluation presents loss estimates to provide a foundation for evaluating mitigation measures in the event that a disaster occurs. The loss estimates are intended to support the decision making process for mitigation efforts.

Loss estimates calculated for this risk assessment are approximate, based upon available data and methodologies. These estimates should be used to understand relative risk from hazards and potential losses and are not intended to be predictive of precise results. Uncertainties are inherent in any loss estimation methodology arising in part from incomplete scientific knowledge concerning natural hazards and their effects on the built environment. Uncertainties also result from approximations and simplifications that are necessary for a comprehensive analysis (e.g., incomplete or outdated inventory, or demographic or economic parameter data). These factors can result in a range of uncertainty in loss estimates produced by this analysis, possibly at a factor of two or more.

Study Area Definition

The study area for the risk assessment consists of 12 counties of the Concho Valley Council of Governments (Figure A-1).

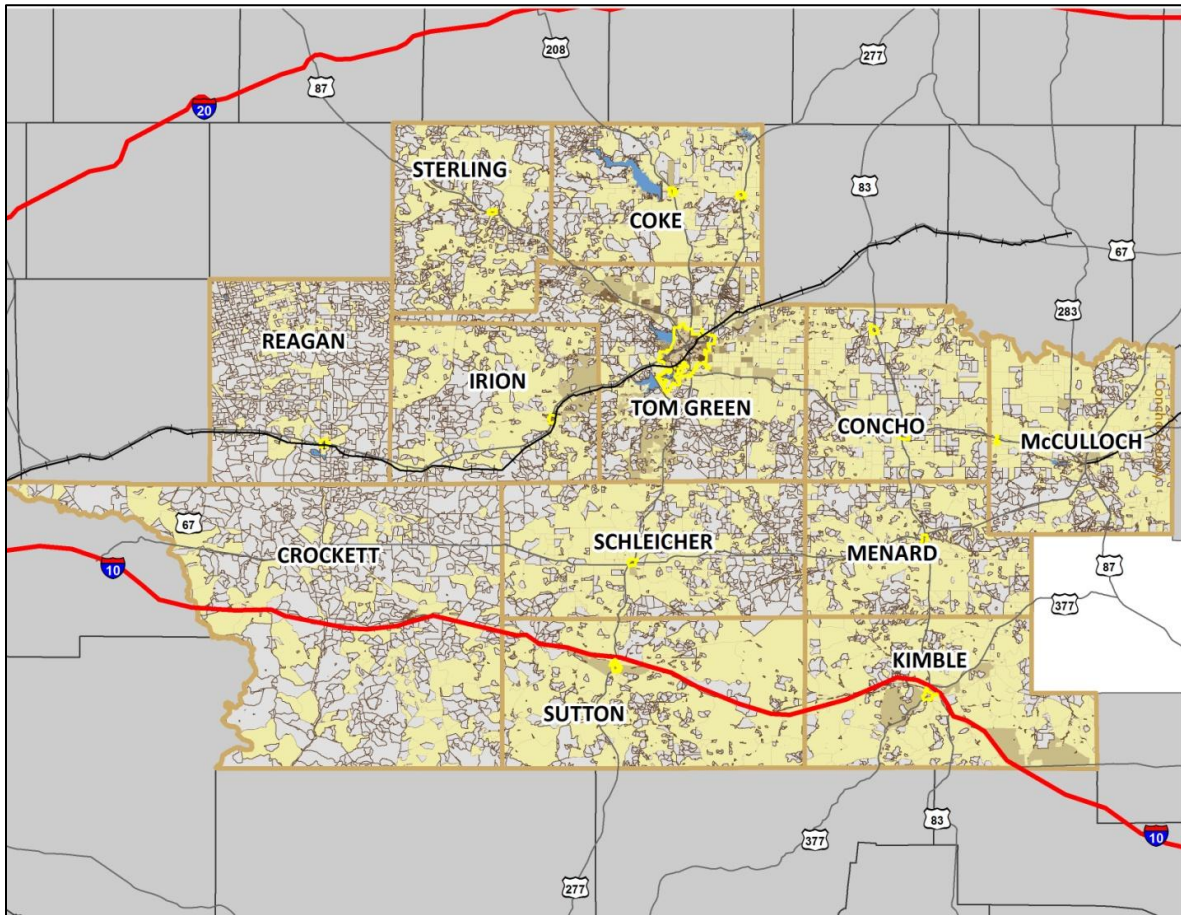
Figure A-1. CVCOG Study Area



Population Data

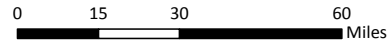
The population data for the study area was distributed at the census block level, which was generated from the 2000 Census population data. Figure A-2 below represents the population data used in this hazard analyses.

Figure A-2. Population Distribution by Census Block for CVCOG



LEGEND

- | | | |
|-----------------------------|----------------------------|-------------------|
| Population Per Census Block | CVCOG County | Interstates |
| 0 | Participating Municipality | U.S. Highways |
| 1 - 42 | Non-Participating County | Rail |
| 43 - 97 | Surrounding Counties | Major Water Areas |
| 98 - 202 | | |
| 203 - 400 | | |
| 401 - 1303 | | |



According to the 2000 U.S. Census Bureau, the 12 county planning area has a total population of 148,212. The table below provides a numeric breakdown of population by jurisdiction.

Table A-1. Population Distribution by Jurisdiction¹

| JURISDICTION | TOTAL 2000 POPULATION | ESTIMATED SPECIAL NEEDS POPULATION | |
|--------------------------|-----------------------|------------------------------------|-------------------------|
| | | Elderly (Over 65) | Low Income (< \$20,000) |
| Coke County | 3,864 | 931 | 465 |
| Bronte | 1,076 | 264 | 161 |
| Robert Lee | 1,171 | 335 | 163 |
| Uninc. Coke County | 1,617 | 332 | 141 |
| Concho County | 3,966 | 547 | 310 |
| Eden | 2,561 | 282 | 186 |
| Paint Rock | 320 | 43 | 53 |
| Uninc. Concho County | 1,085 | 222 | 71 |
| Crockett County | 4,099 | 528 | 783 |
| (No Incorporated Cities) | | | |
| Irion County | 1,771 | 276 | 148 |
| Mertzon | 839 | 127 | 80 |
| Uninc. Irion County | 932 | 149 | 68 |
| Kimble County | 4,468 | 932 | 828 |
| Junction | 2,618 | 474 | 567 |
| Uninc. Kimble County | 1,850 | 458 | 261 |
| McCulloch County | 8,205 | 1,602 | 1,798 |
| Melvin | 155 | 35 | 80 |
| Uninc. McCulloch County | 8,050 | 1,567 | 1,718 |
| Menard County | 2,360 | 518 | 597 |
| Menard | 1,653 | 340 | 535 |
| Uninc. Menard County | 707 | 178 | 62 |
| Reagan County | 3,326 | 342 | 387 |
| Big Lake | 2,885 | 293 | 318 |
| Uninc. Reagan County | 441 | 49 | 69 |
| Schleicher County | 2,935 | 482 | 621 |
| Eldorado | 1,951 | 312 | 504 |
| Uninc. Schleicher County | 984 | 170 | 117 |
| Sterling County | 1,393 | 204 | 230 |
| Sterling City | 1,081 | 170 | 186 |
| Uninc. Sterling County | 312 | 34 | 44 |
| Sutton County | 4,077 | 508 | 726 |
| Sonora | 2,924 | 312 | 492 |
| Uninc. Sutton County | 1,153 | 196 | 234 |

¹ Source: HAZUS

Appendix A

| JURISDICTION | TOTAL 2000 POPULATION | ESTIMATED SPECIAL NEEDS POPULATION | |
|------------------------------|-----------------------|------------------------------------|-------------------------|
| | | Elderly (Over 65) | Low Income (< \$20,000) |
| Tom Green County | 104,010 | 13,969 | 15,193 |
| San Angelo | 88,439 | 12,211 | 13,275 |
| Uninc. Tom Green County | 15,571 | 1,758 | 1,918 |
| TOTALS FOR STUDY AREA | 148,212 | 21,718 | 22,574 |

Asset Inventory

The full data set that was used in the analysis contains location (street address and spatial coordinates) and improvement value. This data is further introduced and explained within the discussion of individual hazards. It is important to note that some discrepancies may exist in portions of the analyses in that some parcels may intersect two different jurisdictional boundaries or may intersect more than one hazard boundary.

Table A-2. Estimated Essential Facilities Distribution in CVCOG²

| JURISDICTION | SCHOOLS | | MEDICAL FACILITIES | | FIRE | | POLICE | |
|--------------------------|----------|---------------------|--------------------|--------------------|----------|---------------------|----------|--------------------|
| | Num. | Value | Num. | Value | Num. | Value | Num. | Value |
| Coke County | 9 | \$13,565,000 | 0 | \$0 | 2 | Not Reported | 1 | \$1,246,000 |
| Bronte | 3 | \$5,959,000 | 0 | \$0 | 1 | - | 0 | \$0 |
| Robert Lee | 6 | \$7,606,000 | 0 | \$0 | 1 | - | 0 | \$0 |
| Uninc. Coke County | 0 | \$0 | 0 | \$0 | 0 | - | 1 | \$1,246,000 |
| Concho County | 8 | \$9,582,000 | 1 | \$3,915,000 | 2 | Not Reported | 3 | \$3,738,000 |
| Eden | 5 | \$6,271,000 | 1 | \$3,915,000 | 1 | - | 2 | \$2,492,000 |
| Paint Rock | 2 | \$1,762,000 | 0 | \$0 | 0 | - | 0 | \$0 |
| Uninc. Concho County | 1 | \$1,549,000 | 0 | \$0 | 1 | - | 1 | \$1,246,000 |
| Crockett County | 4 | \$8,136,000 | 0 | - | 1 | Not Reported | 1 | \$1,246,000 |
| (No Incorporated Cities) | | | | | | | | |
| Irion County | 2 | \$3,963,000 | 0 | \$0 | 0 | Not Reported | 1 | \$1,246,000 |
| Mertzon | 0 | \$0 | 0 | \$0 | 0 | - | 0 | \$0 |
| Uninc. Irion County | 2 | \$3,963,000 | 0 | \$0 | 0 | - | 1 | \$1,246,000 |
| Kimble County | 3 | \$8,247,000 | 1 | \$2,936,000 | 0 | Not Reported | 2 | \$2,492,000 |
| Junction | 3 | \$8,247,000 | 1 | \$2,936,000 | 0 | - | 2 | \$2,492,000 |

² Refer to **Appendix D** for a more complete and detailed listing of essential facilities in the CVCOG study area.

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| JURISDICTION | SCHOOLS | | MEDICAL FACILITIES | | FIRE | | POLICE | |
|------------------------------|------------|----------------------|--------------------|----------------------|-----------|---------------------|-----------|---------------------|
| | Num. | Value | Num. | Value | Num. | Value | Num. | Value |
| Uninc. Kimble County | 0 | \$0 | 0 | \$0 | 0 | - | 0 | \$0 |
| McCulloch County | 7 | \$21,547,000 | 1 | \$15,285,000 | 5 | Not Reported | 1 | \$1,246,000 |
| Melvin | 0 | \$0 | 0 | \$0 | 0 | - | 0 | \$0 |
| Uninc. McCulloch County | 7 | \$21,547,000 | 1 | \$15,285,000 | 5 | - | 1 | \$1,246,000 |
| Menard County | 3 | \$3,866,000 | 0 | \$0 | 1 | Not Reported | 1 | \$1,246,000 |
| Menard | 3 | \$3,866,000 | 0 | \$0 | 1 | - | 1 | \$1,246,000 |
| Uninc. Menard County | 0 | \$0 | 0 | \$0 | 0 | - | 0 | \$0 |
| Reagan County | 3 | \$8,712,000 | 0 | \$0 | 2 | Not Reported | 2 | \$2,492,000 |
| Big Lake | 3 | \$8,712,000 | 0 | \$0 | 2 | - | 2 | \$2,492,000 |
| Uninc. Reagan County | 0 | \$0 | 0 | \$0 | 0 | - | 0 | \$0 |
| Schleicher County | 3 | \$6,470,000 | 1 | \$2,740,000 | 1 | Not Reported | 2 | \$1,246 |
| Eldorado | 1 | \$2,337,000 | 0 | \$0 | 1 | - | 0 | \$0 |
| Uninc. Schleicher County | 2 | \$4,133,000 | 1 | \$2,470,000 | 0 | - | 2 | \$1,246,000 |
| Sterling County | 3 | \$2,627,000 | 0 | \$0 | 0 | Not Reported | 1 | \$1,246,000 |
| Sterling City | 3 | \$2,627,000 | 0 | \$0 | 0 | - | 1 | \$1,246,000 |
| Uninc. Sterling County | 0 | \$0 | 0 | \$0 | 0 | - | 0 | \$0 |
| Sutton County | 3 | \$12,255,000 | 1 | \$2,545,000 | 1 | Not Reported | 2 | \$2,492,000 |
| Sonora | 3 | \$12,255,000 | 1 | \$2,545,000 | 1 | - | 2 | \$2,492,000 |
| Uninc. Sutton County | 0 | \$0 | 0 | \$0 | 0 | - | 0 | \$0 |
| Tom Green County | 93 | \$286,808,000 | 5 | \$106,091,000 | 13 | Not Reported | 6 | \$7,476,000 |
| San Angelo | 42 | \$229,443,000 | 4 | \$90,432,000 | 3 | - | 5 | \$6,230,000 |
| Uninc. Tom Green County | 51 | \$57,365,000 | 1 | \$15,659,000 | 10 | - | 1 | \$1,246,000 |
| TOTALS FOR STUDY AREA | 141 | \$385,778,000 | 10 | \$133,512,000 | 28 | Not Reported | 23 | \$26,167,246 |

Transportation and utility lifeline inventories are broken into the estimated length (in kilometers) of oil and gas pipelines, roads, highways, and railroads. Hazardous materials, which include industrial chemicals, explosives, flammables, toxins and radioactive materials are broken into the estimated number of facilities (i.e., includes georeferenced Toxic Release Inventory [TRI] and Tier 2 sites) in the study area. The table below includes the amount (in kilometers) of oil and gas pipelines, highways and railways, and the number of hazardous materials sites in the study area. Analysis of impact of technological hazards was framed within this demography and infrastructure.

Table A-3. Infrastructure, Lifelines, and Hazardous Materials by Jurisdiction³

| JURISDICTION | INFRASTRUCTURE AND LIFELINES | | | | HAZARDOUS MATERIALS FACILITIES |
|--------------------------|------------------------------|-----------------|---------------------------|---------------|--------------------------------|
| | Oil Pipe (km) | Gas pipe (km) | Highway ⁴ (km) | Railroad (km) | Number of Sites |
| Coke County | 346.89 | 894.59 | 51.19 | 0 | 41 |
| Bronte | 0 | 0.68 | 1.97 | 0 | 1 |
| Robert Lee | 0 | 0 | 0.00 | 0 | 1 |
| Uninc. Coke County | 346.89 | 893.91 | 49.21 | 0 | 39 |
| Concho County | 30.56 | 357.16 | 113.59 | 0 | 26 |
| Eden | 0 | 0 | 5.35 | 0 | 0 |
| Paint Rock | 0 | 6.82 | 2.33 | 0 | 0 |
| Uninc. Concho County | 30.56 | 350.94 | 105.92 | 0 | 26 |
| Crockett County | 607.12 | 5,402.07 | 171.31 | 1.46 | 532 |
| (No Incorporated Cities) | | | | | |
| Irion County | 332.25 | 1987.22 | 65.55 | 68.54 | 426 |
| Mertzon | 0 | 0 | 2.56 | 1.29 | 0 |
| Uninc. Irion County | 332.25 | 1,987.22 | 62.99 | 67.26 | 426 |
| Kimble County | 141.52 | 195.20 | 195.23 | 0 | 3 |
| Junction | 0 | 0 | 2.60 | 0 | 0 |
| Uninc. Kimble County | 141.52 | 195.20 | 192.63 | 0 | 3 |
| McCulloch County | 53.71 | 119.10 | 183.43 | 26.45 | 2 |
| Melvin | 0 | 0 | 0.15 | 0.00 | 0 |
| Uninc. McCulloch County | 53.71 | 119.10 | 183.28 | 26.45 | 2 |
| Menard County | 13.29 | 149.31 | 100.36 | 0 | 4 |
| Menard | 0 | 0 | 4.41 | 0 | 2 |
| Uninc. Menard County | 13.29 | 149.31 | 95.95 | 0 | 2 |
| Reagan County | 1181.44 | 3872.96 | 47.25 | 48.21 | 451 |
| Big Lake | 0 | 2.03 | 1.57 | 1.53 | 0 |
| Uninc. Reagan County | 1,181.44 | 3,870.93 | 45.68 | 46.68 | 451 |
| Schleicher County | 451.54 | 1,892.37 | 127.00 | 0 | 245 |
| Eldorado | 0 | 0 | 3.75 | 0 | 1 |
| Uninc. Schleicher County | 451.54 | 1892.37 | 123.25 | 0 | 244 |
| Sterling County | 272.91 | 1563.94 | 50.49 | 0 | 91 |

³ Appendix D provides a more detailed listing of the hazardous materials facilities included in Table 3.

⁴ For the purposes of this risk assessment, highways include Interstates and U.S. highways.

| JURISDICTION | INFRASTRUCTURE AND LIFELINES | | | | HAZARDOUS MATERIALS FACILITIES |
|------------------------------|------------------------------|------------------|---------------------------|---------------|--------------------------------|
| | Oil Pipe (km) | Gas pipe (km) | Highway ⁴ (km) | Railroad (km) | Number of Sites |
| Sterling City | 0 | 0 | 2.04 | 0 | 0 |
| Uninc. Sterling County | 272.91 | 1,563.94 | 48.45 | 0 | 91 |
| Sutton County | 170.51 | 5538.15 | 135.46 | 0 | 122 |
| Sonora | 0 | 2.31 | 3.78 | 0 | 5 |
| Uninc. Sutton County | 170.51 | 5,535.84 | 131.68 | 0 | 116 |
| Tom Green County | 149.28 | 672.98 | 194.72 | 53.22 | 94 |
| San Angelo | 0 | 69.03 | 33.02 | 15.33 | 7 |
| Uninc. Tom Green County | 149.28 | 603.95 | 161.70 | 37.89 | 87 |
| TOTALS FOR STUDY AREA | 3,751.02 | 22,645.05 | 1,435.59 | 197.88 | 2,037 |

Methodology

The objective of the GIS-based analysis was to determine the estimated vulnerability of people, buildings, and critical facilities to the identified hazards using best available data. In so doing, local databases, such as local tax assessor records, parcel boundaries, building footprints, and critical facilities data, were used in combination with digital hazard data. The results of the analysis provided an estimated number of people, as well as the number and value of buildings and critical facilities determined to be potentially at risk to those hazards with delineable geographic hazard boundaries, i.e., the technological hazards. A more specific description of the GIS-based analysis for each particular hazard is provided in the discussion of each individual hazard.

Hazard Profiles, Vulnerability, and Impact

Pipeline Failure

Hazard Description

Fuel pipeline breach or pipeline failure addresses the rare, but serious hazard of an oil or natural gas pipeline. An estimated 2.2 million miles of pipelines in the United States carry hazardous materials. Natural gas pipelines transport natural gas. Oil or liquid petroleum pipelines transport crude oil and refined products from crude oils, such as gasoline, home heating oil, jet fuel and kerosene in addition to liquefied propane, ethylene, butane and some petrochemical



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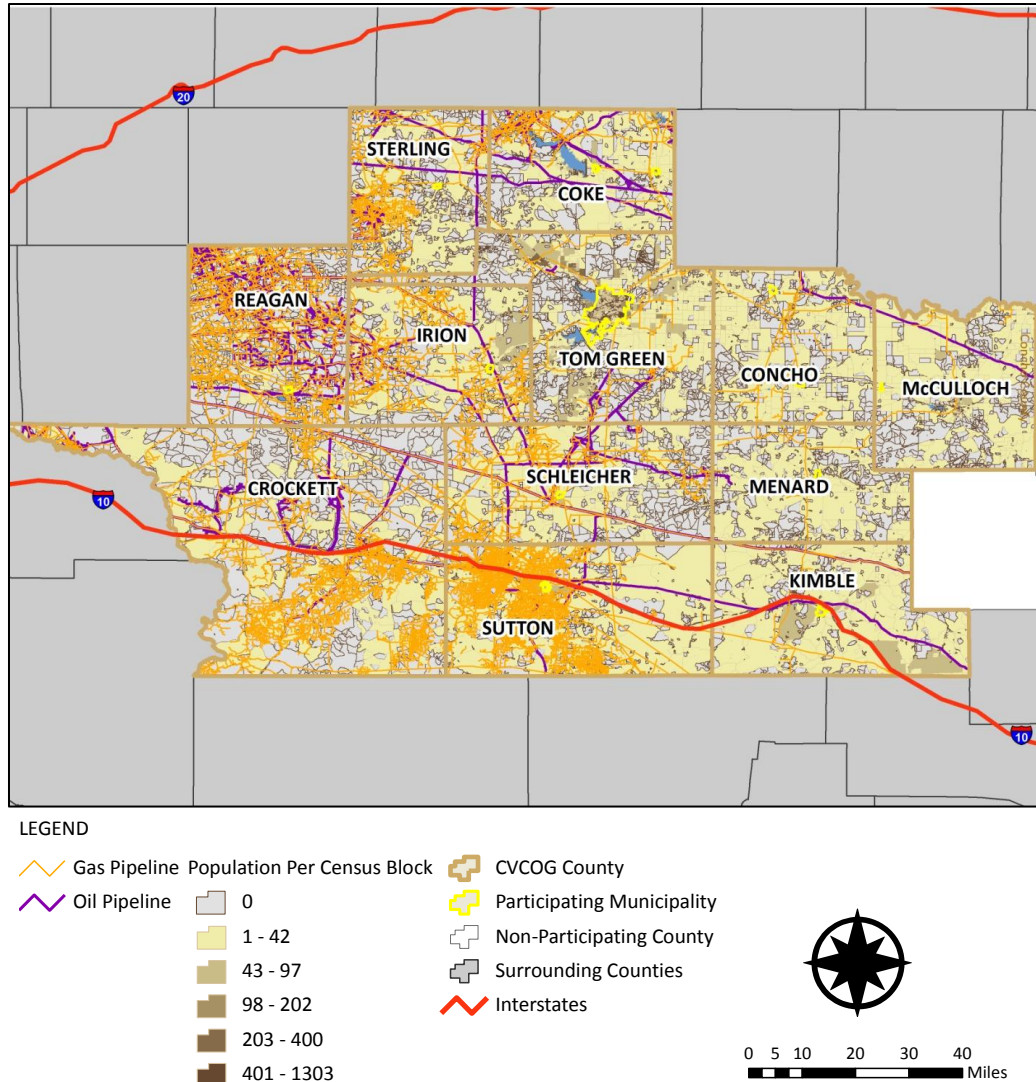
products. Occasionally oil pipelines are also used to transport liquefied gases, such as carbon dioxide.

Pipeline failure is a rare occurrence, but has the potential to cause extensive property damage and loss of life. Pipelines have caused fires and explosions that killed more than 200 people and injured more than 1,000 people nationwide and 50 people in Texas in the last decade.

Location and Extent

Figure A-3 shows the locations of gas and oil pipelines throughout the CVCOG Region. It is important to note that due to scale, some pipelines cannot be seen on maps where one pipeline runs directly over another or where pipelines appear too close together to be visible on the map.

Figure A-1. Gas and Oil Pipelines



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If any of these energy pipelines, gas or oil, were to rupture, such an event could endanger property and lives in the immediate area (up to 500 meters for immediate [primary] impact and up to 2,500 meters for secondary impact).

Previous Occurrences

Railroad Commission of Texas records indicate there were no pipeline incidents reported for the CVCOG Region between 1985 and 2010.

Probability of Future Events

Although approximately 26,396 kilometers of pipeline exist in the study area, no historic incidents have been recorded from 1985 to 2010. Based on historic incident records, a pipeline incident for the CVCOG is unlikely.

Vulnerability and Impact

The total number of population and parcels potentially at risk from gas and oil pipeline failures, respectively, are shown in Tables A-4 and A-5 below. The analysis for gas pipelines consists of natural gas and for oil pipelines, the analysis included natural gas liquids. The immediate (primary) area of impact for both types of pipeline accidents is a 500-meter buffer. The secondary area of impact for both types of pipeline accidents is a 2,500-meter buffer. Both types of impact can inflict substantial damage on the surrounding areas.

Table A-4. Potential Impact Due to Gas Pipeline Failure⁵

| JURISDICTION | IMMEDIATE IMPACT (500 METERS) | | | SECONDARY IMPACT (2,500 METERS) | | |
|--------------------------|-------------------------------|--------------------------|---------------------------------|---------------------------------|--------------------------|---------------------------------|
| | Number People Exposed | Number Buildings Exposed | Value of Buildings Exposed (\$) | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) |
| Coke County | 274 | 368 | \$25,741,000 | 3,323 | 2,952 | \$244,666,000 |
| Bronte | 46 | 24 | \$2,033,000 | 1,076 | 643 | \$54,912,000 |
| Robert Lee | 0 | 0 | \$0 | 1,147 | 980 | \$70,672,000 |
| Uninc. Coke County | 228 | 344 | \$23,708,000 | 1,100 | 1,329 | \$119,082,000 |
| Concho County | 113 | 68 | \$5,399,000 | 1,529 | 995 | \$97,739,000 |
| Eden | 0 | 0 | \$0 | 946 | 568 | \$64,270,000 |
| Paint Rock | 33 | 16 | \$994,000 | 320 | 177 | \$11,315,000 |
| Uninc. Concho County | 80 | 52 | \$4,405,000 | 263 | 250 | \$22,154,000 |
| Crockett County | 2,913 | 1,782 | \$156,973,000 | 3,927 | 2,646 | \$253,192,000 |
| (No Incorporated Cities) | | | | | | |

⁵ Source: GIS Analysis

This analysis assumes no climate impacts or changes in terrain.

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| JURISDICTION | IMMEDIATE IMPACT (500 METERS) | | | SECONDARY IMPACT (2,500 METERS) | | |
|------------------------------|-------------------------------|--------------------------|---------------------------------|---------------------------------|--------------------------|---------------------------------|
| | Number People Exposed | Number Buildings Exposed | Value of Buildings Exposed (\$) | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) |
| Irion County | 91 | 97 | \$7,488,000 | 1,289 | 847 | \$71,771,000 |
| Mertzou | 9 | 7 | \$442,000 | 839 | 483 | \$38,576,000 |
| Uninc. Irion County | 82 | 90 | \$7,046,000 | 450 | 364 | \$33,195,000 |
| Kimble County | 36 | 71 | \$6,035,000 | 355 | 526 | \$47,200,000 |
| Junction | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Uninc. Kimble County | 36 | 71 | \$6,035,000 | 355 | 526 | \$47,200,000 |
| McCulloch County | 926 | 604 | \$32,408,000 | 6,054 | 3,986 | \$317,814,000 |
| Melvin | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Uninc. McCulloch County | 926 | 604 | \$32,408,000 | 6,054 | 3,986 | \$317,814,000 |
| Menard County | 33 | 27 | \$2,596,000 | 209 | 197 | \$17,976,000 |
| Menard | 0 | 0 | \$0 | 31 | 25 | \$1,867,000 |
| Uninc. Menard County | 33 | 27 | \$2,596,000 | 178 | 172 | \$16,109,000 |
| Reagan County | 771 | 671 | \$48,021,000 | 3,326 | 2,145 | \$178,789,000 |
| Big Lake | 395 | 221 | \$22,414,000 | 2,849 | 1,516 | \$146,223,000 |
| Uninc. Reagan County | 376 | 450 | \$25,607,000 | 477 | 629 | \$32,566,000 |
| Schleicher County | 738 | 589 | \$37,305,000 | 2,793 | 1,966 | \$147,462,000 |
| Eldorado | 303 | 283 | \$10,131,000 | 1,951 | 1,403 | \$95,802,000 |
| Uninc. Schleicher County | 435 | 306 | \$27,174,000 | 842 | 563 | \$51,660,000 |
| Sterling County | 270 | 169 | \$12,205,000 | 1,285 | 885 | \$84,985,000 |
| Sterling City | 180 | 99 | \$7,625,000 | 1,063 | 690 | \$66,795,000 |
| Uninc. Sterling County | 270 | 169 | \$12,205,000 | 1,285 | 885 | \$84,985,000 |
| Sutton County | 1,389 | 826 | \$68,348,000 | 3,964 | 2,422 | \$245,559,000 |
| Sonora | 650 | 310 | \$27,815,000 | 2,891 | 1,613 | \$158,154,000 |
| Uninc. Sutton County | 739 | 516 | \$40,533,000 | 1,073 | 809 | \$87,405,000 |
| Tom Green County | 4,472 | 2,180 | \$249,650,000 | 38,037 | 16,105 | \$2,210,164,000 |
| San Angelo | 1,536 | 692 | \$106,881,000 | 26,891 | 10,492 | \$1,631,713,000 |
| Uninc. Tom Green County | 2,936 | 1,488 | \$142,769,000 | 11,146 | 5,613 | \$578,451,000 |
| TOTALS FOR STUDY AREA | 12,026 | 7,452 | \$652,169,000 | 66,091 | 35,672 | \$3,917,317,000 |

Table A-5. Potential Impact Due to Oil Pipeline Failure⁶

| JURISDICTION | IMMEDIATE IMPACT (500 METERS) | | | SECONDARY IMPACT (2,500 METERS) | | |
|--------------------------|-------------------------------|--------------------------|---------------------------------|---------------------------------|--------------------------|---------------------------------|
| | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) |
| Coke County | 114 | 173 | \$11,993,000 | 819 | 967 | \$67,997,000 |
| Bronte | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Robert Lee | 0 | 0 | \$0 | 249 | 193 | \$11,279,000 |
| Uninc. Coke County | 114 | 173 | \$11,993,000 | 570 | 774 | \$56,718,000 |
| Concho County | 3 | 5 | \$272,000 | 25 | 34 | \$2,221,000 |
| Eden | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Paint Rock | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Uninc. Concho County | 3 | 5 | \$272,000 | 25 | 34 | \$2,221,000 |
| Crockett County | 768 | 320 | \$44,734,000 | 3,432 | 1,994 | \$209,626,000 |
| (No Incorporated Cities) | | | | | | |
| Irion County | 176 | 89 | \$8,275,000 | 1,211 | 733 | \$71,446,000 |
| Mertzon | 67 | 33 | \$2,400,000 | 839 | 483 | \$38,576,000 |
| Uninc. Irion County | 109 | 56 | \$5,875,000 | 372 | 250 | \$32,870,000 |
| Kimble County | 160 | 161 | \$13,946,000 | 758 | 769 | \$74,657,000 |
| Junction | 0 | 0 | \$0 | 237 | 134 | \$17,747,000 |
| Uninc. Kimble County | 160 | 161 | \$13,946,000 | 521 | 635 | \$56,910,000 |
| McCulloch County | 75 | 58 | \$5,218,000 | 152 | 131 | \$11,321,000 |
| Melvin | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Uninc. McCulloch County | 75 | 58 | \$5,218,000 | 152 | 131 | \$11,321,000 |
| Menard County | 0 | 0 | \$0 | 14 | 11 | \$969,000 |
| Menard | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Uninc. Menard County | 0 | 0 | \$0 | 14 | 11 | \$969,000 |
| Reagan County | 129 | 195 | \$8,952,000 | 3,181 | 2,001 | \$165,312,000 |
| Big Lake | 5 | 10 | \$288,000 | 2,837 | 1,504 | \$143,760,000 |
| Uninc. Reagan County | 124 | 185 | \$8,664,000 | 344 | 497 | \$21,552,000 |
| Schleicher County | 97 | 71 | \$9,243,000 | 1,205 | 809 | \$67,412,000 |
| Eldorado | 0 | 0 | \$0 | 675 | 507 | \$35,636,000 |

⁶ Source: GIS Analysis
 This analysis assumes no climate impacts or changes in terrain.

| JURISDICTION | IMMEDIATE IMPACT (500 METERS) | | | SECONDARY IMPACT (2,500 METERS) | | |
|------------------------------|-------------------------------|--------------------------|---------------------------------|---------------------------------|--------------------------|---------------------------------|
| | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) |
| Uninc. Schleicher County | 97 | 71 | \$9,243,000 | 530 | 302 | \$31,776,000 |
| Sterling County | 37 | 24 | \$1,581,000 | 117 | 81 | \$4,936,000 |
| Sterling City | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Uninc. Sterling County | 37 | 24 | \$1,581,000 | 117 | 81 | \$4,936,000 |
| Sutton County | 5 | 9 | \$533,000 | 582 | 358 | \$44,290,000 |
| Sonora | 0 | 0 | \$0 | 352 | 174 | \$2,191,800 |
| Uninc. Sutton County | 5 | 9 | \$533,000 | 230 | 184 | \$42,098,200 |
| Tom Green County | 93 | 83 | \$4,407,000 | 910 | 716 | \$54,947,000 |
| San Angelo | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Uninc. Tom Green County | 93 | 83 | \$4,407,000 | 910 | 716 | \$54,947,000 |
| TOTALS FOR STUDY AREA | 1,657 | 1,188 | \$109,154,000 | 12,406 | 8,604 | \$775,134,000 |

Oil and gas pipeline failure can have a substantial impact. Such events can cause multiple deaths, completely shut down facilities for thirty days or more, and cause more than fifty percent of affected properties to be destroyed or suffer major damage.

Hazardous Material Incident (Fixed and Mobile)

Hazard Description

In a hazardous material incident, solid, liquid and/or gaseous contaminants are released from fixed or mobile containers. Weather conditions will directly affect how the hazard develops.

The Toxics Release Inventory (TRI) is a publicly available database from the federal Environmental Protection Agency (EPA) that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups, as well as federal facilities. This inventory was established under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and expanded by the Pollution Prevention Act of 1990. Each year, facilities that meet certain activity thresholds must report their releases and other waste management activities for listed toxic chemicals to EPA and to their state or tribal entity.

A facility must report if it meets the following three criteria:

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- The facility falls within one of the following industrial categories: manufacturing; metal mining; coal mining; electric generating facilities that combust coal and/or oil; chemical wholesale distributors; petroleum terminals and bulk storage facilities; RCRA Subtitle C treatment, storage and disposal (TSD) facilities; and solvent recovery services.
- Have 10 or more full-time employee equivalents.
- Manufactures or processes more than 25,000 pounds or otherwise uses more than 10,000 pounds of any listed chemical during the calendar year. Persistent, bioaccumulative and toxic (PBT) chemicals are subject to different thresholds of 10 pounds, 100 pounds or 0.1 grams depending on the chemical.

Tier 2 data is a publicly available database from the Texas Department of State Health Services Tier 2 Chemical Reporting Program. Under the community right-to-know program laws upheld at the state and federal level, all facilities which store significant quantities of hazardous chemicals must share this information with state and local emergency responders and planners. Facilities in Texas share this information by filing annual hazardous chemical inventories with the state, with Local Emergency Planning Committees (LEPCs) and with local fire departments. The Texas Tier 2 Reports contain facility identification information and detailed chemical data about hazardous chemicals stored at the facility.

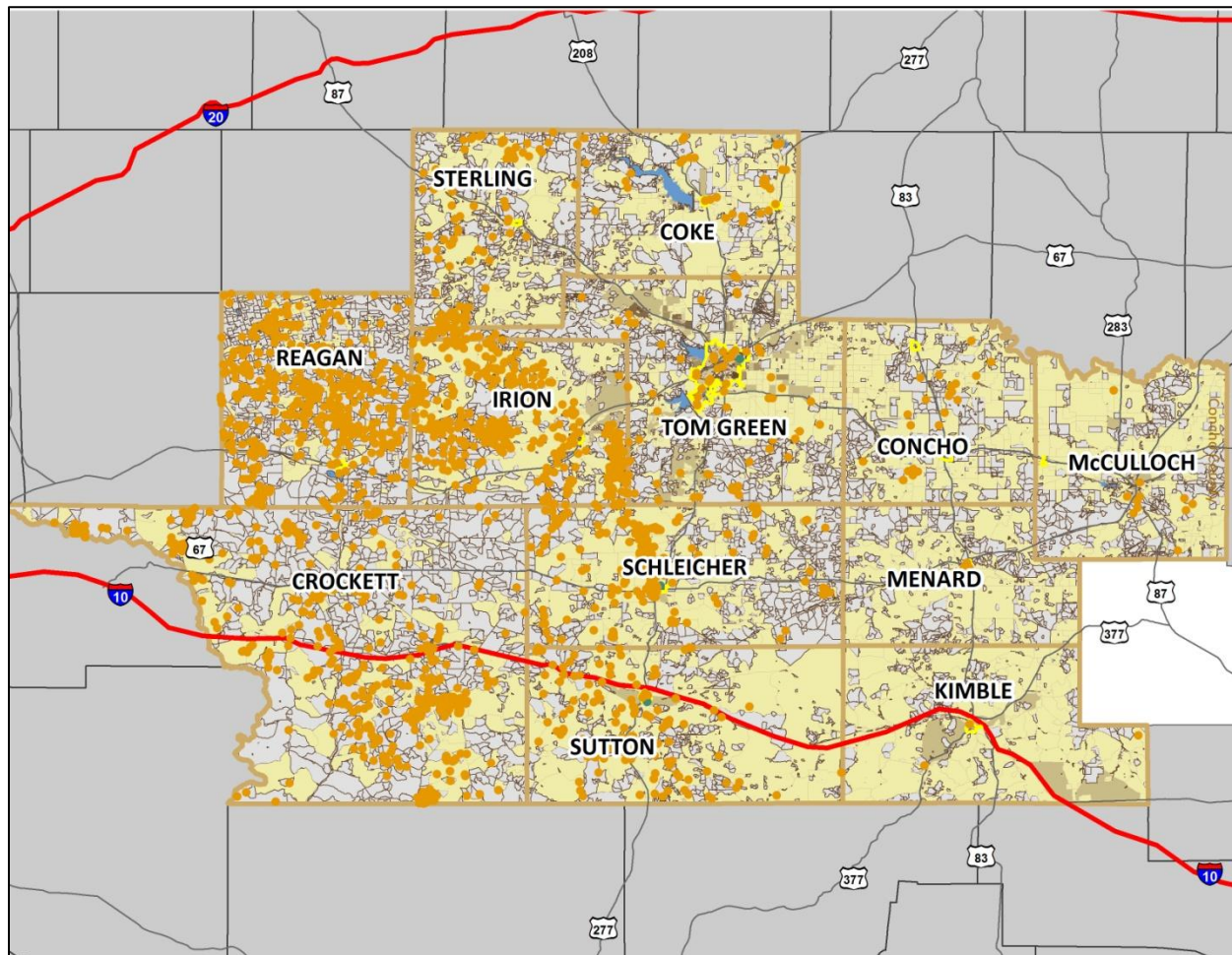
A facility must report if it meets the following criteria:

- Any company using chemicals that could present a physical or health hazard must report them, according to Tier 2 requirements.
- If an industry has an OSHA deemed hazardous chemical that exceeds the appropriate threshold at a certain point in time, then the chemical must be reported. These chemicals may be on the list of 356 Extremely Hazardous Substances (EHS) or could be one of the 650,000 reportable hazardous substances (not on the EHS list). This reporting format is for a "snapshot in time". EHS chemicals have to be reported if the quantity is either greater than 500 pounds, or if the Threshold Planning Quantity (TPQ) amount is less than 500 pounds.

Location

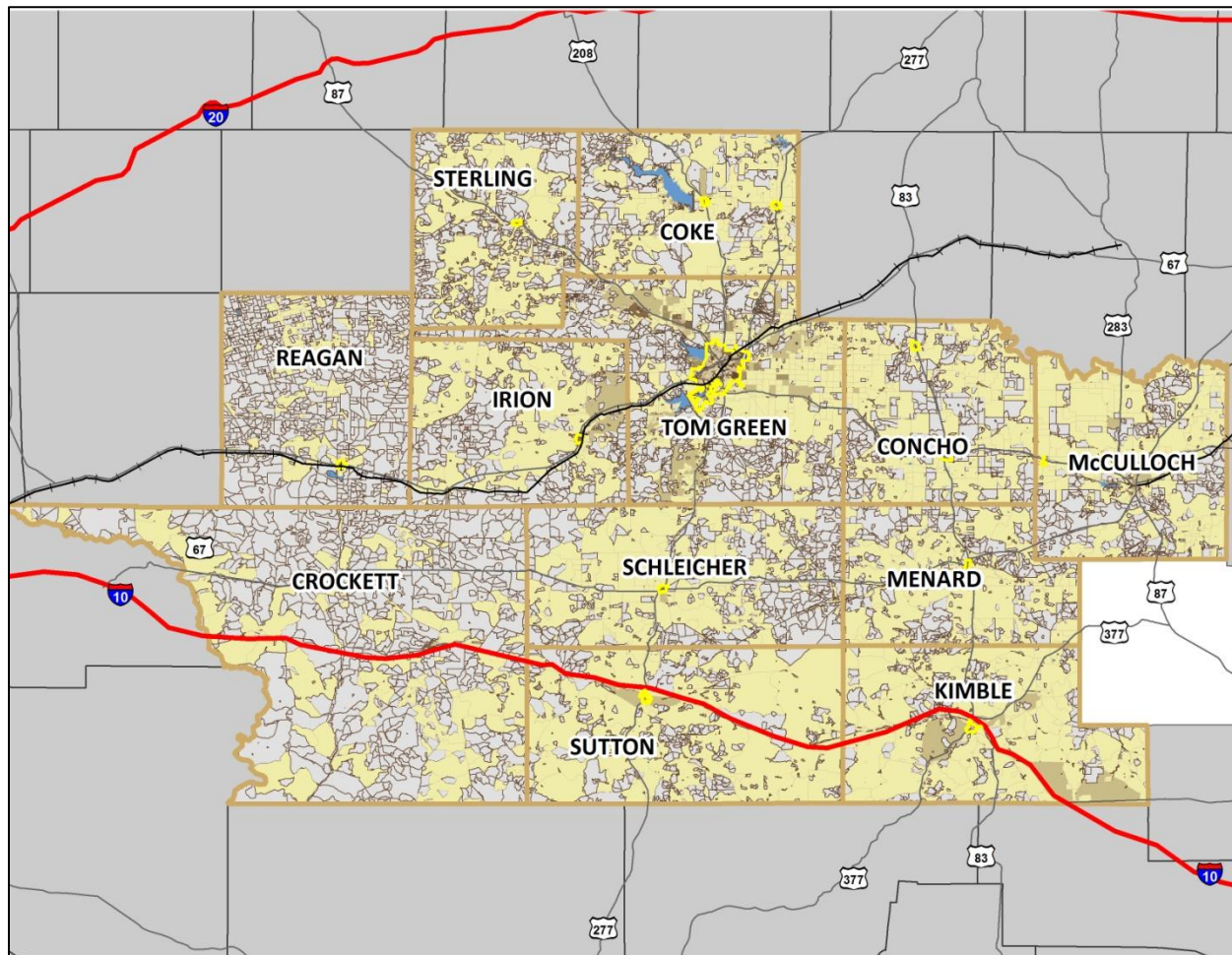
The locations of available georeferenced TRI and Tier 2 listed toxic sites in the CVCOG planning area are shown below in Figure A-4. For fixed site analysis, only toxic sites that have georeferenced data available were analyzed and the circle buffers, 500 and 2,500 meters are assumed in respect to the different levels of impact—immediate (primary) and secondary, are drawn around each hazardous material site.

Figure A-2. Fixed HAZMAT Analysis Locations and Buffers (CVCOG)



For the mobile toxic release analysis, major roads consisting of Interstates, U.S. highways and State highways, along with railroads were chosen as the routes where hazardous materials are most likely to be transported. The analysis buffer along these selected infrastructure elements is the same as that used for fixed site analysis (500 meters and 2,500 meters). The 500-meter and 2,500-meter buffers for the two infrastructure elements that comprise the mobile toxic release hazard: highway and rail are illustrated in Figure A-5. It is worth noting that all known city facilities fall within at least the 2,500-meter secondary impact buffer.

Figure A-5. Mobile HAZMAT Analysis Corridors and Buffers



Extent

From a hazardous material incident, the micro-meteorological effects of the buildings and terrain can alter travel and duration of agents. Shielding in the form of sheltering-in-place can protect people and property from harmful effects. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features can substantially increase the damage from a hazardous material incident. The duration of a hazardous material incident can range from hours to days. Warning time for hazardous material incidents is minimal to none.

Previous Occurrences

No historic incidents have been reported within the past 20 years. Approximately 2,037 hazardous materials facilities are required to report threshold incidents to the Toxic Release Inventory.

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Probability of Future Events

Hazardous materials are transported through all counties within the CVCOG Region using major highways and thoroughfares. The risk of hazardous spills during transport exists and may increase in areas with continued industrial development and major highways. Based on historic event information, the probability of future occurrences is unlikely, with an event possible within the next ten years.

Vulnerability and Impact

The estimated toxic release exposure of people and parcels by jurisdiction for fixed sites using census block data is shown in Table A-6. Primary and secondary impact distances were selected based on guidance from FEMA 426, *Reference Manual to Mitigate Potential Terrorist Attacks Against Buildings* and engineering judgment. Because many sites containing hazardous materials are located in densely populated areas, there are population and structures that could be susceptible to a release from more than one site.

Table A-6. Estimated Exposure of People and Parcels (Fixed Site Toxic Release)⁷

| JURISDICTION | IMMEDIATE IMPACT (500 METERS) | | | SECONDARY IMPACT (2,500 METERS) | | |
|--------------------------|-------------------------------|--------------------------|---------------------------------|---------------------------------|--------------------------|---------------------------------|
| | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) |
| Coke County | 728 | 567 | \$48,844,000 | 2,821 | 2,176 | \$186,989,000 |
| Bronte | 379 | 279 | \$23,133,000 | 1,076 | 643 | \$54,912,000 |
| Robert Lee | 304 | 225 | \$20,294,000 | 1,147 | 980 | \$70,672,000 |
| Uninc. Coke County | 45 | 63 | \$5,417,000 | 598 | 553 | \$61,405,000 |
| Concho County | 124 | 127 | \$9,764,000 | 238 | 288 | \$20,951,000 |
| Eden | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Paint Rock | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Uninc. Concho County | 124 | 127 | \$9,764,000 | 238 | 288 | \$20,951,000 |
| Crockett County | 925 | 405 | \$30,176,000 | 3,827 | 2,322 | \$228,355 |
| (No Incorporated Cities) | | | | | | |
| Irion County | 70 | 48 | \$4,265,000 | 1,387 | 872 | \$84,552,000 |
| Mertzon | 9 | 7 | \$442,000 | 839 | 483 | \$38,576,000 |
| Uninc. Irion County | 61 | 41 | \$3,823,000 | 548 | 389 | \$45,976,000 |
| Kimble County | 190 | 116 | \$14,384,000 | 2,559 | 1,864 | \$143,665,000 |
| Junction | 190 | 116 | \$14,384,000 | 2,494 | 1,790 | \$137,304,000 |

⁷ Source: GIS Analysis

This analysis assumes no climate impacts or changes in terrain.

Appendix A

| JURISDICTION | IMMEDIATE IMPACT (500 METERS) | | | SECONDARY IMPACT (2,500 METERS) | | |
|------------------------------|-------------------------------|--------------------------|---------------------------------|---------------------------------|--------------------------|---------------------------------|
| | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) |
| Uninc. Kimble County | 0 | 0 | \$0 | 65 | 74 | \$6,361,000 |
| McCulloch County | 35 | 20 | \$1,923,000 | 7,952 | 5,062 | \$430,908,000 |
| Melvin | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Uninc. McCulloch County | 35 | 20 | \$1,923,000 | 7,952 | 5,062 | \$430,908,000 |
| Menard County | 585 | 459 | \$28,850,000 | 1,742 | 1,236 | \$80,869,000 |
| Menard | 580 | 444 | \$28,538,000 | 1,653 | 1,150 | \$75,051,000 |
| Uninc. Menard County | 5 | 15 | \$312,000 | 89 | 86 | \$5,818,000 |
| Reagan County | 373 | 230 | \$22,241,000 | 3,216 | 1,995 | \$172,679,000 |
| Big Lake | 331 | 167 | \$18,502,000 | 2,849 | 1,516 | \$146,223,000 |
| Uninc. Reagan County | 42 | 63 | \$3,739,000 | 367 | 479 | \$26,456,000 |
| Schleicher County | 546 | 343 | \$33,288,000 | 2,780 | 1,961 | \$148,472,000 |
| Eldorado | 77 | 34 | \$2,782,000 | 1,951 | 1,403 | \$95,802,000 |
| Uninc. Schleicher County | 469 | 309 | \$30,506,000 | 829 | 558 | \$52,670,000 |
| Sterling County | 122 | 94 | \$12,020,000 | 790 | 588 | \$58,505,000 |
| Sterling City | 0 | 0 | \$0 | 561 | 405 | \$40,764,000 |
| Uninc. Sterling County | 122 | 94 | \$12,020,000 | 229 | 183 | \$17,741,000 |
| Sutton County | 1,200 | 685 | \$62,916,000 | 6,924 | 3,921 | \$378,621,000 |
| Sonora | 1,195 | 681 | \$62,740,000 | 5,663 | 3,161 | \$308,062,000 |
| Uninc. Sutton County | 5 | 4 | \$176,000 | 1,261 | 760 | \$70,559,000 |
| Tom Green County | 4,085 | 2,093 | \$375,152,000 | 101,436 | 44,010 | \$6,191,104,000 |
| San Angelo | 4,034 | 2,067 | \$372,436,000 | 99,407 | 42,879 | \$6,080,118,000 |
| Uninc. Tom Green County | 51 | 26 | \$2,716,000 | 2029 | 1,131 | \$110,986,000 |
| TOTALS FOR STUDY AREA | 8,983 | 5,187 | \$643,823,000 | 135672 | 66295 | \$7,897,543,355 |

**Table A-7. Estimated Exposure of People and Parcels
(Mobile Toxic Release—Highway⁸ and Rail)⁹**

| JURISDICTION | IMMEDIATE IMPACT (500 METERS) | | | SECONDARY IMPACT (2,500 METERS) | | |
|--------------------------|-------------------------------|--------------------------|---------------------------------|---------------------------------|--------------------------|---------------------------------|
| | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) |
| Coke County | 736 | 455 | \$43,644,000 | 1,482 | 940 | \$95,932,000 |
| Bronte | 715 | 427 | \$38,713,000 | 1,076 | 643 | \$54,912,000 |
| Robert Lee | 0 | 0 | \$0 | 0 | 0 | \$0 |
| Uninc. Coke County | 21 | 28 | \$4,931,000 | 406 | 297 | \$41,020,000 |
| Concho County | 2,628 | 1,121 | \$129,228,000 | 3,064 | 1,218 | \$136,276,000 |
| Eden | 215 | 726 | \$90,550,000 | 2,556 | 755 | \$92,364,000 |
| Paint Rock | 2,370 | 177 | \$11,315,000 | 320 | 177 | \$11,315,000 |
| Uninc. Concho County | 43 | 218 | \$27,363,000 | 188 | \$286 | \$32,597,000 |
| Crockett County | 4,998 | 1,298 | \$140,543,000 | 3,384 | 1,395 | \$147,591,000 |
| (No Incorporated Cities) | | | | | | |
| Irion County | 629 | 376 | \$29,368,000 | 1,423 | 861 | \$168,355,000 |
| Mertzson | 536 | 297 | \$22,489,000 | 839 | 483 | \$38,576,000 |
| Uninc. Irion County | 93 | 79 | \$6,879,000 | 584 | 378 | \$129,779,000 |
| Kimble County | 1,715 | 1,158 | \$100,397,000 | 3,248 | 2,462 | \$199,534,000 |
| Junction | 1,530 | 983 | \$88,057,000 | 2,574 | 1,822 | \$141,899,000 |
| Uninc. Kimble County | 185 | 175 | \$12,340,000 | 674 | 640 | \$57,635,000 |
| McCulloch County | 3,594 | 2,407 | \$207,992,000 | 7,050 | 4,540 | \$372,037,000 |
| Melvin | 0 | 1 | \$86,000 | 155 | 102 | \$8,875,000 |
| Uninc. McCulloch County | 3,594 | 2,406 | \$207,906,000 | 6,895 | 4,438 | \$363,162,000 |
| Menard County | 728 | 651 | \$38,702,000 | 1,894 | 1,390 | \$95,392,000 |
| Menard | 689 | 611 | \$36,749,000 | 1,653 | 1,150 | \$75,051,000 |
| Uninc. Menard County | 39 | 40 | \$1,953,000 | 241 | 240 | \$20,341,000 |
| Reagan County | 918 | 597 | \$45,953,000 | 3,001 | 1,642 | \$157,629,000 |
| Big Lake | 907 | 566 | \$44,510,000 | 2,849 | 1516 | \$146,223,000 |
| Uninc. Reagan County | 11 | 31 | \$1,443,000 | 152 | 126 | \$11,406,000 |

⁸ Highways, for the purposes of this analysis, include U.S. Interstates, U.S. highways, State highways, and loops.

⁹ Source: GIS Analysis

* With improved values.

Appendix A

| JURISDICTION | IMMEDIATE IMPACT (500 METERS) | | | SECONDARY IMPACT (2,500 METERS) | | |
|------------------------------|-------------------------------|--------------------------|---------------------------------|---------------------------------|--------------------------|---------------------------------|
| | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) | Number People Exposed | Number Buildings Exposed | Value Of Buildings Exposed (\$) |
| Schleicher County | 1,495 | 1,095 | \$72,988,000 | 2,431 | 1,731 | \$118,986,000 |
| Eldorado | 1,440 | 1,061 | \$70,114,000 | 1,951 | 1,403 | \$95,802,000 |
| Uninc. Schleicher County | 55 | 34 | \$2,874,000 | 480 | 328 | \$23,184,000 |
| Sterling County | 843 | 560 | \$54,883,000 | 1,194 | 770 | \$71,789,000 |
| Sterling City | 785 | 528 | \$52,895,000 | 1,063 | 690 | \$66,795,000 |
| Uninc. Sterling County | 58 | 32 | \$1,988,000 | 131 | 80 | \$4,994,000 |
| Sutton County | 2,047 | 1,165 | \$118,516,000 | 3,546 | 2,003 | \$199,398,000 |
| Sonora | 1,702 | 963 | \$96,355,000 | 2,891 | 1,613 | \$158,154,000 |
| Uninc. Sutton County | 345 | 202 | \$22,161,000 | 655 | 390 | \$41,244,000 |
| Tom Green County | 19,218 | 9,989 | \$1,687,794,000 | 80,286 | 35,330 | \$4,939,055,000 |
| San Angelo | 16,183 | 8,398 | \$1,524,768,000 | 71,324 | 30,808 | \$4,478,493,000 |
| Uninc. Tom Green County | 3,035 | 1,591 | \$163,026,000 | 8,962 | 4,522 | \$460,562,000 |
| TOTALS FOR STUDY AREA | 39,549 | 20,872 | \$2,670,008,000 | 112,003 | 54,282 | \$6,701,974,000 |

Hazardous materials or toxic releases can have a substantial impact. Such events can cause multiple deaths, completely shut down facilities for thirty days or more, and cause more than fifty percent of affected properties to be destroyed or suffer major damage.

APPENDIX B

PLANNING TEAM MEMBERS..... 1
 STAKEHOLDERS..... 2

Planning Team Members

The CVCOG Plan Update was organized using a direct representative model, as the Concho Valley Council of Governments (CVCOG) acted as direct representative or Advisory Committee for participating jurisdictions in this effort. At the beginning of the process CVCOG sent notices to jurisdictions asking for input and participation in the process. The following organizations¹ responded to the request and participated throughout the planning process.

Table B-1. Advisory Committee Planning Team Members – Organization and Title

| ORGANIZATION | TITLE |
|--|--|
| Concho Valley Council of Governments Staff | Homeland Security/Regional Services |
| Concho Valley Council of Governments Staff | Homeland Security Planner |
| Concho Valley Council of Governments Staff | Assistant Emergency Preparedness Coordinator |

Table B-2. Team Members – Organization and Title

| ORGANIZATION | TITLE |
|--------------------------|----------------|
| Coke County | County Judge |
| Town of Bronte | City Secretary |
| City of Robert Lee | City Secretary |
| Concho County | County Judge |
| City of Eden | Police Chief |
| Town of Paint Rock | City Manager |
| Crockett County | County Judge |
| (No Incorporated Cities) | |
| Irion County | County Judge |

¹ Titles are given rather than names as the person holding the title in the respective organization will be responsible for continual maintenance of the Update, regardless of whether that same person initially held that role in 2005.

Appendix B

| ORGANIZATION | TITLE |
|--------------------------|-----------------------|
| City of Mertzon | City Manager |
| Kimble County | County Judge |
| City of Junction | County Judge |
| McCulloch County | County Judge |
| Town of Melvin | City Council Member |
| Menard County | OEM |
| City of Menard | City Administrator |
| Reagan County | County Sheriff |
| City of Big Lake | City Manager |
| Schleicher County | County Judge |
| City of Eldorado | City Secretary |
| Sterling County | County Judge |
| City of Sterling City | Public Works Director |
| Sutton County | City Manager |
| City of Sonora | City Manager |
| Tom Green County | EMC |
| City of San Angelo | Stormwater Engineer |

Stakeholders

The following groups listed in Table B-3 were invited to stakeholder meetings, public meetings and workshops throughout the planning process and include: non-profit organizations; private businesses; hospitals; and school districts. For a list of attendance at meetings, please see Appendix E².

Table B-3. Businesses and Organizations

| |
|--|
| American Red Cross |
| Angelo State University |
| Bronte ISD |
| Concho Valley Economic Development District, Inc |
| Eden Consolidated ISD |
| Eldorado Headstart |
| First National Bank – Mertzon |

² Information contained in Appendix E is exempt from public release under the Freedom of Information Act (FOIA).

Appendix B

| |
|----------------------------------|
| Irion ISD |
| San Angelo ISD |
| Schleicher County Medical Center |
| Sonora ISD |
| TDEM RLO |

APPENDIX C

| | |
|----------------------------|---|
| OVERVIEW..... | 1 |
| PUBLIC SURVEY RESULTS..... | 2 |

Overview

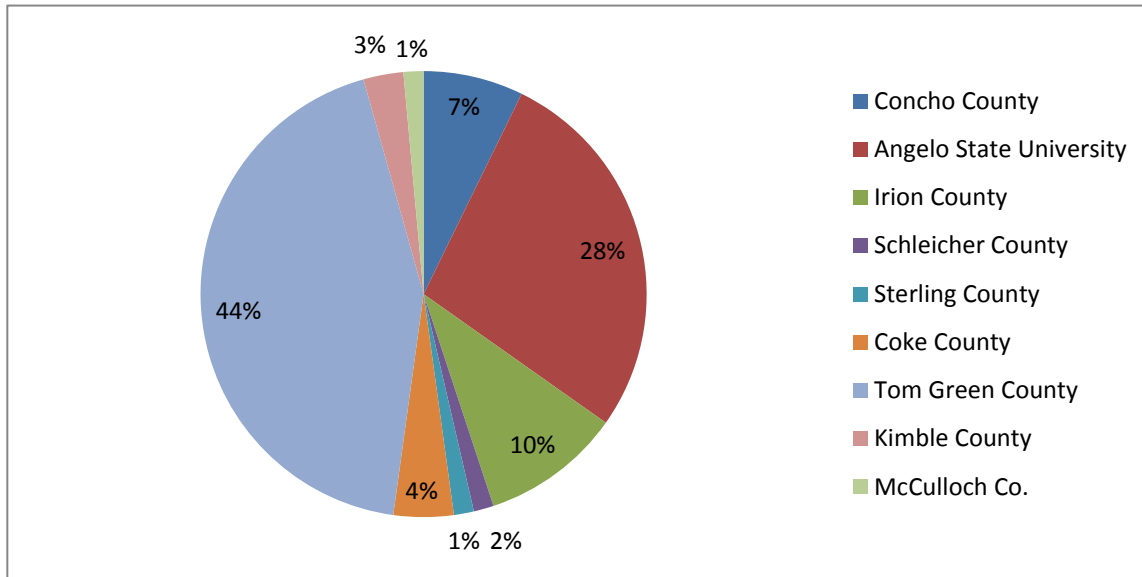
The Concho Valley Council of Governments (CVCOG) prepared public surveys that asked a wide range of questions concerning the opinions of the public regarding natural and man-caused hazards. This fifteen-question survey was made available on the CVCOG website and websites throughout the CVCOG County Region. This survey link was also distributed at public meetings and stakeholder events throughout the planning process.

A total of 72 surveys were collected, the results of which are analyzed in this Appendix. The purpose of the survey was twofold: 1) to solicit public input during the planning process and 2) to help the city to identify any potential actions or problem areas.

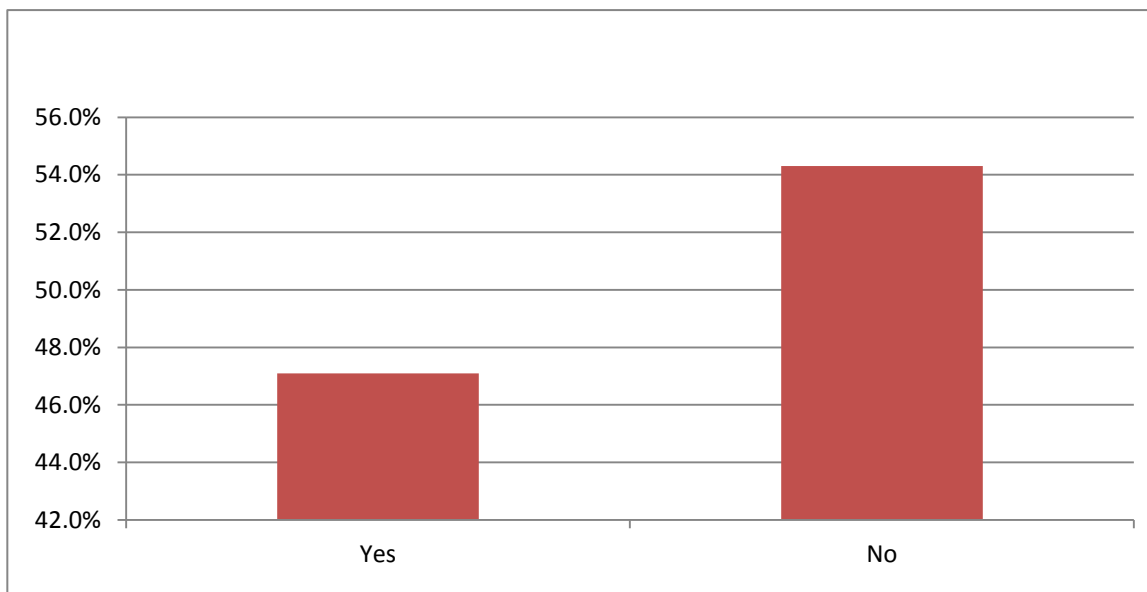
Survey results are depicted on the following pages, showing the percentage of responses for each answer. For questions that did not provide a multiple choice answer, or that required an explanation, comments are summarized where similar.

Public Survey Results

1. Please state the jurisdiction (city and county) where you reside.

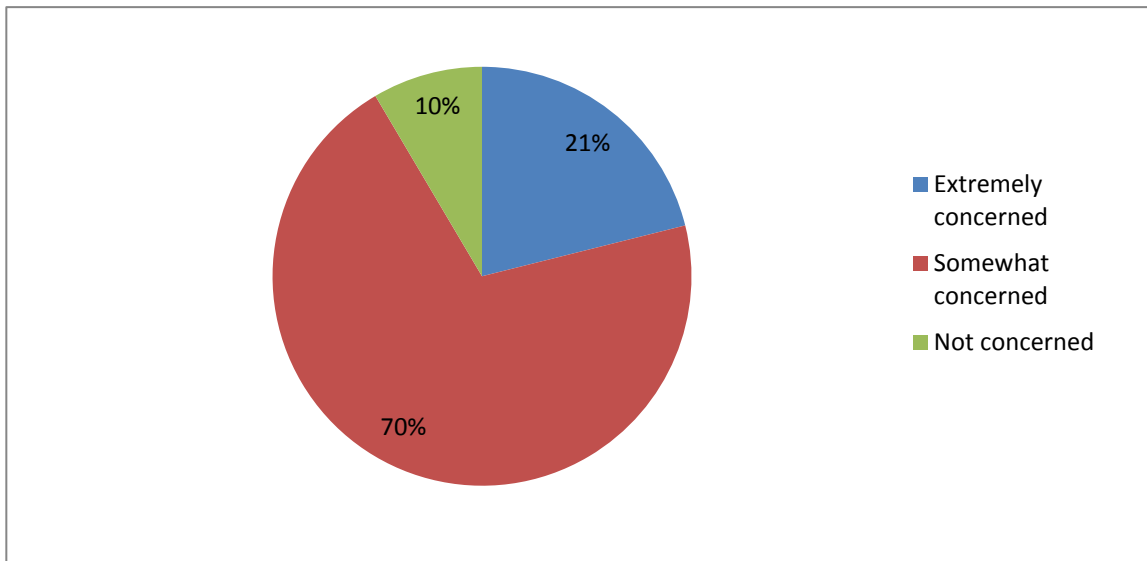


2. Have you ever experienced or been impacted by a disaster?

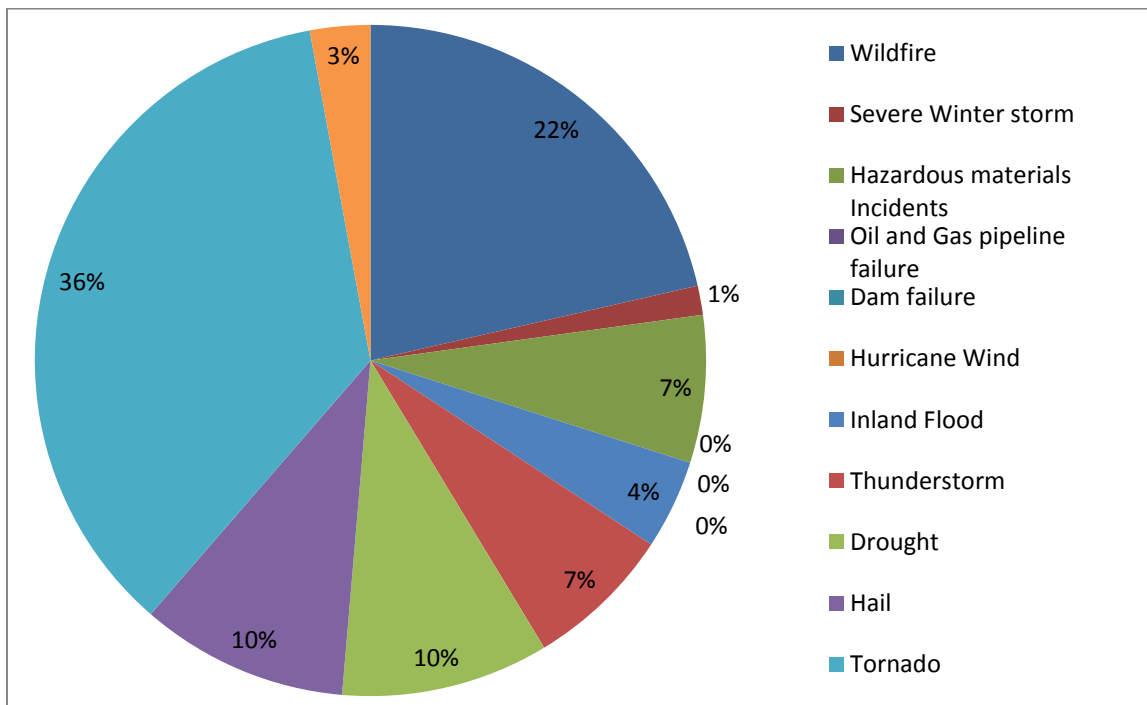


Appendix C

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

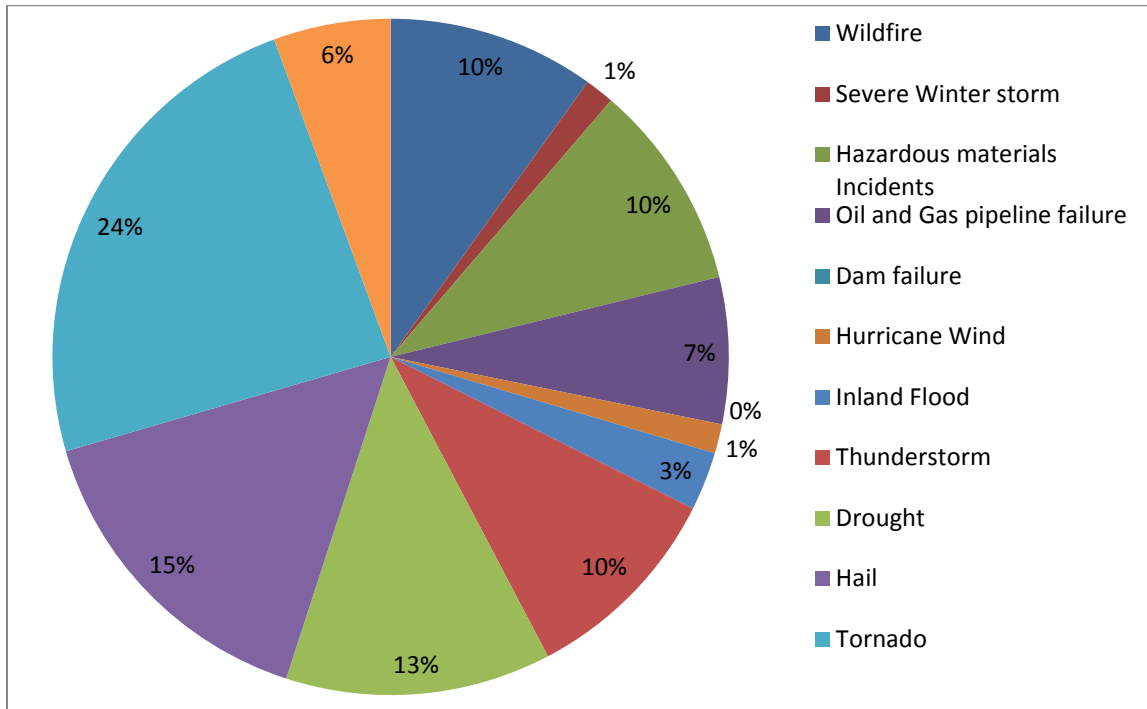


4. Please select the one hazard you think is the highest threat to your neighborhood:

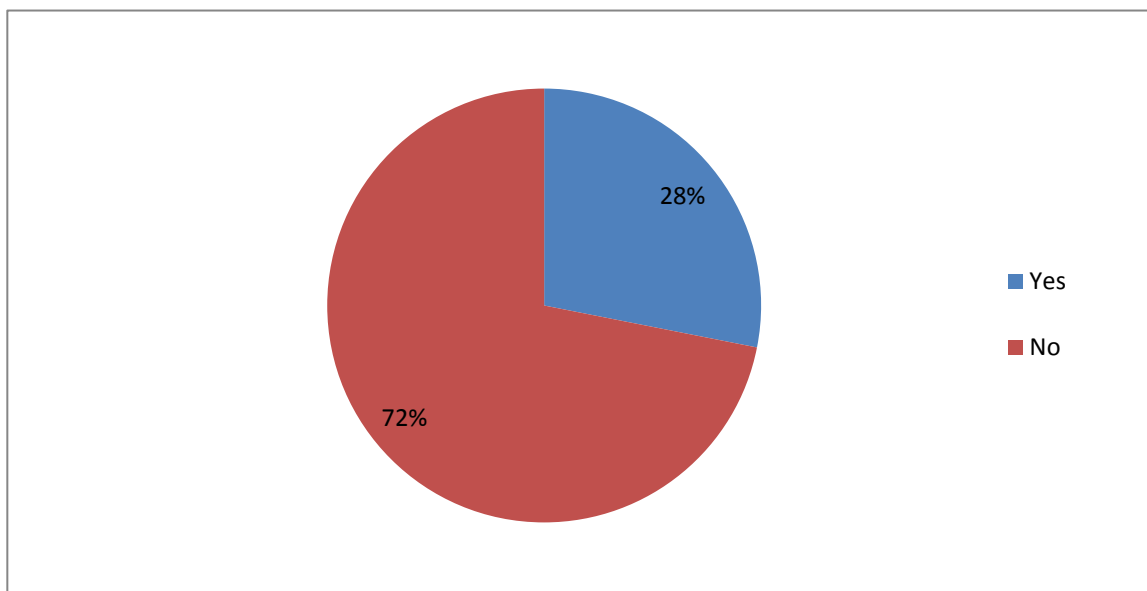


Appendix C

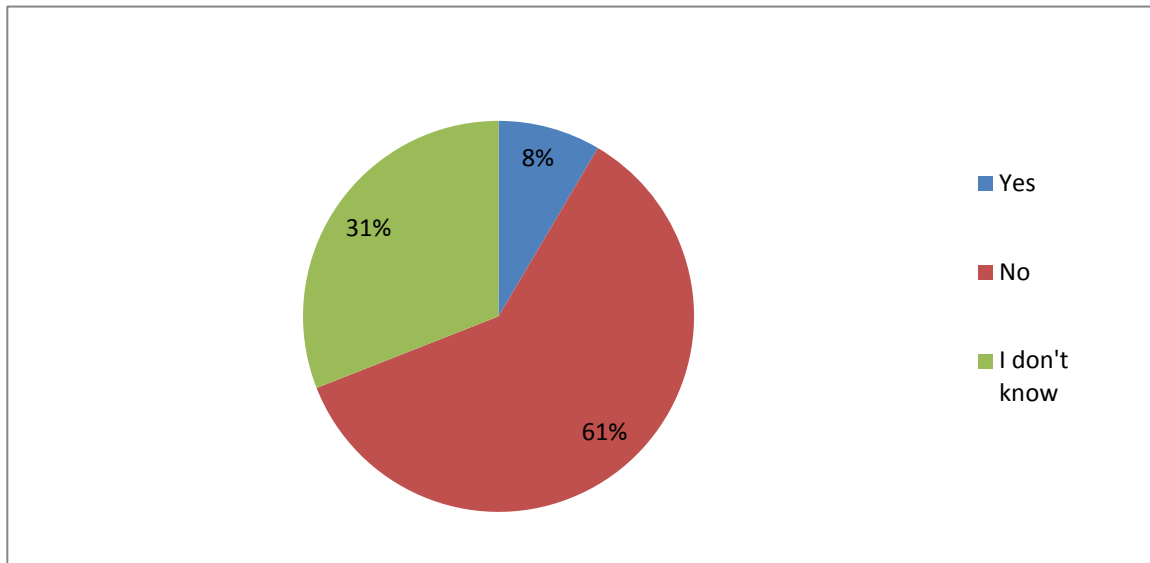
5. Please select the one hazard you think is the second highest threat to your neighborhood:



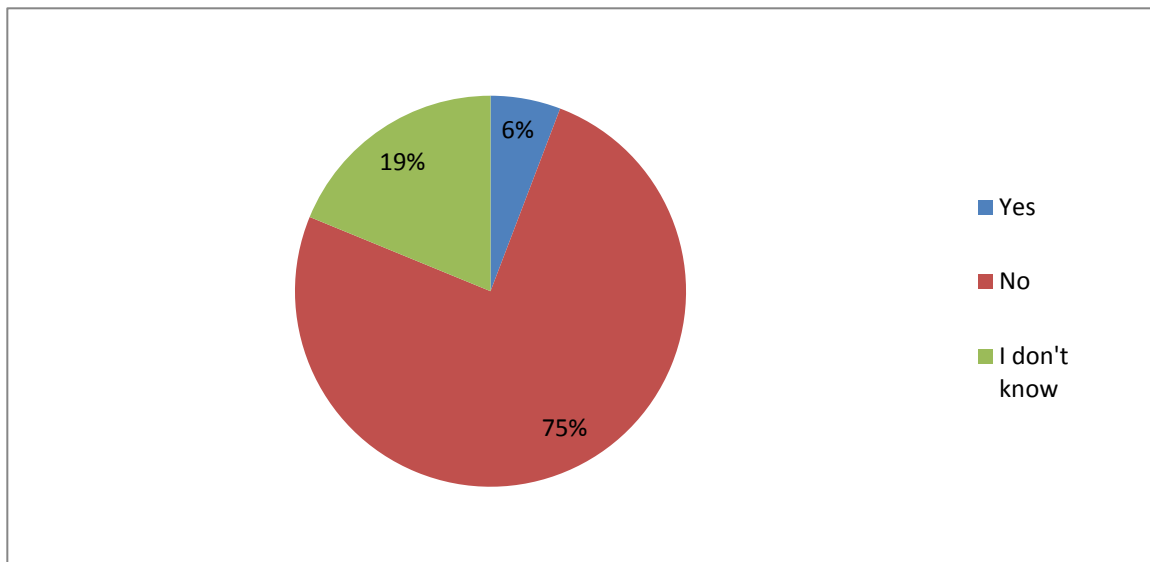
6. Is there another hazard not listed above that you think is a wide-scale threat to your neighborhood?



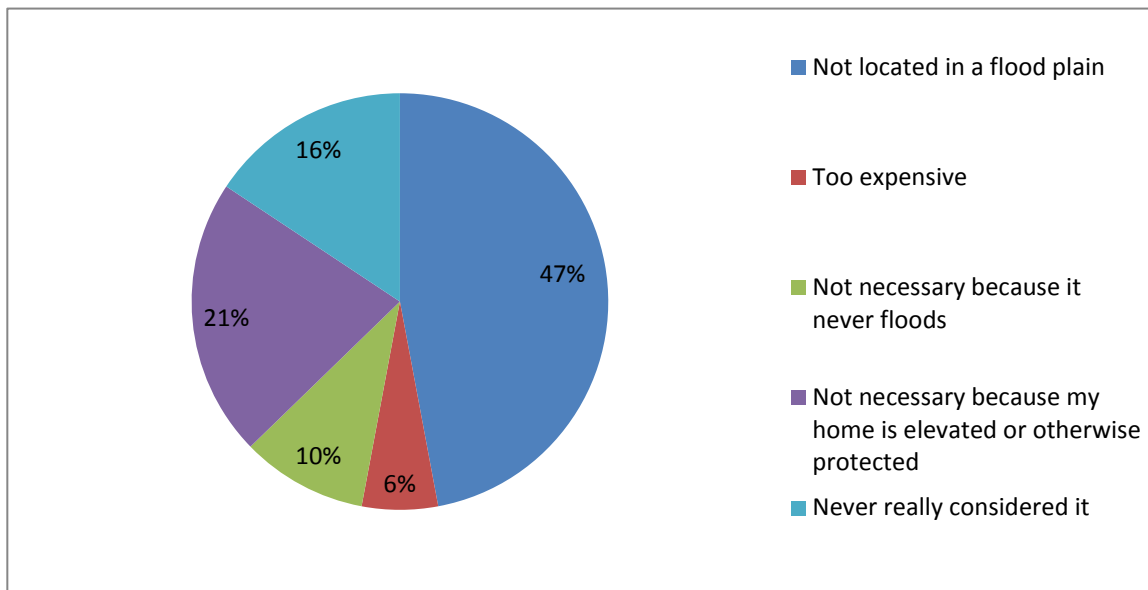
7. Is your home located in a floodplain?



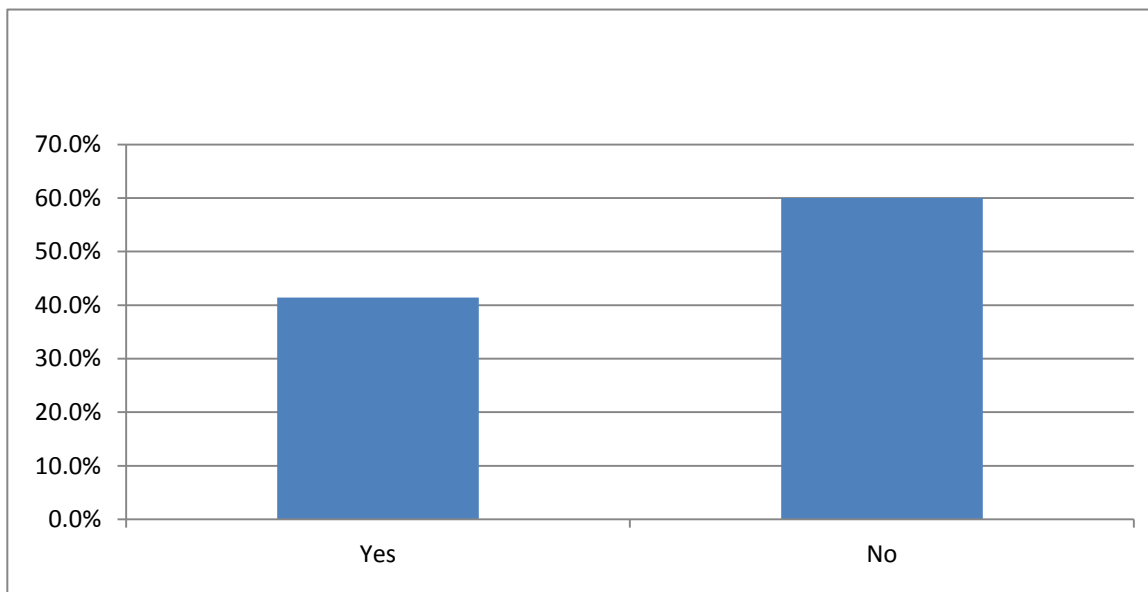
8. Do you have flood insurance?



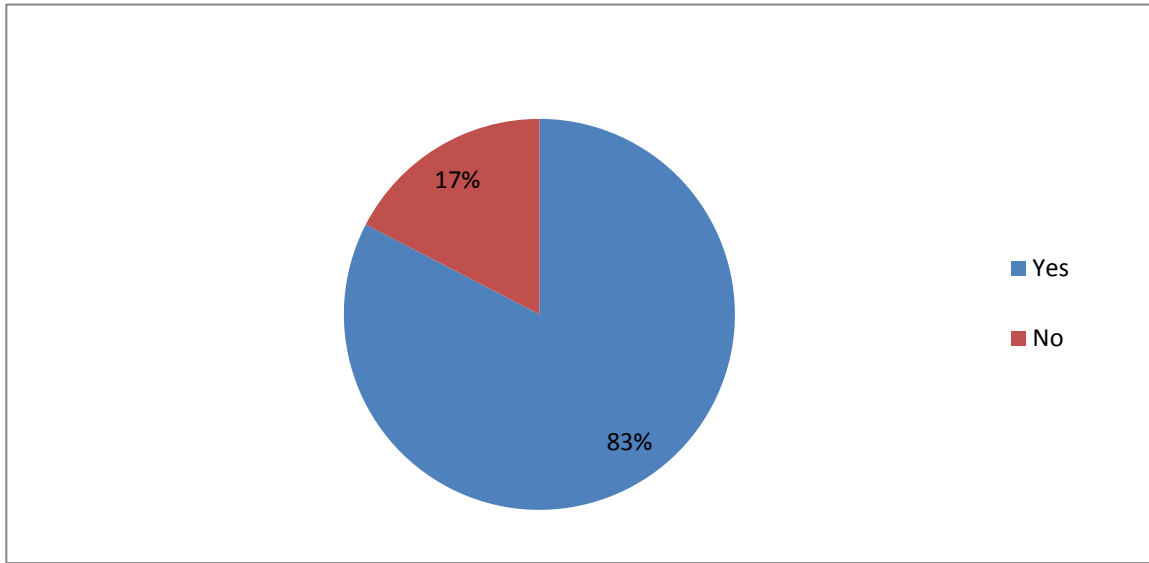
9. If you do not have flood insurance, why not?



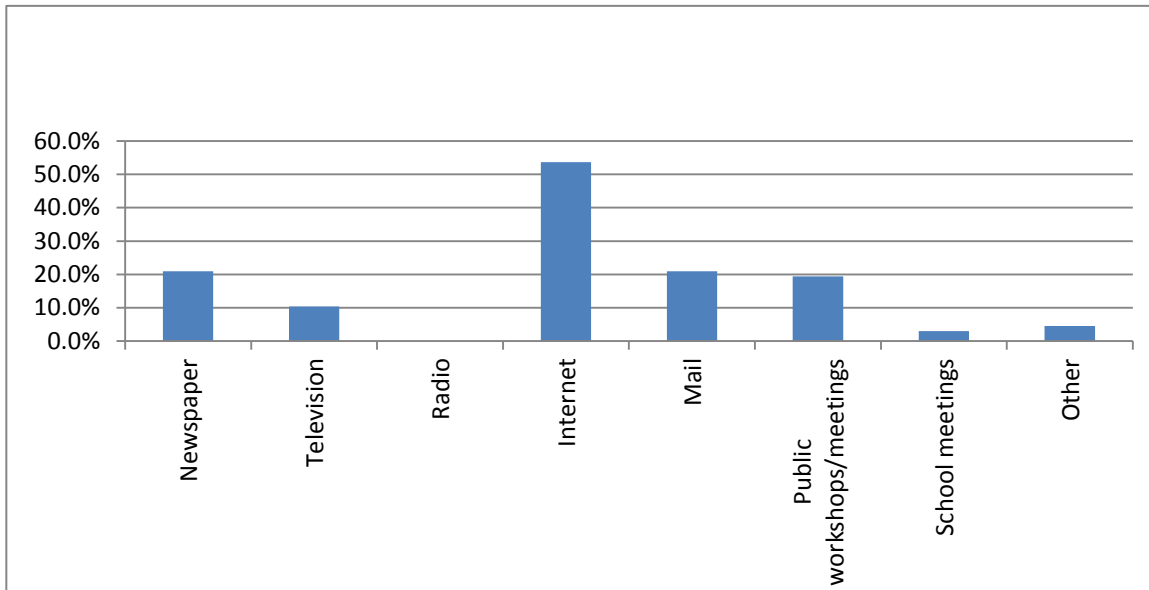
10. Have you taken any actions to make your home or neighborhood more resistant to hazards?



11. Are you interested in making your home or neighborhood more resistant to hazards?

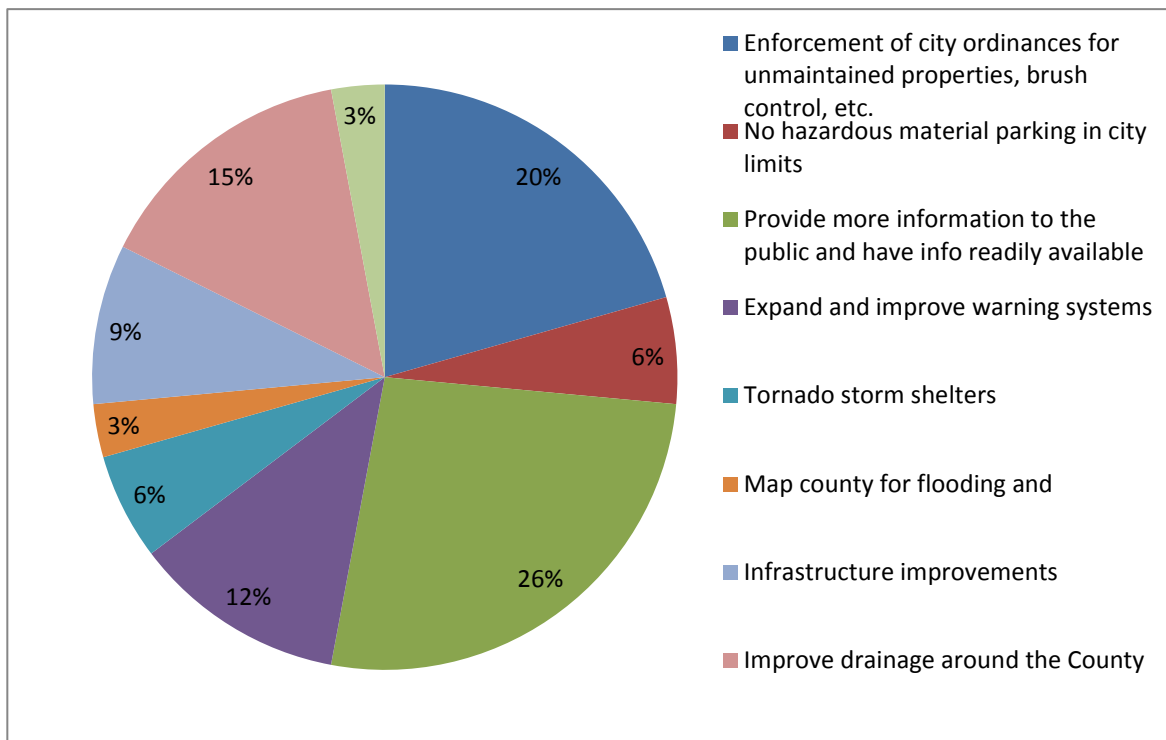


12. What is the most effective way for you to receive information about how to make your home and neighborhood more resistant to hazards?

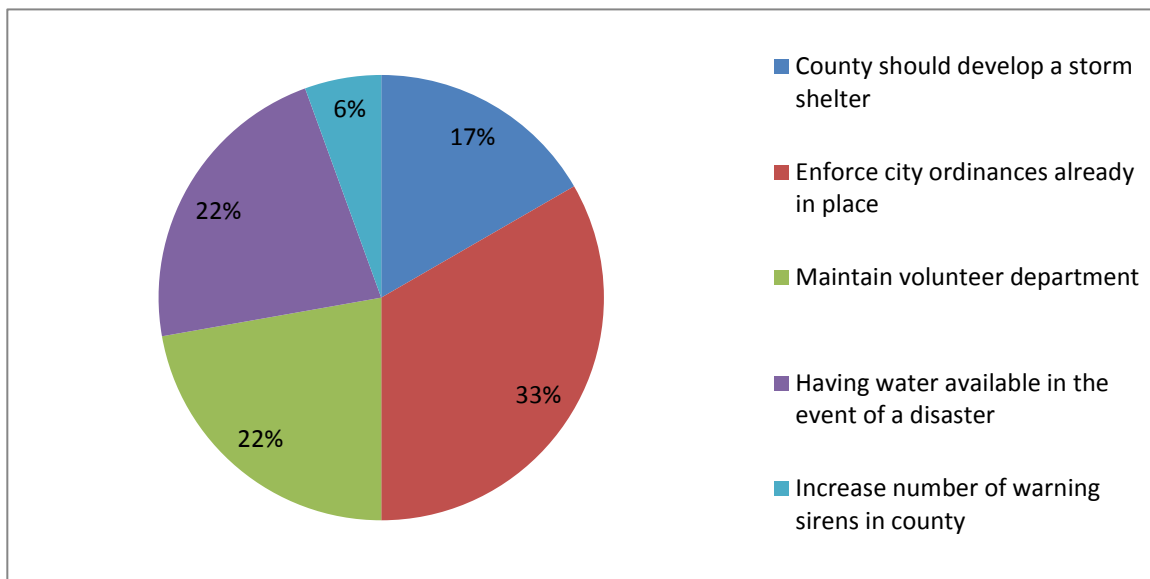


Appendix C

13. In your opinion, what are some steps your local government could take to reduce or eliminate the risk of future hazard damages in your neighborhood?

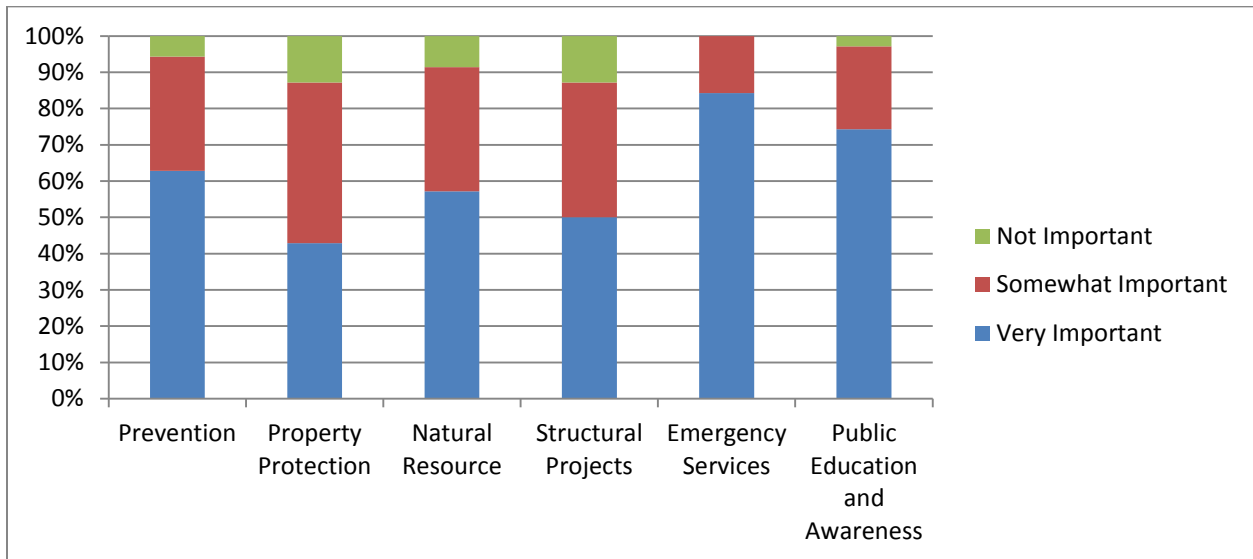


14. Are there any other issues regarding the reduction of risk and loss associated with hazards or disasters in the community that you think are important?



Appendix C

15. A number of community-wide activities can reduce our risk from hazards. In general, these activities fall into one of the following six broad categories. Please tell us how important you think each one is for your community to consider pursuing.



Prevention - Administrative or regulatory actions that influence the way land is developed and buildings are built. Examples include planning and zoning, building codes, open space preservation, and floodplain regulations.

Property Protection - Actions that involve the modification of existing buildings to protect them from a hazard or removal from the hazard area. Examples include acquisition, relocation, elevation, structural retrofits, and storm shutters.

Natural Resource Protection - Actions that in addition to minimizing hazard losses also preserve or restore the functions of natural systems. Examples include: floodplain protection, habitat preservation, slope stabilization, riparian buffers, and forest management.

Structural Projects - Actions intended to lessen the impact of a hazard by modifying the natural progression of the hazard. Examples include dams, levees, seawalls detention / retention basins, channel modification, retaining walls and storm sewers.

Emergency Services - Actions that protect people and property during and immediately after a hazard event. Examples include warning systems, evacuation planning, emergency response training, and protection of critical facilities or systems.

Public Education and Awareness - Actions to inform citizens about hazards and techniques they can use to protect themselves and their property. Examples include outreach projects, school education programs, library materials and demonstration events.

APPENDIX D

TOXIC SITES..... 1
CRITICAL FACILITIES 27

This Appendix is **For Official Use Only (FOUO)** and may be exempt from public release under the Freedom of Information Act (FOIA).

Toxic Sites

Listing of Toxic Release Inventory (TRI) Toxic Sites in CVCOG

| COUNTY | JURISDICTION | OWNER NAME | FACILITY NAME | FACILITY ADDRESS |
|------------|--------------|---------------------------------|----------------------------|-------------------|
| McCulloch | Brady | Hexion Specialty Chemicals Inc. | Hexion Specialty Chemicals | 45 Acfrac Rd |
| Schleicher | Eldorado | N/A | G&G Fiberglass | 250 County Rd 100 |
| Sutton | Sonora | United Fuel & Energy Corp | United Fuel & Energy Corp | 1505 W Crockett |
| Tom Green | San Angelo | Johnson & Johnson Inc. | Ethicon Inc. | 3348 Pulliam St |
| Tom Green | San Angelo | N/A | Hirschfeld Steel Group LP | 617 Art St |

Listing of Tier-2 Toxic Sites in CVCOG

| COUNTY | JURISDICTION | FACILITY NAME |
|--------|--------------|---|
| Coke | Bronte | Butner |
| Coke | Bronte | Ingram – Sanco/ Bronte |
| Coke | Bronte | Jameson Gas Processing, LP – Ft. Chadbourne Booster |
| Coke | Bronte | Jameson Gas Processing, LP – Gina Booster |
| Coke | Bronte | TNC – Oak Creek Power Station Substation |
| Coke | Robert Lee | Ingram – Sanco/Robert Lee |
| Coke | Robert Lee | Jameson Gas Processing, LP – Foster Price Booster |
| Coke | Robert Lee | Jameson Gas Processing, LP – IAB Booster |
| Coke | Robert Lee | Robert Lee – Truck Station |
| Coke | Robert Lee | Schuch Gathering System – Byrd Operating Co. |
| Coke | Robert Lee | Willcockson # 1 |
| Coke | Rural | Arledge Field |
| Concho | Eden | Agaritta Unit (Concho) |
| Concho | Eden | Concho Propane Company #3 |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|----------|--------------|---|
| Concho | Eden | Hoover Lease |
| Concho | Eden | Jacoby 'B' Comm Btty (Concho) |
| Concho | Eden | Leifester Lease |
| Concho | Eden | Lovelace Lease |
| Concho | Eden | Lubke Lease |
| Concho | Eden | TxDOT-San Angelo-Eden Maintenance Facility |
| Concho | Eden | Valentine & McMurtrey Lease |
| Concho | Eden | Willie Concho Lease |
| Concho | Millersview | Hartgrove #1 Lease |
| Concho | Paint Rock | Fritz Lease |
| Concho | Paint Rock | Vera "A" Lease |
| Concho | Paint Rock | Vera "A" #2 Lease |
| Concho | Paint Rock | Vera Lease |
| Crockett | Big Lake | University 2A, 2H, 2I, 2J |
| Crockett | Big Lake | University 2B |
| Crockett | Big Lake | University 2E, 2F, 2G |
| Crockett | Big Lake | University 2K, 2L, 2M |
| Crockett | Big Lake | University S |
| Crockett | Big Lake | Vanco Oil & Gas Corp – University "I" |
| Crockett | Bullard | Sheep Mountain |
| Crockett | Houston | Walter Oil & Gas Corporation – Elliott |
| Crockett | Houston | Walter Oil & Gas Corporation – Elliott M2H – 1 |
| Crockett | Iraan | J.H. Tippet E Lease – Byrd Operating Co. |
| Crockett | Iraan | J.H. Tippet E NCT C Lease – Byrd Operating Co. |
| Crockett | Iraan | J.H. Tippet E NCT-B Lease – Byrd Operating Co. |
| Crockett | Iraan | Olsen Energy, Inc. – J.H. Tippet J NCT – B Lease |
| Crockett | Iraan | State School Board MF Lease – Byrd Operating Co. |
| Crockett | Iraan | Vanco Oil & Gas Corp – Chambers County School Lands #20 |
| Crockett | Iraan | Vanco Oil & Gas Corp – Halff |
| Crockett | Iraan | Vanco Oil & Gas Corp – Owens |
| Crockett | Iraan | Vanco Oil & Gas Corp – Todd |
| Crockett | McCamey | TNC – Rio Pecos Plant Substation |
| Crockett | Midland | Childress Ranch Facility |
| Crockett | Midland | Devon Energy – Hunt – Baggett |
| Crockett | Midland | Devon Energy – Hunt – Baggett West |
| Crockett | Midland | Devon Energy – Ozona Field |
| Crockett | Midland | Devon Energy – Ozona Northeast |
| Crockett | Midland | Henderson Facility |
| Crockett | Midland | Nan D. Grimmer Facility |
| Crockett | Midland | Sealy Hutchins Facility |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|----------|--------------|--|
| Crockett | Midland | SPGC Facility |
| Crockett | Midland | Tabasco 13 #1 |
| Crockett | Midland | Todd 7 WX #1 |
| Crockett | Midland | Wallen Helbing Facility |
| Crockett | Midland | Weatherly Pryor Facility |
| Crockett | Ozona | Block 38 Univ. Lands Prod. Facility (Acq.12-01-08) |
| Crockett | Ozona | Childress |
| Crockett | Ozona | Crockett 2 |
| Crockett | Ozona | DGP Midway Lane Gas Plant |
| Crockett | Ozona | DGP Midway Lane Gas Plant – Station 36 |
| Crockett | Ozona | DGP Midway Lane Gas Plant – Station 75 |
| Crockett | Ozona | DGP Midway Lane Gas Plant – Station 81 |
| Crockett | Ozona | DGP Midway Lane Gas Plant – Station 86 |
| Crockett | Ozona | DGP Midway Lane Gas Plant – Station 88 |
| Crockett | Ozona | DGP Midway Lane Gas Plant – Todd Compressor Station |
| Crockett | Ozona | Feagan Canon Ranch |
| Crockett | Ozona | H.E. Meadows & Ozona Gas Unit |
| Crockett | Ozona | Henderson Compressor Station |
| Crockett | Ozona | Howard A #1 |
| Crockett | Ozona | Locin Oil Corporation – CC Montgomery 6D2 |
| Crockett | Ozona | Miller Ranch C 1 |
| Crockett | Ozona | Nabors Well Services Ltd. |
| Crockett | Ozona | Ozona Compressor Station-Energy Transfer Co. |
| Crockett | Ozona | Ozona Station 200 |
| Crockett | Ozona | Ozona Station 300 |
| Crockett | Ozona | Ozona Station 500 |
| Crockett | Ozona | Ozona Station 600B |
| Crockett | Ozona | Ozona Station 800 |
| Crockett | Ozona | Ozona Station 900 |
| Crockett | Ozona | Ozona Station 1100 |
| Crockett | Ozona | Ozona Station 1600 |
| Crockett | Ozona | Ozona Station 2400 |
| Crockett | Ozona | Ozona Station 2600 |
| Crockett | Ozona | Pandale |
| Crockett | Ozona | Pierce 4B #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Crockett | Ozona | Range Production Company – Ozona (Canyon Sand) Field |
| Crockett | Ozona | Range Production Company – Refoil Field (7C) |
| Crockett | Ozona | SW Ozona Gas Plant |
| Crockett | Ozona | T D Williams |
| Crockett | Ozona | TNC-Friend Ranch Substation |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|----------|--------------|--|
| Crockett | Ozona | Todd Ranch |
| Crockett | Ozona | Todd Ranch SA |
| Crockett | Ozona | Turkey Roost |
| Crockett | Ozona | Vanco Oil & Gas Corp – Meadows |
| Crockett | Ozona | Vanco Oil & Gas Corp – University |
| Crockett | Ozona | Vernon E. Faulconer, Inc. – Ozona Field |
| Crockett | Ozona | West Aldwell |
| Crockett | Ozona | Wilkins |
| Crockett | Ozona | Williams GU #2 (closest to CTB) |
| Crockett | Rankin | Double Take #1 |
| Crockett | Rural | Ozona (Canyon Sand) |
| Crockett | Sonora | Whitehead Crocket |
| Irion | Barnharat | DGP – Irion County Gas Plant |
| Irion | Barnharat | DGP – Irion County Gas Plant – Barnhart Compressor Station |
| Irion | Barnharat | Linthicum 24 |
| Irion | Barnharat | Linthicum 1223 |
| Irion | Barnharat | University Lease |
| Irion | Big Lake | Tres Hombres #1 |
| Irion | Mertzson | Brooks 10 |
| Irion | Mertzson | Brooks 11 |
| Irion | Mertzson | Brooks 17 |
| Irion | Mertzson | Brooks A |
| Irion | Mertzson | Brooks A 3 |
| Irion | Mertzson | Brooks A 5 |
| Irion | Mertzson | Brooks E 1 |
| Irion | Mertzson | Carter |
| Irion | Mertzson | Concho #1 & #2 Lease |
| Irion | Mertzson | Crawford 1230 #2 |
| Irion | Mertzson | Crawford 1230 #3 |
| Irion | Mertzson | Crawford 1230 #1 Lease & Crawford 1230 #4 Lease Comingled |
| Irion | Mertzson | Delong |
| Irion | Mertzson | Hoyt 1 Battery |
| Irion | Mertzson | Hoyt 2 Battery |
| Irion | Mertzson | Magruder "37" #2 |
| Irion | Mertzson | Nini #1 Lease |
| Irion | Mertzson | Parks #1 Lease |
| Irion | Mertzson | Patton 1 |
| Irion | Mertzson | Pearl A. Williams "A" |
| Irion | Mertzson | Pearl Williams |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|--------|--------------|--|
| Irion | Mertzon | Phillips Trans-Continental |
| Irion | Mertzon | Salt House #1 & #2 Lease |
| Irion | Mertzon | Salt House 3047 #1 Lease |
| Irion | Mertzon | Scottish Rite A-1 |
| Irion | Mertzon | Sheen "8" #1 |
| Irion | Mertzon | Sheen "8" #2 |
| Irion | Mertzon | Sugg-Farmer & Sugg Farmer A1,2,3 Leases Comingled |
| Irion | Mertzon | Targa Texas Field Services LP – Booster 8 Compressor Station |
| Irion | Mertzon | Tweedy A 1 |
| Irion | Mertzon | Tweedy A 2 |
| Irion | Mertzon | Tweedy A 6 |
| Irion | Mertzon | Tweedy B |
| Irion | Mertzon | Williams "1203" |
| Irion | Mertzon | Winterbotham |
| Irion | Mertzon | Winterbotham "3" |
| Irion | Mertzon | Winterbotham "A" |
| Irion | Mertzon | Winterbotham "B" |
| Irion | Mertzon | Winterbotham "D" |
| Irion | Mertzon | Winterbotham "E" #5 |
| Irion | Mertzon | Winterbotham 2 |
| Irion | Mertzon | Winterbotham 4A |
| Irion | Mertzon | Winterbotham 5 |
| Irion | Mertzon | Winterbotham 6 |
| Irion | Mertzon | Winterbotham A 2 |
| Irion | Mertzon | Winterbotham B 1 |
| Irion | Mertzon | Winterbotham B 3 |
| Irion | Mertzon | Winterbotham B 6 |
| Irion | Mertzon | Winterbotham C 2 |
| Irion | Mertzon | Winterbotham D 2 |
| Irion | Mertzon | Winterbotham F 1 |
| Irion | Mertzon | Winterbotham F 2 |
| Irion | Mertzon | Winterbotham F 3 |
| Irion | Mertzon | Winterbotham I 2 |
| Irion | Mertzon | Winterbotham J 1 |
| Irion | Mertzon | Winterbotham J 4 |
| Kimble | Harper | National Gypsum |
| Kimble | Junction | Clint Smith Distributors |
| Kimble | Junction | Grayden Industries, Inc. |
| Kimble | Junction | Junction Compressor Station – Energy Transfer Co. |
| Kimble | Junction | MB Propane, LLC dba MB Gas |

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| COUNTY | JURISDICTION | FACILITY NAME |
|-----------|--------------|--|
| Kimble | Junction | TxDOT – San Angelo – Junction Maintenance Facility |
| Kimble | Junction | Verizon Junction CO (TX5141001) |
| McCulloch | Brady | Brady Butane Co Inc. – Plant Storage |
| McCulloch | Brady | Brady Butane Co Inc. – Main Office |
| McCulloch | Brady | Carlson Lease (RRC #13535) |
| McCulloch | Brady | G&RG, Inc. |
| McCulloch | Brady | Hexion Specialty Chemicals, Inc. |
| McCulloch | Brady | Speck Lease (RRC #13649) |
| McCulloch | Brady | TxDOT – Brownwood – McCulloch County Maintenance Remote Stockpile #1 |
| McCulloch | Brady | Unimin Brady Rail Loadout Facility |
| McCulloch | Brady | White Estate B Lease (13848) |
| McCulloch | Voca | Proppant Specialists LLC |
| Menard | Menard | City of Menard Wastewater Treatment Plant |
| Menard | Menard | City of Menard Water Plant |
| Menard | Menard | TNC – Yellowjacket Substation |
| Menard | Menard | TxDOT – San Angelo – Menard Maintenance Facility |
| Reagan | Big Lake | Albert Schultz |
| Reagan | Big Lake | Aldwell 37 |
| Reagan | Big Lake | Balinese #1 |
| Reagan | Big Lake | Ball PMTX |
| Reagan | Big Lake | Barkley #2 |
| Reagan | Big Lake | Basic Energy Services Permian Region 1216 - University SWD |
| Reagan | Big Lake | Bird |
| Reagan | Big Lake | Bird 39/40 |
| Reagan | Big Lake | Boyd 7 |
| Reagan | Big Lake | Boyd A |
| Reagan | Big Lake | Cauble |
| Reagan | Big Lake | Coates A #5 |
| Reagan | Big Lake | Coates B #2 |
| Reagan | Big Lake | Coates B #6 |
| Reagan | Big Lake | Coates Ranch PMTX |
| Reagan | Big Lake | Cook, P.W. |
| Reagan | Big Lake | Cope Lease |
| Reagan | Big Lake | Crews A #3 |
| Reagan | Big Lake | DGP – Big Lake Gas Plant – Texon Compressor Station |
| Reagan | Big Lake | DGP – Stiles Gas Plant |
| Reagan | Big Lake | Douglas 22 |
| Reagan | Big Lake | Douglas 27 – 34 |
| Reagan | Big Lake | Douglas 27A |

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| COUNTY | JURISDICTION | FACILITY NAME |
|--------|--------------|-------------------------|
| Reagan | Big Lake | Douglas 27AA |
| Reagan | Big Lake | Douglas 28 |
| Reagan | Big Lake | Douglas PMTX |
| Reagan | Big Lake | Fandango #1 |
| Reagan | Big Lake | Greer #1 |
| Reagan | Big Lake | Greer 20 |
| Reagan | Big Lake | Gunter Lease |
| Reagan | Big Lake | HABY 7 |
| Reagan | Big Lake | HAM 3 |
| Reagan | Big Lake | Ham Battery No. 2 Lease |
| Reagan | Big Lake | Hanley Station PMTX |
| Reagan | Big Lake | Haralson #3 |
| Reagan | Big Lake | Haralson #4 |
| Reagan | Big Lake | Harris, R.E. |
| Reagan | Big Lake | Highland Main Transfer |
| Reagan | Big Lake | Highland SWD #1 |
| Reagan | Big Lake | Hughes "22" A |
| Reagan | Big Lake | Hughes Alpine West 18 |
| Reagan | Big Lake | Hughes Alpine West 19 |
| Reagan | Big Lake | Hughes Alpine West 22 |
| Reagan | Big Lake | Hughes Alpine West 28 |
| Reagan | Big Lake | Hughes E |
| Reagan | Big Lake | Hunt 13 |
| Reagan | Big Lake | Hunt 15 |
| Reagan | Big Lake | Hunt 17 |
| Reagan | Big Lake | INCA – Carr Lease |
| Reagan | Big Lake | INCA – Parrish Lease |
| Reagan | Big Lake | J.L. Watkins Lease |
| Reagan | Big Lake | Jackson A #2 |
| Reagan | Big Lake | Jackson B #2 |
| Reagan | Big Lake | John O. Carr Lease |
| Reagan | Big Lake | Julie |
| Reagan | Big Lake | Kerr 4 |
| Reagan | Big Lake | Kewanee #1 |
| Reagan | Big Lake | Kile #5 |
| Reagan | Big Lake | Lake B #2 |
| Reagan | Big Lake | Leeson |
| Reagan | Big Lake | Lucy Lindsay |
| Reagan | Big Lake | Malone 43 |
| Reagan | Big Lake | Malone 44 |
| Reagan | Big Lake | Malone A #3 |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|--------|--------------|---------------------------|
| Reagan | Big Lake | Malone B #1 |
| Reagan | Big Lake | Malone B #8 |
| Reagan | Big Lake | Malone B #9 |
| Reagan | Big Lake | Malone D #1 |
| Reagan | Big Lake | Malone D #3 |
| Reagan | Big Lake | Marathon #1 |
| Reagan | Big Lake | Marathon #10 |
| Reagan | Big Lake | Marathon #11 |
| Reagan | Big Lake | Marathon #12 |
| Reagan | Big Lake | Marathon #8 |
| Reagan | Big Lake | Merchant 10 |
| Reagan | Big Lake | Merchant 10-11-14 |
| Reagan | Big Lake | Merchant C.W. |
| Reagan | Big Lake | Miguel |
| Reagan | Big Lake | Mobil – Carr Leasee |
| Reagan | Big Lake | Nabors Well Services Ltd. |
| Reagan | Big Lake | Nannie C. Parrish Lease |
| Reagan | Big Lake | Newmont 35 |
| Reagan | Big Lake | Newmont C |
| Reagan | Big Lake | Noel #1 |
| Reagan | Big Lake | Nordic A |
| Reagan | Big Lake | Nordic BK |
| Reagan | Big Lake | Nunn A |
| Reagan | Big Lake | Nunn B |
| Reagan | Big Lake | Nunn J.F. 2 |
| Reagan | Big Lake | Owens PMTX |
| Reagan | Big Lake | Parish #3 |
| Reagan | Big Lake | Parish #8 |
| Reagan | Big Lake | Prime Kile |
| Reagan | Big Lake | Prime Kile A |
| Reagan | Big Lake | Prime Kile B |
| Reagan | Big Lake | Proctor B&C |
| Reagan | Big Lake | Rainbow 19A 1 |
| Reagan | Big Lake | Ringo 1 |
| Reagan | Big Lake | Ringo 9 |
| Reagan | Big Lake | Ringo 10 |
| Reagan | Big Lake | Rocker B #1 |
| Reagan | Big Lake | Rocker B #27 SWD |
| Reagan | Big Lake | Rocker B 40/41 |
| Reagan | Big Lake | Rocker B 89 |
| Reagan | Big Lake | Rocker B Booster |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|--------|--------------|--------------------------|
| Reagan | Big Lake | S&T Blk 3 |
| Reagan | Big Lake | S&T Block 1 #1 Lease |
| Reagan | Big Lake | S&T Block 1 #2 Lease |
| Reagan | Big Lake | Santa Anna State #1 |
| Reagan | Big Lake | Santa Rita 6 State #1 |
| Reagan | Big Lake | Southland Scott Lease |
| Reagan | Big Lake | SSSU #9 – 58 |
| Reagan | Big Lake | SSSU #9 – 60 |
| Reagan | Big Lake | SSSU #9 – 61 |
| Reagan | Big Lake | Stiles SWD |
| Reagan | Big Lake | Stout A |
| Reagan | Big Lake | Texaco #2 (SWD) |
| Reagan | Big Lake | Texaco #3 |
| Reagan | Big Lake | Texon 28 #1 |
| Reagan | Big Lake | Texon 83 #2 |
| Reagan | Big Lake | Thunderbird #1 |
| Reagan | Big Lake | Trigg "18" #2 |
| Reagan | Big Lake | UL Reagan 2001 |
| Reagan | Big Lake | UL Reagan Rework |
| Reagan | Big Lake | University 2 – 31 |
| Reagan | Big Lake | University 33 #1Y |
| Reagan | Big Lake | University 48 – 15 |
| Reagan | Big Lake | University 48 – 15 "A" |
| Reagan | Big Lake | University – BR – Lease |
| Reagan | Big Lake | University Cassandra CTB |
| Reagan | Big Lake | University Courtney CTB |
| Reagan | Big Lake | University Delbra |
| Reagan | Big Lake | University et All Leases |
| Reagan | Big Lake | University Leigh |
| Reagan | Big Lake | Wanda C. Doss 21 |
| Reagan | Big Lake | Weatherby A&B |
| Reagan | Big Lake | Weatherby PMTX |
| Reagan | Big Lake | Weddell Haby "C" |
| Reagan | Big Lake | Zulette Hughes SWD |
| Reagan | Big Lake | Zulette – Jackson Hughes |
| Reagan | Midkiff | Midkiff Gas Plant |
| Reagan | Midkiff | Patterson Station PMTX |
| Reagan | Midland | Verlis |
| Reagan | Midland | Verlis A |
| Reagan | Reagan | Charles Hughes 21 |
| Reagan | Reagan | GPS |

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| COUNTY | JURISDICTION | FACILITY NAME |
|--------|--------------|------------------------------|
| Reagan | Reagan | North Stiles Sprayberry Unit |
| Reagan | Reagan | Thomas "3" |
| Reagan | Reagan | Weatherby 1216 |
| Reagan | Reagan | Weatherby 1219 |
| Reagan | Rural | Sprayberry Field |
| Reagan | Stiles | SSSU #10 – 31 |
| Reagan | Stiles | SSSU #10 – 32 |
| Reagan | Stiles | SSSU #10 – 33 |
| Reagan | Stiles | SSSU #10 – 42 |
| Reagan | Stiles | SSSU #10 – 48 |
| Reagan | Stiles | SSSU #10 – 49 |
| Reagan | Stiles | SSSU #10 – 57 |
| Reagan | Stiles | SSSU #11 – 36 |
| Reagan | Stiles | SSSU #11 – 37 |
| Reagan | Stiles | SSSU #11 – 38 |
| Reagan | Stiles | SSSU #11 – 40 |
| Reagan | Stiles | SSSU #11 – 45 |
| Reagan | Stiles | SSSU #11 – 50 |
| Reagan | Stiles | SSSU #12 – 54 |
| Reagan | Stiles | SSSU #13 – 55 |
| Reagan | Stiles | SSSU #13 – 56 |
| Reagan | Stiles | SSSU #18 (SWD) |
| Reagan | Stiles | SSSU #19 |
| Reagan | Stiles | SSSU #20 |
| Reagan | Stiles | SSSU #21 |
| Reagan | Stiles | SSSU #23 |
| Reagan | Stiles | SSSU #2 – 34 |
| Reagan | Stiles | SSSU #2 – 35 |
| Reagan | Stiles | SSSU #24 |
| Reagan | Stiles | SSSU #2 – 41 |
| Reagan | Stiles | SSSU #2 – 47 |
| Reagan | Stiles | SSSU #25 |
| Reagan | Stiles | SSSU #2 – 51 |
| Reagan | Stiles | SSSU #2 – 52 |
| Reagan | Stiles | SSSU #2 – 53 |
| Reagan | Stiles | SSSU #29 |
| Reagan | Stiles | SSSU #3 |
| Reagan | Stiles | SSSU #4W |
| Reagan | Stiles | SSSU #6 |
| Reagan | Stiles | SSSU #9 – 30 |
| Reagan | Stiles | SSSU #9 – 39 |

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| COUNTY | JURISDICTION | FACILITY NAME |
|------------|--------------|--|
| Reagan | Stiles | SSSU #9 – 43 |
| Reagan | Stiles | SSSU #9 – 44 |
| Reagan | Stiles | SSSU #9 – 46 |
| Reagan | Texon | S. Texon SWD Battery |
| Reagan | Texon | University "2" #4 |
| Reagan | Texon | University "2M" #1 |
| Reagan | Texon | University #2 – 1 |
| Reagan | Texon | University #2 – A |
| Reagan | Texon | University #35 |
| Reagan | Texon | University #36 & 36B |
| Reagan | Texon | University 11 #1 |
| Reagan | Texon | Vaughn Acct. #25 |
| Schleicher | Christoval | Arco Thomerson 5 #1 |
| Schleicher | Christoval | Harris Lease |
| Schleicher | Christoval | McLaughlin Lease |
| Schleicher | Christoval | O'Harrow "69" #1 |
| Schleicher | Christoval | O'Harrow 55 #1 |
| Schleicher | Christoval | Reichert "36" #1 |
| Schleicher | Christoval | Thomerson #1 |
| Schleicher | Christoval | Thomerson 2M |
| Schleicher | Christoval | Womack |
| Schleicher | Eldorado | Annie Mae Murphy #2 Lease |
| Schleicher | Eldorado | Annie Mae Murphy #3 Lease |
| Schleicher | Eldorado | Annie Mae Murphy #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Barrow #10 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Barrow #6R Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Berger 3 |
| Schleicher | Eldorado | Berger 7A |
| Schleicher | Eldorado | Brooks #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Brooks 11 #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Brooks 11 #3 & #4 Commingled Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Brooks Lease |
| Schleicher | Eldorado | Bruton #2 Tank Battery |
| Schleicher | Eldorado | Bruton 27 #1 Tank Battery (COG Operating LLC) |
| Schleicher | Eldorado | Camar, SW Field |

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| COUNTY | JURISDICTION | FACILITY NAME |
|------------|--------------|--|
| Schleicher | Eldorado | Case #1 Lease |
| Schleicher | Eldorado | Central Velrex Compressor Station |
| Schleicher | Eldorado | Chaparral Energy, LLC – Baugh Spence #1001 |
| Schleicher | Eldorado | Chaparral Energy, LLC – Baugh Spence #1501 |
| Schleicher | Eldorado | Chaparral Energy, LLC – McElroy Estate 1C |
| Schleicher | Eldorado | Chaparral Energy, LLC – Page Ranch #5-1 |
| Schleicher | Eldorado | Chaparral Energy, LLC – Spence Estate #2 |
| Schleicher | Eldorado | Chaparral Energy, LLC – Spence Estate #3 |
| Schleicher | Eldorado | Chaparral Energy, LLC – Spence Estate #4 |
| Schleicher | Eldorado | Chaparral Energy, LLC – Taylor #3 |
| Schleicher | Eldorado | Chaparral Energy, LLC – Taylor #5 |
| Schleicher | Eldorado | Chaparral Energy, LLC – Tisdale #2 |
| Schleicher | Eldorado | Chaparral Energy, LLC – Tisdale #3 |
| Schleicher | Eldorado | Clark Tank Battery |
| Schleicher | Eldorado | Cody Bell 11 #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Cody Bell 11 #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | D. W. Spence |
| Schleicher | Eldorado | Delhi-Jones #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Delhi-Jones #3 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Delhi-Jones #6 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Edmiston #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Edmiston #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | El Dorado Compressor Station |
| Schleicher | Eldorado | Ellen Sada Enochs #3 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Enochs-Sada Ellen #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | G.H. Neill #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Glass 50 #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | H.J. Case "A" #1 Lease |
| Schleicher | Eldorado | H.J. Case "A" #2 Lease |
| Schleicher | Eldorado | H.J. Case "A" #3 Lease |

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| COUNTY | JURISDICTION | FACILITY NAME |
|------------|--------------|--|
| Schleicher | Eldorado | H.J. Case "A" #4 Lease |
| Schleicher | Eldorado | H.J. Case "A" #5 Lease |
| Schleicher | Eldorado | H.J. Case "B" #1 Lease |
| Schleicher | Eldorado | H.J. Case "B" #2 Lease |
| Schleicher | Eldorado | H.J. Case "B" #3 Lease |
| Schleicher | Eldorado | H.J. Case "B" #4 Lease |
| Schleicher | Eldorado | H.J. Case "B" #5 Lease |
| Schleicher | Eldorado | Jackson #10 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jackson #2 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jackson #5 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jackson #6 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jackson #8 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jackson 11 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jackson 12 Battery (OXY USA Inc.) |
| Schleicher | Eldorado | Jackson 13 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jackson 14 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jeffers 18A Tank Battery |
| Schleicher | Eldorado | Jeffers 28A Tank Battery |
| Schleicher | Eldorado | Jeffers Tank Battery |
| Schleicher | Eldorado | Jones "A" #3 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jones "B" #6 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jones "B" #7 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jones #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jones #5 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jones A – 10 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jones A – 11 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Jones B #8 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |

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| COUNTY | JURISDICTION | FACILITY NAME |
|------------|--------------|---|
| | | Business Unit) |
| Schleicher | Eldorado | Jones, T K Unit TG 1 |
| Schleicher | Eldorado | Keeling 108 #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Keeney 77 #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Keeney 77 #3 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Keeney 77 #4 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Keeney 77 – 5 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Keeney Neil Unit 77-2 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Keeney Neil Unit 77-3 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Koy (Canyon) Unit Tank Battery (Parallel Petroleum Corporation) |
| Schleicher | Eldorado | Lloyd Mora 42 West Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Lloyd Mora West #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Luedecke 6 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Luedecke "110" #4, Jacob Luedecke #2 & S.E. Luedecke #3 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Luedecke #1 Central Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Luedecke #5 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Mayer BIF Compressor Station |
| Schleicher | Eldorado | Mayer Biff Booster |
| Schleicher | Eldorado | Mayer Biff North Tank Battery |
| Schleicher | Eldorado | Mayer Tank Battery |
| Schleicher | Eldorado | Meador 178 #2 Tank Battery |
| Schleicher | Eldorado | Meador 178 #4 Tank Battery |
| Schleicher | Eldorado | Meador 178 – 8 Tank Battery |
| Schleicher | Eldorado | Meadors 11 – 1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Mora Lee West etal #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |

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| COUNTY | JURISDICTION | FACILITY NAME |
|------------|--------------|--|
| Schleicher | Eldorado | Mozelle #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Mrs. C.C. West (Mozelle) #1 & #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Murphy 18 #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Murphy 19 #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Neva West Strawn Unit |
| Schleicher | Eldorado | Nixon #1 Tank Battery |
| Schleicher | Eldorado | Nixon 177 – 6 |
| Schleicher | Eldorado | Nixon Meador Comp. Station |
| Schleicher | Eldorado | Northern Yard |
| Schleicher | Eldorado | Olsen – Cahill |
| Schleicher | Eldorado | Otto Williams "G" Tank Battery (Southwest Royalties, Inc.) |
| Schleicher | Eldorado | Page #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Page (Canyon) Unit Tank Battery (Parallel Petroleum Corporation) |
| Schleicher | Eldorado | Page Brothers #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Parker #3 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Parker #4 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Parker #5 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Powell #23 – 1 |
| Schleicher | Eldorado | Powell 23 #3 Tank Battery |
| Schleicher | Eldorado | Powell B #1 |
| Schleicher | Eldorado | Reichert #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Roach 50 #7 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Schrank 24 #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Speck #2 |
| Schleicher | Eldorado | Stockton #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | T.K. Jones Heirs "A" #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |

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| COUNTY | JURISDICTION | FACILITY NAME |
|------------|--------------|--|
| Schleicher | Eldorado | Thad A. Thomson "C" #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Thad A. Thomson "E" #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Thomerson |
| Schleicher | Eldorado | Thomson "E" #3 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Thomson "F" #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Thomson Tank Battery (WTG Exploration, Inc.) |
| Schleicher | Eldorado | TNC-Eldorado Live Oak Substation |
| Schleicher | Eldorado | Turnbull 56 – 1 |
| Schleicher | Eldorado | University #1 |
| Schleicher | Eldorado | University #2 |
| Schleicher | Eldorado | University #11 |
| Schleicher | Eldorado | University #14 |
| Schleicher | Eldorado | University #14A – 1 |
| Schleicher | Eldorado | University "6" #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | University "9" #3 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | University "23" #5 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | University "23" #6 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | University 54 – 17 – 4 Tank Battery |
| Schleicher | Eldorado | University 54 – 21 |
| Schleicher | Eldorado | University 57 – 17 – 2 |
| Schleicher | Eldorado | Verdad Oil & Gas Corp – Case 1,2,3 |
| Schleicher | Eldorado | Verdad Oil & Gas Corp – Eldorado 1 |
| Schleicher | Eldorado | Verdad Oil & Gas Corp – Harper 1,2,4,5 |
| Schleicher | Eldorado | Verdad Oil & Gas Corp – Lux 1,2 |
| Schleicher | Eldorado | Wade |
| Schleicher | Eldorado | West "A" #7 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West "B" #8 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West 19 #4 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West 47 #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West 48 #2 Tank Battery (OXY USA Inc. – Mid-Continent |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|------------|--------------|--|
| | | Business Unit) |
| Schleicher | Eldorado | West 78 #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West 78 Unit 3 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West 78 Unit 4 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West 78 Unit 6 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West 79 #1 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West 79 #2 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West Unit #10 & #11 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West Unit #3 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West Unit #6 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West Unit #9 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | West Unit 13 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Whitten "A" Common Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Whitten 35 "B" #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Whitten A-8 Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Williams Oil Co. – HARRIS "C" |
| Schleicher | Eldorado | Williams Oil Co. – TUCKER |
| Schleicher | Eldorado | Williams Ranch #1 Lease |
| Schleicher | Eldorado | Wilson Pope |
| Schleicher | Eldorado | Wilton "A" #1028 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Schleicher | Eldorado | Zachry Oil & Gas Properties |
| Schleicher | Eldorado | Zachry Oil & Gas Properties |
| Schleicher | Eldorado | Zachry Oil & Gas Properties |
| Schleicher | Eldorado | Zachry Oil & Gas Properties |
| Schleicher | Midland | Powell Lease 101 |
| Schleicher | Midland | Virgil J. Powell #105 |
| Schleicher | Midland | Virgil J. Powell Tr. A #5 & #10 |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|------------|--------------|-------------------------------|
| Schleicher | Midland | Virgil J. Powell Tr. B #100 I |
| Schleicher | Midland | Virgil J. Powell Tr. B #104 |
| Schleicher | Midland | Wilson Estate |
| Schleicher | Rural | Ballew #3 |
| Schleicher | Rural | Barrow 2 |
| Schleicher | Rural | Barrow 4 |
| Schleicher | Rural | Barrow 5 |
| Schleicher | Rural | Barrow 6 |
| Schleicher | Rural | Barrow 7 |
| Schleicher | Rural | Barrow 9 |
| Schleicher | Rural | Barrow Estate #1 |
| Schleicher | Rural | Barrow, George "A" #1 |
| Schleicher | Rural | Barrow, George Jr. #1 |
| Schleicher | Rural | Bell, CODY #1 |
| Schleicher | Rural | Bush Thompson #2 – 140 |
| Schleicher | Rural | Case #1, #2 |
| Schleicher | Rural | Case #3 |
| Schleicher | Rural | Case #4 |
| Schleicher | Rural | Case, R.I. #1 |
| Schleicher | Rural | Deal "A" #1 |
| Schleicher | Rural | Deal "A" #3 |
| Schleicher | Rural | Edmiston #3 |
| Schleicher | Rural | Edmiston 172 – 1 |
| Schleicher | Rural | Jones "C" #2 |
| Schleicher | Rural | Jones "C" #3 |
| Schleicher | Rural | Jones "C" #4 |
| Schleicher | Rural | Keeney #2 – 80 |
| Schleicher | Rural | Keeney 3 – 80 |
| Schleicher | Rural | McAngus #2 – 107 |
| Schleicher | Rural | McWhorter #2 |
| Schleicher | Rural | McWhorter #3 |
| Schleicher | Rural | Meador 34 – 1 |
| Schleicher | Rural | Murphy #2 |
| Schleicher | Rural | Neill 1 |
| Schleicher | Rural | Roach #1 |
| Schleicher | Rural | Roach #3 |
| Schleicher | Rural | Tankersley #1 – 8 |
| Schleicher | Rural | University "14" #3 |
| Schleicher | Rural | University "17" #4 |
| Schleicher | Rural | University "C" #2 |
| Schleicher | Rural | University "C" #3 |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|------------|---------------|--|
| Schleicher | Rural | University "D" #3 |
| Schleicher | Rural | University "D" #4 |
| Schleicher | Rural | University "E" #1 |
| Schleicher | Rural | University #1 – 5 |
| Schleicher | Rural | University #2 |
| Schleicher | Rural | University 15/16 |
| Schleicher | Rural | University 53 – 17 #1 |
| Schleicher | Rural | University 53 – 17 #2 |
| Schleicher | Rural | Wales #1 – 8 |
| Schleicher | Rural | Whitten "A" #1 – 26 |
| Schleicher | Rural | Whitten "E" #1 |
| Schleicher | Rural | Whitten "E" #3 |
| Schleicher | Rural | Whitten #1 |
| Schleicher | Rural | Whitten #1 – 31 |
| Schleicher | Rural | Whitten 1 – 52 |
| Schleicher | Rural | Williams/Pearl 1 – 102 |
| Schleicher | Rural | Williams/Pearl 1203B #3 |
| Sterling | Robert Lee | Gasconades Creek Substation |
| Sterling | Rural | Sterling County New Wells 09 |
| Sterling | Rural | Sterling County Production Wells 09 |
| Sterling | Rural | Sterling County Production Wells 09 |
| Sterling | Sterling City | Ainsworth "10" (Rose Creek, North; Wolfcamp) |
| Sterling | Sterling City | Baco: 13 Miles #1, Ellwood (Mississippian) Field |
| Sterling | Sterling City | Baco: AMF 38 #1, Ace of Spades (Ellenburger) Field |
| Sterling | Sterling City | Baco: AMF 38 #2, Ace of Spades (Ellenburger) Field |
| Sterling | Sterling City | Baco: Apache 58 #1, Walter (Wolfcamp) Field |
| Sterling | Sterling City | Baco: Apache 58 #2, Walter (Wolfcamp) Field |
| Sterling | Sterling City | Baco: Ateca 72 #1, Triple C (Miss.) Field |
| Sterling | Sterling City | Baco: Ateca 72 #2, Triple C (Ellenburger) Field |
| Sterling | Sterling City | Baco: Blue 15 #1, Lonesome Dove (Miss) Field |
| Sterling | Sterling City | Baco: Blue 15 #2, Ace of Spades (Ellenburger) Field' |
| Sterling | Sterling City | Baco: Bunton 37 #1X, Ace of Spades (Ellenburger) Field |
| Sterling | Sterling City | Baco: Bunton 37 #2, Passout (Mississippian) Field |
| Sterling | Sterling City | Baco: Clark #1X, Rose Creek, N. (Wolfcamp D.S.) Field |
| Sterling | Sterling City | Baco: Collins #2, Triple C (Miss.) Field |
| Sterling | Sterling City | Baco: Collins #3, Walter (Wolfcamp) Field |
| Sterling | Sterling City | Baco: Double 7 #2, Passout (Strawn) Field |
| Sterling | Sterling City | Baco: Foster 14 #1, Lonesome Dove (Miss) Field |
| Sterling | Sterling City | Baco: Foster 73 #1, Seventy-Seven (Ellenburger) Field |
| Sterling | Sterling City | Baco: Glass 59 #1, Walter (Wolfcamp) Field |
| Sterling | Sterling City | Baco: Kohler Clark 1314L, Rose Creek, N. (Wolfcamp D.S.) |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|----------|---------------|---|
| | | Field |
| Sterling | Sterling City | Baco: Little Blue 58 #1, Passout (Mississippian) Field |
| Sterling | Sterling City | Baco: Reed Estate '13' #2, Sterling, N. (Canyon Sd) Field |
| Sterling | Sterling City | Bailey 10 Tank Battery |
| Sterling | Sterling City | Bailey 12 Tank Battery |
| Sterling | Sterling City | Bailey 12S Tank Battery |
| Sterling | Sterling City | Bailey 16 Tank Battery |
| Sterling | Sterling City | Bailey 32 Tank Battery 1 |
| Sterling | Sterling City | Chaparral Energy, LLC – Horwood #1 |
| Sterling | Sterling City | Chaparral Energy, LLC – Inter-American Oil Works #1 |
| Sterling | Sterling City | Chaparral Energy, LLC – Sellers #66 – 4 |
| Sterling | Sterling City | Chaparral Energy, LLC – Sellers #67 – 1 |
| Sterling | Sterling City | China Draw Lease |
| Sterling | Sterling City | Conger (Canyon) PMTX |
| Sterling | Sterling City | Conger HP Booster |
| Sterling | Sterling City | Conger Sales Facility |
| Sterling | Sterling City | Conger Sales Facility Tank Battery 1 |
| Sterling | Sterling City | Credo Booster |
| Sterling | Sterling City | Disotell Sulfa Treat |
| Sterling | Sterling City | Ferguson 30 Tank Battery 1 |
| Sterling | Sterling City | Ferguson 34 Tank Battery 1 |
| Sterling | Sterling City | Foster |
| Sterling | Sterling City | Foster 28 |
| Sterling | Sterling City | Glass H Tank Battery |
| Sterling | Sterling City | H2O Tank Battery Conger Sales Facility |
| Sterling | Sterling City | Hoppe – S ellars 1 – X |
| Sterling | Sterling City | Horwood Battery (COG Operating LLC) |
| Sterling | Sterling City | JD Sugg A Tank Battery 1 |
| Sterling | Sterling City | McEntire Lease |
| Sterling | Sterling City | Mesa Lease |
| Sterling | Sterling City | Middle University Compressor Station |
| Sterling | Sterling City | Nina |
| Sterling | Sterling City | Range Production Company – Conger (Leonard) Field |
| Sterling | Sterling City | Range Production Company – Conger Gathering Facility |
| Sterling | Sterling City | Range Production Company – Council Gathering Facility |
| Sterling | Sterling City | Range Production Company – Deck (Cisco) Field |
| Sterling | Sterling City | Range Production Company – Lower Half (Wolfcamp) Field |
| Sterling | Sterling City | Range Production Company – Sterling No. (Canyon Sand) Field |
| Sterling | Sterling City | Range Production Company – Sugg Ranch (Canyon Dist |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|----------|---------------|--|
| | | 08) Field |
| Sterling | Sterling City | Range Production Company – W.A.M. (Wolfcamp) |
| Sterling | Sterling City | Range Production Company – William Fuller (Lo. Clearfork) Field |
| Sterling | Sterling City | Rose Creek North Unit/Inj Station (Rose Creek, North; Wolfcamp) |
| Sterling | Sterling City | Ross Foster |
| Sterling | Sterling City | Ross Foster B |
| Sterling | Sterling City | Sterling E Tank Battery 1 |
| Sterling | Sterling City | Sugg A Tank Battery 1 |
| Sterling | Sterling City | Sugg AA Tank Battery |
| Sterling | Sterling City | Sugg B Tank Battery |
| Sterling | Sterling City | Sugg B Tank Battery 2 |
| Sterling | Sterling City | Sugg B Tank Battery 3 |
| Sterling | Sterling City | Sugg BB Tank Battery |
| Sterling | Sterling City | Sugg C Tank Battery 1 |
| Sterling | Sterling City | Sugg D Tank Battery 1 |
| Sterling | Sterling City | Sugg D Tank Battery 2 |
| Sterling | Sterling City | Stewart Lease |
| Sterling | Sterling City | Targa Texas Field Services LP – Caldwell Compressor Station |
| Sterling | Sterling City | Targa Texas Field Services LP – Conger Gas Plant |
| Sterling | Sterling City | Targa Texas Field Services LP – Disotell Compressor Station |
| Sterling | Sterling City | Targa Texas Field Services LP – IP South Compressor Station |
| Sterling | Sterling City | Targa Texas Field Services LP – Middle Conger Compressor Station |
| Sterling | Sterling City | Targa Texas Field Services LP – N Conger Compressor Station |
| Sterling | Sterling City | Targa Texas Field Services LP – South Conger Compressor Station |
| Sterling | Sterling City | Targa Texas Field Services LP – Sterling Gas Plant |
| Sterling | Sterling City | TxDOT – San Angelo-Sterling City Maintenance Facility |
| Sterling | Sterling City | V. Wilkinson (McEntire; Fusselman) |
| Sterling | Sterling City | W.L. Foster, Jr. – 27 – Tank Battery |
| Sterling | Sterling City | WAM Energy – China Draw Lease |
| Sterling | Sterling City | Wilkinson Lease |
| Sutton | Ft. McKavett | Wilson Lease |
| Sutton | Midland | Devon Energy – Sonora Field |
| Sutton | Sonora | Aldwell Ranch Field |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|--------|--------------|---|
| Sutton | Sonora | Archer SWD |
| Sutton | Sonora | Askew & Glimp 42 # 1 SWD |
| Sutton | Sonora | Baker Petrolite – Sonora |
| Sutton | Sonora | Bart Booster |
| Sutton | Sonora | Basic Energy Services/Sonora |
| Sutton | Sonora | Bloodworth SWD |
| Sutton | Sonora | Bruce Babb Chemicals, Inc. (BB Chemicals) |
| Sutton | Sonora | Burns Compressor Station |
| Sutton | Sonora | Byrd/WTG Compressor-Byrd Operating Co. |
| Sutton | Sonora | Canyon Ranch 115 SWD |
| Sutton | Sonora | CEM Tank Battery |
| Sutton | Sonora | Center Point #2 |
| Sutton | Sonora | Center Point #3 |
| Sutton | Sonora | Center Point #4 |
| Sutton | Sonora | Center Point #5 |
| Sutton | Sonora | Center Point #6 |
| Sutton | Sonora | Center Point #7 |
| Sutton | Sonora | Center Point #8 |
| Sutton | Sonora | Center Point #9 |
| Sutton | Sonora | Center Point #11 |
| Sutton | Sonora | Center Point #12 |
| Sutton | Sonora | Center Point #13 |
| Sutton | Sonora | Center Point #15 |
| Sutton | Sonora | Center Point #16 |
| Sutton | Sonora | Center Point #17 |
| Sutton | Sonora | Center Point #20 |
| Sutton | Sonora | Center Point #21 |
| Sutton | Sonora | Center Point #23 |
| Sutton | Sonora | Center Point #24 |
| Sutton | Sonora | Center Point #28 |
| Sutton | Sonora | Center Point #29 |
| Sutton | Sonora | Center Point #30 |
| Sutton | Sonora | Center Point #40 |
| Sutton | Sonora | Center Point #41 |
| Sutton | Sonora | Center Point #42 |
| Sutton | Sonora | Center Point #50 |
| Sutton | Sonora | Center Point #61 |
| Sutton | Sonora | Center Point 46 |
| Sutton | Sonora | Dannheim Compressor Station |
| Sutton | Sonora | Davis Compressor Station |
| Sutton | Sonora | Duke Wilson Compressor Station |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|--------|--------------|---|
| Sutton | Sonora | Dunbar #79 Water Station |
| Sutton | Sonora | East Ward Compressor Station |
| Sutton | Sonora | Epps Tank Battery |
| Sutton | Sonora | Espy Compressor Station |
| Sutton | Sonora | Fawcett Compressor Station |
| Sutton | Sonora | Fields 55 – 5 SWD |
| Sutton | Sonora | Florence-Hamill 26 – 2 – Byrd Operating Co. |
| Sutton | Sonora | Genini 39 #1 Tank Battery |
| Sutton | Sonora | Glasscock Compressor Station |
| Sutton | Sonora | Hideout |
| Sutton | Sonora | Hudspeth Compressor |
| Sutton | Sonora | Hudspeth Stonewater |
| Sutton | Sonora | Ingram – Sonora Plant |
| Sutton | Sonora | Jones Center Point |
| Sutton | Sonora | Jones R.157 – 1 |
| Sutton | Sonora | Jones SWD 118 – 16 |
| Sutton | Sonora | Juno Compressor Station |
| Sutton | Sonora | Kiser #02 – 2 |
| Sutton | Sonora | Lively Compressor Station |
| Sutton | Sonora | M & B Battery |
| Sutton | Sonora | Mayer |
| Sutton | Sonora | Mayer Ranch 38 – 39 Tank Battery |
| Sutton | Sonora | Mayer Biff South Tank Battery |
| Sutton | Sonora | Mayer CK 12 |
| Sutton | Sonora | Mayer CK Compressor Station |
| Sutton | Sonora | Mayer DC Compressor Station |
| Sutton | Sonora | Mayer GL JR Compressor Station |
| Sutton | Sonora | Mayer GL SR Compressor Station |
| Sutton | Sonora | Mayer Ranch Comp. Station |
| Sutton | Sonora | Mayfield Compressor Station |
| Sutton | Sonora | McMillian – Cusenbary Tank Battery |
| Sutton | Sonora | McMillian Tank Battery |
| Sutton | Sonora | Mitchell Tank Battery |
| Sutton | Sonora | Morriss Truck Station |
| Sutton | Sonora | Nabors Well Services Ltd. |
| Sutton | Sonora | Nabors Well Services Ltd. |
| Sutton | Sonora | Nicks, Gerald #5 |
| Sutton | Sonora | Nobles #04 |
| Sutton | Sonora | Nobles #05 |
| Sutton | Sonora | Nobles #06 |
| Sutton | Sonora | Nobles #07 |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|-----------|--------------|---|
| Sutton | Sonora | North Rich Compressor Station |
| Sutton | Sonora | Oasis Compressor Station |
| Sutton | Sonora | Pfluger 86 – 1 SWD |
| Sutton | Sonora | Richardson Center Point |
| Sutton | Sonora | Rip Ward Lease |
| Sutton | Sonora | Sawyer Canyon Area "Carta" -sold 10-30-09 |
| Sutton | Sonora | Sawyer Canyon Area "E" -sold 10-30-09 |
| Sutton | Sonora | Sawyer Canyon Area "F" -sold 10-30-09 |
| Sutton | Sonora | Shurley South Compressor Station |
| Sutton | Sonora | Simmons Ranch 102 |
| Sutton | Sonora | Simmons Ranch 103 Tank Battery |
| Sutton | Sonora | Simmons Ranch 28 |
| Sutton | Sonora | Simons Petroleum – Sonora Bulk Plant |
| Sutton | Sonora | Sonora Area "B" -sold 10-30-09 |
| Sutton | Sonora | Sonora Area "C" |
| Sutton | Sonora | Sonora Compressor Station |
| Sutton | Sonora | Sonora Compressor Station |
| Sutton | Sonora | Sonora Gas Plant |
| Sutton | Sonora | Sonora Plant 1 |
| Sutton | Sonora | Sonora Yard Tank Battery |
| Sutton | Sonora | South Rich Compressor Station |
| Sutton | Sonora | Steen #58 |
| Sutton | Sonora | Steen 47 Compressor Station |
| Sutton | Sonora | Stewart 2 – 4 SWD |
| Sutton | Sonora | Thompson |
| Sutton | Sonora | TxDOT – San Angelo – Sonora Maintenance Facility |
| Sutton | Sonora | United Fuel & Energy |
| Sutton | Sonora | Van Shoubrouck SWD Facility |
| Sutton | Sonora | VV Tank Battery |
| Sutton | Sonora | Ward 26 Compressor Station |
| Sutton | Sonora | West Fin Tex Yard |
| Sutton | Sonora | Whitehead Compressor Station |
| Sutton | Sonora | Wilson North Compressor Station |
| Sutton | Sonora | Wilson South Compressor Station |
| Sutton | Sonora | Canyon Ranch 82 – 8S SWD |
| Sutton | Sonora | Schlumberger Technology Corporation |
| Tom Green | Carlsbad | Targa Texas Field Services LP – Carlsbad Compressor Station |
| Tom Green | Carlsbad | Turner Ranch TD – 113 #1 & #2 Lease |
| Tom Green | Carlsbad | Turner Ranch TD – 116 #1 #2 & #3 Lease |
| Tom Green | Christoval | Anna Battery (COG Operating LLC) |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|-----------|----------------|--|
| Tom Green | Christoval | Charter Petroleum Company: Robertson Tank Battery |
| Tom Green | Christoval | Dan SWD Lease |
| Tom Green | Christoval | Edwin Lease |
| Tom Green | Christoval | G.S. Winterbotham "C" #1 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Tom Green | Christoval | Grandfield Consulting Joe Funk Lease |
| Tom Green | Christoval | Johnson, J.W. Lease |
| Tom Green | Christoval | Jones "A" #2 Tank Battery (OXY USA Inc. – Mid-Continent Business Unit) |
| Tom Green | Christoval | McGregor Battery (COG Operating LLC) |
| Tom Green | Goodfellow AFB | Goodfellow Air Force Base |
| Tom Green | Knickerbocker | Swartz Oil Co. Rathbone Lease |
| Tom Green | Knickerbocker | Swartz Oil Co. Tweedy Lease |
| Tom Green | Midland | Weddell 77 "A" |
| Tom Green | Rural | Crosby #1 |
| Tom Green | Rural | Probandt #1 |
| Tom Green | Rural | Winterbotham #2-26 |
| Tom Green | San Angelo | Airgas Southwest, Inc. – San Angelo #53 |
| Tom Green | San Angelo | Atkinson Unit |
| Tom Green | San Angelo | Conner Steel Products Inc. |
| Tom Green | San Angelo | CSA Materials, Inc. |
| Tom Green | San Angelo | Delek Marketing and Supply LP – San Angelo Products Terminal |
| Tom Green | San Angelo | Endura Products Corp. |
| Tom Green | San Angelo | Ethicon Inc. |
| Tom Green | San Angelo | Fort Concho Gas Storage, Inc. |
| Tom Green | San Angelo | Goodyear Proving Grounds |
| Tom Green | San Angelo | Green, J. Wiley "A" Lease |
| Tom Green | San Angelo | Green, J. Wiley "B" Lease |
| Tom Green | San Angelo | Guinn |
| Tom Green | San Angelo | Guinn ôAö |
| Tom Green | San Angelo | Hirschfeld Steel Group LP |
| Tom Green | San Angelo | Ingram – San Angelo Plant # 1 Plant |
| Tom Green | San Angelo | Ingram – San Angelo Plant # 2 Plant |
| Tom Green | San Angelo | Jones |
| Tom Green | San Angelo | Jones ôAö |
| Tom Green | San Angelo | Jones ôCö |
| Tom Green | San Angelo | Jones, E. D. ôAö |
| Tom Green | San Angelo | Lone Star Beef Processors LLC |
| Tom Green | San Angelo | McGill #5, 6, 8 |
| Tom Green | San Angelo | MISS ELA |

Appendix D

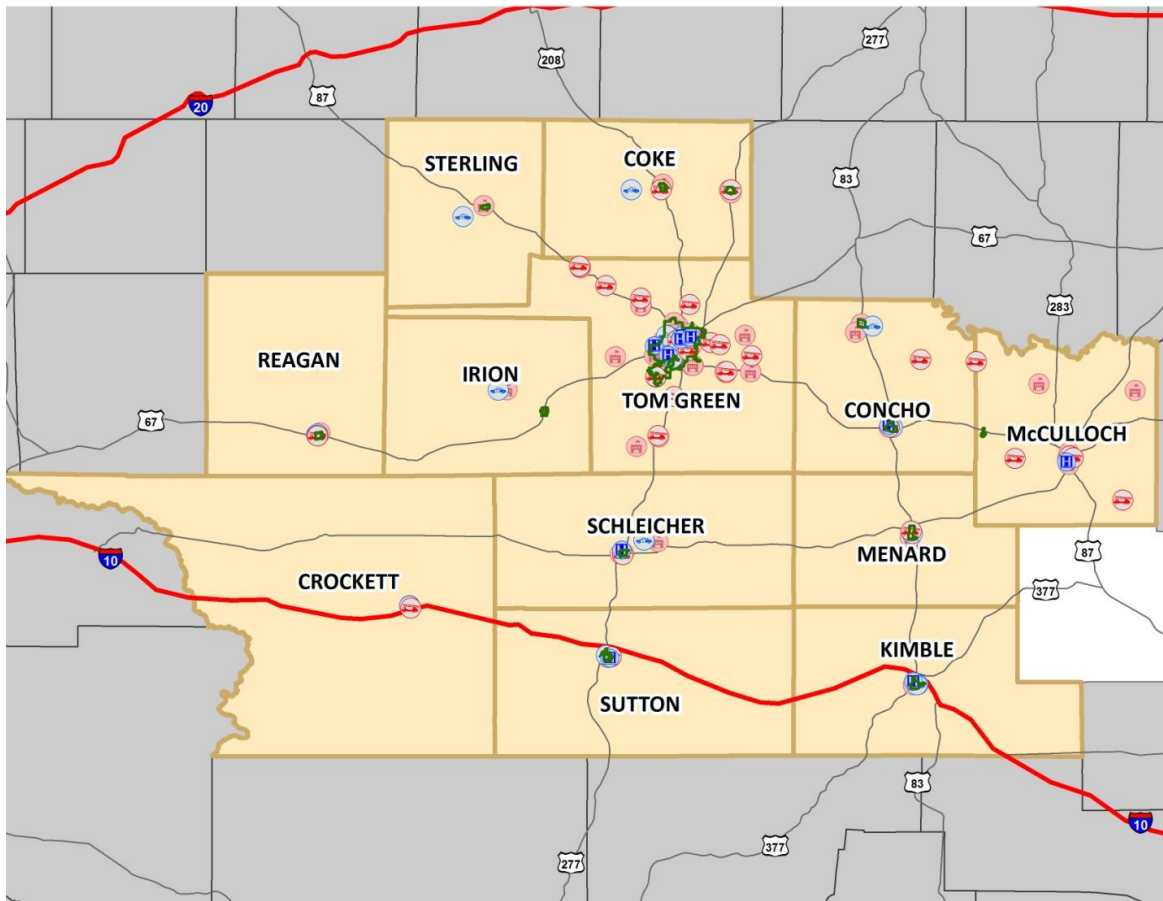
| COUNTY | JURISDICTION | FACILITY NAME |
|-----------|--------------|--|
| Tom Green | San Angelo | Pflugler A Tank Battery 2 |
| Tom Green | San Angelo | Pflugler A Tank Battery 3 |
| Tom Green | San Angelo | Pflugler A Tank Battery 4 |
| Tom Green | San Angelo | Pflugler B Tank Battery 1 |
| Tom Green | San Angelo | Pflugler B Tank Battery 2 |
| Tom Green | San Angelo | Pflugler D Tank Battery 1 |
| Tom Green | San Angelo | Pflugler D Tank Battery 2 |
| Tom Green | San Angelo | Pflugler N Tank Battery 1 |
| Tom Green | San Angelo | Ralph Wilson A – Byrd Operating Co. |
| Tom Green | San Angelo | Ralph Wilson Lease – Byrd Operating Co. |
| Tom Green | San Angelo | Ranger Aviation FBO |
| Tom Green | San Angelo | Ranger Aviation Fuel Storage |
| Tom Green | San Angelo | Rape #1 Lease |
| Tom Green | San Angelo | Republic Waste Services, Trashaway San Angelo Landfill |
| Tom Green | San Angelo | Robertson, J.D. C #1 Lease |
| Tom Green | San Angelo | Robertson, J.D. C #3 Lease |
| Tom Green | San Angelo | Ruth Lease |
| Tom Green | San Angelo | Ryan |
| Tom Green | San Angelo | SamÆs Club #4948 |
| Tom Green | San Angelo | San Angelo Coca-Cola |
| Tom Green | San Angelo | San Angelo Packing Co., Inc. |
| Tom Green | San Angelo | Sawyer |
| Tom Green | San Angelo | Schuch B Lease – Byrd Operating Co. |
| Tom Green | San Angelo | Simpson – Mann |
| Tom Green | San Angelo | Simpson – Mann ôAö |
| Tom Green | San Angelo | Simpson – Mann ôBö |
| Tom Green | San Angelo | Sugg E Tank Battery 1 |
| Tom Green | San Angelo | Sugg E Tank Battery 2 |
| Tom Green | San Angelo | Sugg H Tank Battery 1 |
| Tom Green | San Angelo | TD |
| Tom Green | San Angelo | The Home Depot Store #6807 |
| Tom Green | San Angelo | TNC – Bluffs Substation |
| Tom Green | San Angelo | TNC – San Angelo Distribution Service Center |
| Tom Green | San Angelo | TNC – San Angelo Power Station Substation |
| Tom Green | San Angelo | TNC – San Angelo Transmission Services |
| Tom Green | San Angelo | Twin Buttes Substation |
| Tom Green | San Angelo | TxDOT – San Angelo – San Angelo District Complex |
| Tom Green | San Angelo | TxDOT – San Angelo – San Angelo Maintenance Facility |
| Tom Green | San Angelo | United Services Automobile Association (USAA) |
| Tom Green | San Angelo | Verdad Oil & Gas Corp – Munn 1127 – 1 |
| Tom Green | San Angelo | Verdad Oil & Gas Corp - Tweedy 3, 5 |

Appendix D

| COUNTY | JURISDICTION | FACILITY NAME |
|-----------|--------------|---|
| Tom Green | San Angelo | Verizon San Angelo Lake Nasworthy RSU (TX5178007) |
| Tom Green | San Angelo | Whitehead "A-1" Lease |
| Tom Green | Vancourt | Tom Green County Facilities |
| Tom Green | Wall | Crouch Dierschke/Schniers |
| Tom Green | Wall | Crouch Dierschke/Wall School |
| Tom Green | Wall | Schniers |
| Tom Green | Wall | Wall School – Pritz Unit |
| Tom Green | Wall | Wilde No. 1 |

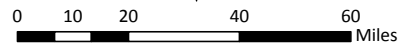
Critical Facilities

Estimated Critical Facilities Placement in CVCOG



LEGEND

- Health Care Facility
- Fire Station
- Police Station
- School
- CVCOG County
- Participating Municipality
- Non-Participating County
- Surrounding Counties
- Interstates
- U.S. Highways



Appendix D

Georeferenced Critical Facilities in Participating Jurisdictions¹

| COUNTY | JURISDICTION | NAME | TYPE | COST (In Thousands) |
|--------|--------------|------------------------------------|----------------|------------------------|
| Coke | Bronte | Bronte Elementary | School | \$1,246 |
| Coke | Bronte | Bronte High | School | \$1,246 |
| Coke | Bronte | Bronte Volunteer Fire Station | Fire Station | N/A |
| Coke | Bronte | Juvenile Detention Center | School | \$6,338 |
| Coke | County | Coke County Sheriff | Police Station | \$1,246 |
| Coke | Robert Lee | Grape Creek Special Campus | School | \$16,889 |
| Coke | Robert Lee | Miles VOC Training (MVT) | School | \$4,534 |
| Coke | Robert Lee | Robert Lee Elementary | School | \$5,397 |
| Coke | Robert Lee | Robert Lee High | School | \$4,753 |
| Coke | Robert Lee | Robert Lee Volunteer Fire Station | Fire Station | N/A |
| Coke | Robert Lee | Trinity EC | School | \$14,470 |
| Coke | Robert Lee | Water Valley VOC | School | \$699 |
| Concho | County | Concho County Sheriff | Police Station | N/A |
| Concho | County | Concho County Sheriff Office | Police Station | \$1,246 |
| Concho | County | Millersview Volunteer Fire Station | Fire Station | \$5,661 |
| Concho | Eden | Concho County Hospital | Medical | N/A |
| Concho | Eden | Eden Elementary | School | \$6,097 |
| Concho | Eden | Eden High | School | \$3,366 |
| Concho | Eden | Eden Police Department | Police Station | N/A |
| Concho | Eden | Eden Volunteer Fire Station | Fire Station | \$5,397 |

¹ Source: HAZUS-MH MR3

Appendix D

| COUNTY | JURISDICTION | NAME | TYPE | COST (In Thousands) |
|-----------|--------------|----------------------------------|----------------|------------------------|
| Concho | Eden | Fairview VOC Training | School | \$3,908 |
| Concho | Eden | Wall Special Programs | School | \$2,150 |
| Concho | Eden | Water Valley VOC | School | \$1,887 |
| Concho | Paint Rock | Paint Rock School | School | N/A |
| Irion | Mertzon | Irion County Sheriff | Police Station | N/A |
| Irion | Mertzon | Irion Elementary | School | N/A |
| Irion | Mertzon | Irion High | School | \$2,693 |
| Kimble | Junction | Junction Elementary | School | \$989 |
| Kimble | Junction | Junction High | School | N/A |
| Kimble | Junction | Junction Middle | School | N/A |
| Kimble | Junction | Junction Police Department | Police Station | \$1,246 |
| Kimble | Junction | Kimble County Sheriff | Police Station | \$330 |
| Kimble | Junction | Kimble Hospital | Medical | N/A |
| McCulloch | County | Alternative Education Program | School | \$980 |
| McCulloch | County | Brady Elementary | School | \$140 |
| McCulloch | County | Brady Fire Department | Fire Station | \$20,458 |
| McCulloch | County | Brady Fire Station | Fire Station | N/A |
| McCulloch | County | Brady High | School | \$127 |
| McCulloch | County | Brady Middle | School | \$648 |
| McCulloch | County | Doole Volunteer Fire Station | Fire Station | \$1,246 |
| McCulloch | County | Heart of Texas Memorial Hospital | Medical | N/A |
| McCulloch | County | Lohn School | School | \$14,374 |
| McCulloch | County | McCulloch County Sheriff | Police Station | \$11,820 |

Appendix D

| COUNTY | JURISDICTION | NAME | TYPE | COST (In Thousands) |
|------------|--------------|--------------------------------------|----------------|------------------------|
| McCulloch | County | North Ward Private | School | \$11,952 |
| McCulloch | County | Rochelle School | School | \$305 |
| McCulloch | County | Rochelle Volunteer Fire Station | Fire Station | \$10,961 |
| McCulloch | County | Voca Volunteer Fire Station | Fire Station | \$1,246 |
| McCulloch | Melvin | Melvin Fire Department | Fire Station | N/A |
| Menard | Menard | Menard County Sheriff | Police Station | \$3,647 |
| Menard | Menard | Menard Elementary | School | N/A |
| Menard | Menard | Menard High | School | N/A |
| Menard | Menard | Menard Junior High | School | N/A |
| Menard | Menard | Menard Volunteer Fire Station | Fire Station | \$1,246 |
| Reagan | Big Lake | Big Lake Volunteer Fire Station | Fire Station | \$925 |
| Reagan | Big Lake | Reagan County Elementary | School | \$9,685 |
| Reagan | Big Lake | Reagan County High | School | \$5,193 |
| Reagan | Big Lake | Reagan County Middle | School | \$102 |
| Reagan | Big Lake | Reagan County Sheriff | Police Station | \$1,246 |
| Reagan | Big Lake | Reagan County Sheriff Dept | Police Station | \$1,246 |
| Reagan | Big Lake | Reagan County Volunteer Fire Station | Fire Station | N/A |
| Schleicher | Eldorado | Eldorado Elementary | School | \$1,550 |
| Schleicher | Eldorado | Eldorado High | School | \$1,550 |
| Schleicher | Eldorado | Eldorado Middle | School | \$1,550 |
| Schleicher | Eldorado | Eldorado Volunteer Fire Station | Fire Station | \$4,126 |
| Schleicher | Eldorado | Schleicher County Medical Center | Medical | \$1,550 |

Appendix D

| COUNTY | JURISDICTION | NAME | TYPE | COST (In Thousands) |
|---------------|---------------------|---|----------------|--------------------------------|
| Schleicher | Eldorado | Schleicher County Sheriff | Police Station | \$102 |
| Schleicher | Eldorado | Schleicher County Sheriff | Police Station | \$38 |
| Sterling | Sterling City | Sterling City Elementary | School | \$1,550 |
| Sterling | Sterling City | Sterling City High | School | \$22 |
| Sterling | Sterling City | Sterling City Junior High | School | \$9 |
| Sterling | Sterling City | Sterling County Sheriff | Police Station | \$1,550 |
| Sutton | Sonora | Lillian M Hudspeth Memorial Hospital | Medical | \$390 |
| Sutton | Sonora | Sutton County Sheriff | Police Station | \$267 |
| Sutton | Sonora | Sonora Police Department | Police Station | \$5,826 |
| Tom Green | County | Carlsbad Volunteer Fire Station | Fire Station | \$5,149 |
| Tom Green | County | Christoval Elementary | School | \$4,142 |
| Tom Green | County | Christoval High | School | N/A |
| Tom Green | County | Christoval Volunteer Fire Station | Fire Station | \$2,743 |
| Tom Green | County | East Concho Volunteer Fire Station | Fire Station | \$1,297 |
| Tom Green | County | Eola Volunteer Fire Station | Fire Station | \$6,452 |
| Tom Green | County | Grape Creek Volunteer Fire Station | Fire Station | \$3,516 |
| Tom Green | County | Montgomery Drive Volunteer Fire Station | Fire Station | \$3,961 |
| Tom Green | County | Pecan Creek Volunteer Fire Station | Fire Station | \$1,246 |

Appendix D

| COUNTY | JURISDICTION | NAME | TYPE | COST (In Thousands) |
|---------------|---------------------|-------------------------------------|--------------|--------------------------------|
| Tom Green | County | Quail Valley Volunteer Fire Station | Fire Station | \$445 |
| Tom Green | County | Special Ed Campus | School | \$3,019 |
| Tom Green | County | Veribest Elementary | School | \$880 |
| Tom Green | County | Veribest High | School | \$1,054 |
| Tom Green | County | Veribest PPCD | School | N/A |
| Tom Green | County | Wall Elementary | School | \$1,969 |
| Tom Green | County | Wall High | School | \$1,296 |
| Tom Green | County | Wall Middle | School | N/A |
| Tom Green | County | Wall PPCD | School | N/A |
| Tom Green | County | Wall SP PROG | School | \$1,246 |
| Tom Green | County | Wall Volunteer Fire Station | Fire Station | \$3,102 |
| Tom Green | County | Water Valley Accelerated | School | N/A |
| Tom Green | County | Water Valley Elementary | School | N/A |
| Tom Green | County | Water Valley High | School | \$4,241 |
| Tom Green | County | Water Valley PPCD | School | \$3,379 |
| Tom Green | County | Water Valley VOC Train | School | \$1,568 |
| Tom Green | County | Water Valley Volunteer Fire Station | Fire Station | \$1,655 |
| Tom Green | County | Water Valley VT | School | \$1,633 |
| Tom Green | San Angelo | Alta Loma Elementary | School | \$356 |
| Tom Green | San Angelo | Angelo Catholic School | School | \$6,289 |
| Tom Green | San Angelo | Angelo Christian School | School | \$7,411 |
| Tom Green | San Angelo | Austin Elementary | School | \$10,252 |
| Tom Green | San Angelo | Belaire Elementary | School | \$3,974 |
| Tom Green | San Angelo | Blackshear Head Start | School | \$3,930 |
| Tom Green | San Angelo | Bonham Elementary | School | N/A |

Appendix D

| COUNTY | JURISDICTION | NAME | TYPE | COST (In Thousands) |
|---------------|---------------------|---|----------------|--------------------------------|
| Tom Green | San Angelo | Bowie Elementary | School | \$11 |
| Tom Green | San Angelo | Bradford Elementary | School | \$1,550 |
| Tom Green | San Angelo | C B P | School | \$5,744 |
| Tom Green | San Angelo | Carver Alter Learn Center | School | \$3,734 |
| Tom Green | San Angelo | Central Freshman Campus | School | \$11 |
| Tom Green | San Angelo | Central High | School | N/A |
| Tom Green | San Angelo | Cornerstone Christian School | School | N/A |
| Tom Green | San Angelo | Crockett Elementary | School | \$3,048 |
| Tom Green | San Angelo | Day Head Start | School | \$980 |
| Tom Green | San Angelo | Fairview Accelerated | Police Station | \$330 |
| Tom Green | San Angelo | Fairview Accelerated | School | \$1,397 |
| Tom Green | San Angelo | Fairview Accelerated DAEP | School | N/A |
| Tom Green | San Angelo | Fairview Behavior Adjustment | School | \$1,246 |
| Tom Green | San Angelo | Fannin Elementary | School | \$1,246 |
| Tom Green | San Angelo | Ft Concho Elementary | School | \$1,246 |
| Tom Green | San Angelo | Glenmore Elementary | School | \$1,246 |
| Tom Green | San Angelo | Glenn Middle School | School | \$1,550 |
| Tom Green | San Angelo | Goliad Elementary | School | \$26,559 |
| Tom Green | San Angelo | Goodfellow Air Force Base Fire Department | Fire Station | N/A |
| Tom Green | San Angelo | Grape Creek BAC | School | \$9,564 |
| Tom Green | San Angelo | Grape Creek Elementary | School | \$13,396 |
| Tom Green | San Angelo | Grape Creek High | School | \$12,679 |
| Tom Green | San Angelo | Grape Creek Middle | School | \$9,013 |
| Tom Green | San Angelo | Grape Creek Special Program | School | \$263 |
| Tom Green | San Angelo | Harris Avenue Baptist Church | School | \$10,664 |

Appendix D

| COUNTY | JURISDICTION | NAME | TYPE | COST (In Thousands) |
|-----------|--------------|---|----------------|------------------------|
| Tom Green | San Angelo | Holiman Elementary | School | \$1,550 |
| Tom Green | San Angelo | Homebound | School | N/A |
| Tom Green | San Angelo | Juvenile Justice Center | School | N/A |
| Tom Green | San Angelo | Lake View High | School | N/A |
| Tom Green | San Angelo | Lee Middle School | School | N/A |
| Tom Green | San Angelo | Lincoln Middle School | School | \$7,940 |
| Tom Green | San Angelo | McGill Elementary | School | \$4,331 |
| Tom Green | San Angelo | Police Department – Crime Prevention | Police Station | \$1,246 |
| Tom Green | San Angelo | Reagan Elementary | School | \$3,320 |
| Tom Green | San Angelo | Rio Vista Head Start | School | N/A |
| Tom Green | San Angelo | River Crest Hospital | Medical | N/A |
| Tom Green | San Angelo | S A C | School | N/A |
| Tom Green | San Angelo | San Angelo Airport Police | Police Station | \$1,246 |
| Tom Green | San Angelo | San Angelo City Marshall | Police Station | \$6,655 |
| Tom Green | San Angelo | San Angelo Community Medical Center | Medical | N/A |
| Tom Green | San Angelo | San Angelo Fire Department | Fire Station | \$914 |
| Tom Green | San Angelo | San Angelo Park Police | Police Station | N/A |
| Tom Green | San Angelo | San Angelo Regional Airport Fire Department | Fire Station | N/A |
| Tom Green | San Angelo | San Angelo Special Programs | School | \$5,481 |
| Tom Green | San Angelo | San Angelo State School | School | \$1,246 |
| Tom Green | San Angelo | San Jacinto Elementary | School | \$1,350 |
| Tom Green | San Angelo | Santa Rita Elementary | School | N/A |

Appendix D

| COUNTY | JURISDICTION | NAME | TYPE | COST (In Thousands) |
|---------------|---------------------|-----------------------------------|-------------------|--------------------------------|
| Tom Green | San Angelo | SCCI Hospital – San Angelo | Medical | \$2,264 |
| Tom Green | San Angelo | Shannon Medical Center | Medical | \$853 |
| Tom Green | San Angelo | St Thomas Episcopal School | School | \$4,255 |
| Tom Green | San Angelo | Tom Green County Sheriff | Police Station | \$13,310 |
| Tom Green | San Angelo | Trinity Early Childhood | School | \$3,915 |
| Tom Green | San Angelo | Trinity Lutheran School | School | \$1,246 |
| Tom Green | San Angelo | Veribest DAEP | School | \$1,246 |
| Tom Green | San Angelo | Wall Special Program (FLC/BAC) | School | \$1,246 |

APPENDIX E



WORKSHOP DOCUMENTATION 1
 PLANNING TEAM AND PUBLIC MEETING DOCUMENTATION 4
 NOTICES..... 5

Workshop Documentation

This Appendix is **For Official Use Only (FOUO)** and may be exempt from public release under the Freedom of Information Act (FOIA).

The Concho Valley Council of Governments (CVCOG) held a series of planning team workshops: one Kickoff Workshop on October 20th; one Risk Assessment Workshop on April 19th; and two Mitigation Workshops on July 27th and 28th. At each of these workshops, stakeholders were informed of steps in the planning process and expressed opinions and volunteered information as necessary. The sign in sheets for each workshop are included below. Public meetings followed each series of workshops and sign in documentation is included in this section as well. For more details on the workshops and planning process, see Section 2.

Figure E-1. Kickoff Workshop, 10.20.10

Concho Valley Council of Governments
Hazard Mitigation Plan Update
Kickoff Workshop
October 20, 2010
SIGN-IN SHEET

| Name | Organization & Title | Phone/Fax | Email |
|------------------|----------------------|--------------|--------------------------------|
| Micale Gonzalez | CVCOG | 325/944-9666 | micale@cvcog.org |
| Roy Blair | Coke Co | 325/762-0103 | Roy.Blair@co.coke.tx.us |
| Bea Ramsey | CVCOG | 325/234-2453 | bea@cvcog.org |
| Teresa Covey | CASA/TCO OAM | 325-457-2289 | teresa.covey@sanangelo.com |
| Danny Neal | McCallum Co | 325-486-8500 | judgenal@hotmail.com |
| Joe Rousler | McCallum Co | 325-597-1461 | CRISLER@CCTA.tx.us |
| Richard Lyden | McCallum Co | 325 376 4989 | |
| Albert Rodriguez | CVCOG | 325-944-9666 | albert@cvcog.org |
| David Denton | Crockett County | 325-392-2965 | David.Denton@co.crockett.tx.us |
| Sharon Key | City of Merid | 325-396-4706 | meridsharonkey@merid.com |
| Billy Thomas | City of Eder | 325-965-2211 | billthomas@cityofeder.com |
| Zac Pope | ASU | 325-942-2140 | zpope@angelo.edu |

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H₂O PARTNERS

Concho Valley Council of Governments
 Hazard Mitigation Plan Update
 Kickoff Workshop
 October 20, 2010

SIGN-IN SHEET

| Name | Organization & Title | Phone/Fax | Email |
|--------------|---------------------------|-------------------|----------------------------|
| Judy Miller | City Mgr. City of Sonora | 325-3512555, x315 | jmillers@sonoratax.net |
| Tim Sacatt | Sonora Police Dept. Chief | 325-397-3938 | timjacatt@sonoratax.us |
| Steve Mild | Tam Green SW | 325-655-8111 | steve.mild@cedarjoints.com |
| Jim Johnson | Mulvin Twp. Councilmember | 325-286-4361 | jjohnson94@gmail.com |
| Leon Spender | Taylor County | 325-835-9361 | leon.spender@taylor.tx.us |
| Jeff Whitson | Menard OEM | 325-346-5096 | jw1254@yahoo.com |
| Allen Amos | Comanche Co JUDGE | 325-732-4351 | amosatm@comanche.tx.us |
| Hj Turner | SASIS | 325-374-6708 | h.turner@sttsd.org |
| Ray Perry | COSEC/Kern County Co. EMT | 325-671-4230 | ray.perry@kerncounty.com |
| ALLEN JONES | Stearns County | 325-378-3481 | ajones@stearns.tx.us |
| Mike Anson | Spurlock County | 325-655-3312 | mike.anson@spurlock.tx.us |
| Tim Luboff | CCSA, Stormwater Engineer | 325-677-4202 | tim.luboff@sanangelo.com |




H₂O PARTNERS

Concho Valley Council of Governments
 Hazard Mitigation Plan Update
 Kickoff Workshop
 October 20, 2010

SIGN-IN SHEET

| Name | Organization & Title | Phone/Fax | Email |
|-----------------|------------------------------------|--------------|---------------------------------|
| Pat Martindale | City of Brown City Secretary | 325/475-3801 | 325/473-2048 brnrite@wcc.net |
| Ray Jones | City of Robert Lee, City Secretary | 325/453-1131 | robertlee@wcc.net |
| Quinn Walker | CCSA City Secretary | 325-677-4203 | quinn.walker@wcc.net |
| Ann Clark | Comanche County | 325-732-4331 | ann.clark@comanche.tx.us |
| Charlie Bradley | Schleicher County | 325-853-2766 | charlie1982@gmail.com |
| T.J. Rodriguez | Schleicher County | 853-3456 | t.rodriguez@hotmail.com |
| Jerry Huffman | TDEM RLO | 325-513-2618 | jerry.huffman@txdps.state.tx.us |

Figure E-2. Risk Assessment Workshop, 4.20.11



H₂O PARTNERS


Concho Valley Council of Governments
 Hazard Mitigation Plan Update
 Risk Assessment Workshop
 April 20, 2011

SIGN-IN SHEET

| Name | Organization & Title | Phone/Fax | Email |
|------------------|-----------------------|--------------|----------------------------------|
| Tom Aiken | Organization & Title | 325-835-4361 | tom@kenzie.com |
| Ralph Sims | Sterling County Judge | 325-378-3481 | ralph@sterlingcountytx.us |
| Albert Rodriguez | COCOG | 325-944-9666 | albert@cvcoq.org |
| Teresa Carey | Coke Co | 325-657-9289 | teresa@cokecountytexas.us |
| Allison Barnes | Comanche Co Judge | 325-772-4132 | allison@comanche-county-texas.us |
| Chris Eissler | H2O Partners | 512-465-9695 | ceissler@h2opartners.com |

3

Figure E-3. Mitigation Workshop, 7.27.11



H₂O PARTNERS


CVCOG Hazard Mitigation Plan Update
 Mitigation Workshop
 July 27, 2011

SIGN-IN SHEET

| Name | Organization & Title | Phone/Fax | Email |
|------------------|-------------------------|--------------|------------------------------|
| Robb Linn | Robertson | 325-453-2851 | robb@robertson.com |
| James Kim | CVCOG | 325-453-4531 | Jim@cvcoq.org |
| David Hall | Schleicher County Judge | 325-853-2776 | dhall@schleichercountytx.us |
| Nicole Gonzalez | City of San Angelo | 325-651-4434 | nicole@sanangelo.texas.gov |
| Roy Blain | Coke Co | 325-657-3264 | roy.blain@cokecountytexas.us |
| Shirley Allen | City of Brown | 325-287-2338 | shirley@brown-texas.gov |
| Ron Perry | City of Strawn | 325-657-9230 | ron.perry@strawntexas.gov |
| Teresa Carey | " | 325-657-9289 | teresa@cokecountytexas.us |
| Albert Rodriguez | COCOG | 325-944-9666 | albert@cvcoq.org |
| Jeff Whitson | Monroe Co | 409-4251 | jwhitson@monroetexas.gov |

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Figure E-4. Mitigation Workshop, 7.28.11



H₂O PARTNERS

CVCOG Hazard Mitigation Plan Update
Mitigation Workshop
July 28, 2011
SIGN-IN SHEET


| Name | Organization & Title | Phone/Fax | Email |
|------------------|-----------------------|----------------|------------------------|
| Tom Allen | Jury Court | 325-835-4361 | |
| Fred Deaton | Crockett County Judge | 325-321-3945 | |
| Ralph Sides | Steering Comm. Judge | (325) 373-1181 | rsides@co.siding.tx.us |
| Allen Sims | Cocho County Judge | (325) 732-4321 | cochojudge@yahoo.com |
| Cap Muehl | H2O Partner | | |
| Melissa Jann | " | | |
| Albert Rodriguez | CVCOG | | |
| Nichole Gonzalez | CVCOG | | |
| | | | |
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Planning Team and Public Meeting Documentation

As discussed in Section 2, a series of three public meetings were held following each of the workshops. Documentation in the form of sign in sheets for each of the meetings follows. However, there isn't any documentation for the October 20, 2010 public meeting because no one from the public attended the meeting.

Figure E-5. Public Meeting, 4.19.11



H₂O PARTNERS

Concho Valley Council of Governments
Hazard Mitigation Plan Update
Public Meeting
April 19, 2011
SIGN-IN SHEET

| Name | Organization & Title | Phone/Fax | Email |
|----------------|----------------------|--------------|--------------------------|
| Cap Muehl | H2O Partner | 588 328 4151 | capm@h2opartnersusa.com |
| Craig Chandler | H2O Partner | 512-469-9695 | craig@h2opartnersusa.com |
| John Hartz | CVCOG | 915-548-9666 | john@cvco.org |
| | | | |
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Figure E-6. Public Meeting, 7.27.11



H₂O PARTNERS

CVCOG Hazard Mitigation Plan Update
Hazard Mitigation, Public Meeting
July 27, 2011

SIGN-IN SHEET

| Name | Organization & Title | Phone/Fax | Email |
|-------------------------|----------------------|---------------------|--------------------------------|
| <i>Robert Rodriguez</i> | <i>CVCOG</i> | <i>325-944-9666</i> | <i>grbmt@cvcog.org</i> |
| <i>Nicole Gonzalez</i> | <i>CVCOG</i> | <i>325-944-9666</i> | <i>nicole@cvcog.org</i> |
| <i>Calvin</i> | <i>H2O</i> | <i>818-324-4751</i> | <i>calvin@h2opartners.com</i> |
| <i>Melissa Loma</i> | <i>H2O</i> | <i>"</i> | <i>melissa@h2opartners.com</i> |
| | | | |
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Notices

A public notice to announce CVCOG’s participation in the Hazard Mitigation Plan Update was posted for both public meetings.

Figure E-7. Public Notice, 4.19.11

The Concho Valley Council of Governments (CVCOG) will hold a public meeting as part of an ongoing effort to develop the 2010 Hazard Mitigation Plan Update, "*Hazard Mitigation Plan Update for the CVCOG Region*" The meeting will be held:

Where: Concho Valley Regional Training Center
2801 W. Loop 306, Ste A
San Angelo, TX 76904

When: April 19, 2011
Time: 6:00 p.m.

Driving Directions:

The purpose of the open meeting is to provide a project overview and solicit information from the community that can help the project team in identifying and analyzing hazards affecting residents, as well as recommending possible actions that can be taken to reduce the impact of those hazards. **The public is invited and encouraged to attend the meeting.** If you cannot attend the public meeting, information about the planning process and a public participation survey are available at <http://www.surveymonkey.com/s/5N7BC3J>.

The goal of the Hazard Mitigation Plan for CVCOG is to minimize or eliminate the long-term risk to human life and property from known hazards by identifying and implementing cost-effective mitigation actions. *Mitigation* is defined by FEMA as *sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects.*

Questions about the Hazard Mitigation Plan should be addressed to H2O Partners, planning consultants

Figure E-8. Public Notice, 7.27.11

The Concho Valley Council of Governments (CVCOG) will hold a public meeting as part of an ongoing effort to develop the 2010 Hazard Mitigation Plan Update, "*Hazard Mitigation Plan Update for the CVCOG Region*" The meeting will be held:

Where: Concho Valley Regional Training Center
2801 W. Loop 306, Ste A
San Angelo, TX 76904

When: July 27, 2011
Time: 6:00 p.m.

Driving Directions:

The purpose of the open meeting is to provide a project overview and solicit information from the community that can help the project team in identifying and analyzing hazards affecting residents, as well as recommending possible actions that can be taken to reduce the impact of those hazards. **The public is invited and encouraged to attend the meeting.** If you cannot attend the public meeting, information about the planning process and a public participation survey are available at <http://www.surveymonkey.com/s/5N7BC3J>.

The goal of the Hazard Mitigation Plan for CVCOG is to minimize or eliminate the long-term risk to human life and property from known hazards by identifying and implementing cost-effective mitigation actions. *Mitigation* is defined by FEMA as *sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects.*

Questions about the Hazard Mitigation Plan should be addressed to H2O Partners, planning consultants