MULTI-JURISDICTIONAL MITIGATION PLAN

Barton County, Kansas

Submitted by:

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Table of Contents

Mitigation Action Plan (MAP)

Hazard Mitigation Plan

1.0 Introduction

This Hazard Mitigation Plan is a guide for Barton County citizens to prepare for possible natural disaster events by taking action to help mitigate the effects of potential hazards. The plan was prepared for Barton County and participating local jurisdictions through the efforts of the Mitigation Planning Committee (MPC) in conjunction with E-Fm Consulting, LLC. As part of an overall multi-jurisdictional planning effort, this plan has been created by the participating entities to comply with the Disaster Mitigation Act of 2000 (Public Law 106-390, hereinafter referred to as DMA 2000).

Section 1.0 provides a general introduction to the Barton County Multi-Jurisdictional Hazard Mitigation Plan. It is organized into the following five sections:

1.1. Background
1.2. Purpose
1.3. Scope
1.4. Authority
1.5 Paper Reduction and Elimination

1.1 Background

Natural phenomena such as floods, tornadoes, and severe storms, are a part of the world around us. As part of nature, their occurrence is inevitable; there is little we can do to control their force and intensity. However, through hazard mitigation planning, we can minimize the impact these events have on our lives and property.

Hazard mitigation is simply a technical term for reducing risk to people and property from natural hazards. It includes structural measures, such as protecting buildings and infrastructure from the forces of wind and water, as well as non-structural measures, such as natural resource protection and wise floodplain management. These activities can help protect both existing development and, by mitigating potential hazards to new construction, future development. It is widely accepted that the most effective mitigation measures are implemented at the local government level, where decisions on the regulation and control of development are ultimately made.

The easiest and best way a jurisdiction can develop serious intentions about hazard mitigation is through the development and adoption of a local hazard mitigation plan. A mitigation plan will ensure that measures to reduce the present and future vulnerability of a jurisdiction are thoroughly considered before, during, and after a disaster strikes.

Mitigation planning in compliance with the requirements of DMA 2000 offers many benefits. These include:

- saving lives and property
- saving money
- speeding recovery following disasters
- reducing future vulnerability through wise development / redevelopment
- expediting both pre-disaster and post-disaster grant funding by demonstrating a firm commitment to improving jurisdiction health and safety

Recently, both the State of Kansas and the U.S. Congress made the development of a hazard mitigation plan a specific eligibility requirement for any local jurisdiction applying for mitigation grant funding. Jurisdictions with an adopted plan will therefore become pre-positioned and more apt to receive any available mitigation funds.

More importantly, mitigation planning has the potential to produce long-term and recurring benefits by breaking the repetitive cycle of disaster loss. A core assumption of mitigation is that current dollars invested in mitigation practices will significantly reduce the demand for future dollars by lessening the amount needed for emergency recovery, repair and reconstruction in the event of a disaster. These mitigating practices will assist residents, their businesses and local industries to recover faster in the wake of a disaster, enabling the jurisdiction's economy to re-establish itself sooner and with less interruption.

Mitigation planning will also lead to benefits beyond the main purpose of hazard vulnerability reduction. Measures such as the acquisition or regulation of land in known hazard areas can help achieve jurisdictional goals such as preserving open space, maintaining environmental health and natural features, and enhancing recreational opportunities.

1.2 Purpose

As mentioned above, this plan was created in an effort to help Barton County and participating local jurisdictions to come into compliance with the requirements of DMA 2000.

The purpose of this Hazard Mitigation Plan is:

- To protect against the loss of life in the event of a disaster
- To preserve the safety of persons and property by reducing the risk of potential damage and economic loss in the event of a disaster
- To qualify for additional grant funding, both pre- and post-disaster
- To qualify for participation in the National Flood Insurance Program (NFIP), and the Community Rating System (CRS) to receive additional credits under the program
- To speed recovery and redevelopment following future disaster events
- To demonstrate a firm local commitment to hazard mitigation principles
- To comply with both state and federal legislative requirements for local hazard mitigation plans

1.3 Scope

This Multi-Jurisdictional Mitigation Plan was developed under a Federal Emergency Management Agency (FEMA) hazard-planning grant awarded to Barton County through the Kansas Division of Emergency Management. Barton County approved E-Fm Consulting, LLC's contract on June 16, 2008.

The plan identifies the natural and state-mandated hazards associated with the county, but is developed primarily to address hazards classified as high and moderate in the probability and vulnerability (severity) analysis model. Hazards classified in the low or negligible categories were eliminated because of their low rating priority or because of inadequate county infrastructure or fiscal capabilities. The MPC may add specific hazards to the prioritized hazards list to ensure local jurisdiction planning needs are met. Hazards will be reviewed on a routine basis with plan updates as circumstances change.

The geographic scope for the Hazard Mitigation Plan includes both the incorporated and unincorporated areas of Barton County, as provided in Section 2.0 of this plan.

1.4 Authority

Local governments in Kansas have a wide range of tools available to them for implementing mitigation programs, policies, and actions. In implementing a mitigation plan or specific action, a local jurisdiction may utilize any or all of the four broad types of government authority granted by the State of Kansas. Those four types of authority are defined as: (a) regulation, (b) acquisition, (c) taxation, and (d) spending.

Kansas' local governments have been granted broad regulatory authority in their jurisdictions. Kansas

General Statutes (K.A.R.) bestow the general police power on local governments, allowing them to enact and enforce ordinances which define, prohibit, regulate or abate acts, omissions, or conditions detrimental to the health, safety, and welfare of the people, and to define and abate nuisances (including public health nuisances).

Since hazard mitigation can be included under the police power (as protection of public health, safety, and welfare), towns, cities, and counties may include requirements for hazard mitigation in local ordinances. Local governments may also use their ordinance-making power to abate “nuisances”, which could include, by local definition, any activity or condition making people or property more vulnerable to any hazard. After approval of the Multi-Jurisdictional Plan by the State of Kansas and FEMA (ref. Sec. 2.2), the plan can then be implemented by the Board of County Commissioners and the Executive Officers of the local jurisdictions under the authority of and by the police powers bestowed on them by the State of Kansas.

This Plan has been developed to be in accordance with current rules and regulations governing local hazard mitigation plans. The Plan shall be routinely monitored to maintain compliance with the following legislation:

1. Home Rule Powers: Article 12 Section 5 – Kansas Constitution;
2. Kansas Emergency Planning and Jurisdiction Right-to-Know Act, K.S.A. 65-5701 through 65-5711, and Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III, Emergency Planning and Jurisdiction Right-to-Know Act (EPCRA), Pub. L. 99-499;
   (a) Federal Civil Defense Act of 1950, Pub. L. No. 81-920, as amended
   (b) K.A.R. 56-2, Standards for Local Disaster Agencies
3. The Robert T. Stafford Disaster Relief and Emergency Assistance Act as amended by the Disaster Mitigation Act of 2000 (Public Law 106-390 – October 30, 2000).

1.5 Paper Reduction and Elimination

It is the goal of this planning process to comply with the overall direction to reduce or eliminate the use of paper. The 1998 Government Paper Elimination Act (GPEA), and consequent clarification by the Office of Management and Budget, asks all entities to consider eliminating paper as the vehicle to provide information or data to and from the Federal government. This mitigation plan is intended to be read, maintained, and edited in its online version.

As an interim step towards this goal, the plan can be printed using the standardized portable document format (PDF). When printed in this format, the formatting that is seen on-the-screen has been reduced and partially compacted in order to save paper when ultimately printed. Consequently, text may not carry with the associated table or image to the next page. The full content will be included in the PDF file. Thank you for your consideration of the Planning Committee's goal.

2.0 Planning Process

Hazard Mitigation is defined as any sustained action taken to reduce or eliminate long-term risk to human life and property from hazards. Planning is the process of setting goals, developing strategies, and outlining tasks and schedules to accomplish those goals.

Hazard mitigation planning is the process through which natural hazards that threaten jurisdictions are identified, the probability and severity of those hazards are determined and prioritized, mitigation goals are set, and appropriate strategies are created to meet those goals.

Hazard mitigation planning is required for state and local governments to maintain their eligibility for certain federal disaster assistance and hazard mitigation funding programs. Jurisdictions at risk from natural disasters can ill afford to jeopardize this funding.

Each year, natural disasters in the United States kill hundreds of people, injure thousands more and destroy private and public property and infrastructure. Nationwide, taxpayers pay billions of dollars annually to help jurisdictions, organizations, businesses and individuals recover from disasters. These monies only partially reflect the true cost of disasters, because additional expenses to insurance companies and non-government organizations are not reimbursed by tax dollars.

Additionally, many natural disasters are predictable. Many more are repetitive, often with the same results. Many of the damages caused by these events can be alleviated or even eliminated.

FEMA, the Federal Emergency Management Agency, now a part of the Department of Homeland Security, has targeted reducing losses from natural disasters as one of its primary goals. Hazard mitigation planning and subsequent implementation of projects, measures, and policies developed through those plans, is the primary mechanism for achieving these goals. As a result of successful mitigation planning, when mitigation projects have been implemented, damages have been reduced. More importantly, proactive mitigation planning at the local level can help reduce the cost of disaster response and recovery to property owners and government by protecting critical facilities, reducing liability exposure, and minimizing overall jurisdiction impacts and disruption.

2.1 Participants

The Mitigation Planning Committee (MPC) represents participating local governments, including incorporated cities, towns, schools and other qualified government entities (referred to as sub-jurisdictions) of Barton County. The MPC seeks a coordinated and active mitigation planning process with full participation in plan development and implementation. This integrated planning process combines the risks, issues, goals, and mitigation measures of each jurisdiction to form a Multi-Jurisdictional Mitigation Plan.

Representatives from participating jurisdictions attended committee meetings and completed planning activities during the drafting stage of the plan. The minimum level of committee participation for each jurisdiction was achieved by one or more representatives that were actively involved in the planning activities conducted during the drafting phase of the plan. Persons authorized as representatives to serve on the committee for any given jurisdiction are provided in Table 2.1 (1).

The development of this Multi-Jurisdictional Mitigation plan, which was completed in November 2010, included input and comment from individuals, local and state public agencies, private groups, business operators and owners. The Barton County Mitigation Planning Committee itself was made up of the following individuals:

TABLE 2.1 (1) BARTON COUNTY MITIGATION PLANNING COMMITTEE

Jurisdiction	Responsible Party	Position	Phone	Email
Barton County	Amy Miller	Emerg. Mgnt. Director	620-793-1919	emermgnt@bartoncounty.org
Barton County	BJ Wooding	County Cartographer / GIS	620-793-1802	mapping@bartoncounty.org
Barton County	Lily Akings	County Health Dept.	620-793-1902	lakings@bartoncounty.org
Barton County	Donna Zimmerman	Clerk / PIO	620-793-1835	clerk@bartoncounty.org
Barton County	Dale Phillips	Director, Road & Bridge - Noxious Weed	620-793-1936	dphillips@bartoncounty.org
Barton County	Barbara Konrade-Stierlen	County Appraiser	620-793-1821	appraiser@bartoncounty.org
Great Bend	Dawn Jaeger	Assnt City Administrator	620-793-4140	dawn@greatbendks.net
Great Bend	Bob Robinson	Police Captain	620-793-4120	bobrobison@greatbendks.net
Ellinwood	Chris Komarek	Fire Chief / Utility Supt	620-564-3046	ellinwoodfire@firehousemail.com
Olmitz	Darrell Keener	Mayor	620-586-3355	dkeener@ruraltel.net
Claflin	Doug Hubbard	Fire Chief / EMS Dir.	620-587-3498	claflinfd@hbcomm.net
Barton County Community College	Mark Dean	Dean of Administration	620-792-9235	dean@bartonccc.edu
USD 431	Alan Charles	Principal	620-653-4549	acharles@usd431.net
USD 431	Bill Lowry	Supt.	620-292-7073	blowry@usd431.net
Wet Walnut Watershed	Ben Rogers	Manager	785-222-2812	wwcwj@gbta.net
Rolling Hills Electric Coop	David Miller	Operations Manager	785-472-4021	dmiller@rollinghills.coop
Ark Valley Electric Cooperative	Bob Hall	General Manager	620-662-6661	bhall@arkvalley.com
KS Dept. of Agriculture	Steve Samuelson	NFIP Specialist	785-296-4622	steve.samuelson@kda.ks.gov

Participating Jurisdictions

The following jurisdictions were invited to participate in the Barton County planning process. Plan participation was accomplished by jurisdictional representation in one of three ways: (1) direct representation by a person from the jurisdiction, or (2) delegation of jurisdictional representation to a

qualified third party, or (3) delegation of jurisdictional representation to a consultant contracted for this project. Barton County jurisdictions chose the third form of representation which appoints the consultant as Plan Author and, where jurisdictions lack the resources or personnel to attend all planning meetings, delegates the authority to the consultant to represent them. Resolutions authorizing the Hazard Mitigation Plan consultant to represent them and to prepare the plan on their behalf are included in the Appendix. Jurisdictions that have promulgated authorization for representation have met the minimum criteria for participation as set forth under "Requirements" and are therefore considered by the Barton County Planning Committee as eligible participating jurisdictions.

TABLE 2.1 (2) JURISDICTIONS

Barton (UnInc.)	UnInc
Albert	Inc
Claflin	Inc
Ellinwood	Inc
Galatia	Inc
Great Bend	Inc
Hoisington	Inc
Olmitz	Inc
Pawnee Rock	Inc
Susank	Inc
Barton County Community College	School
USD 112 - Claflin	School
USD 355 - Ellinwood	School
USD 428 - Great Bend	School
USD 431 - Hoisington	School

This plan was prepared under the direction of the MPC with the guidance and support of E-Fm Consulting, LLC, of Lawrence, Kansas.

Barton County retained the services of E-Fm Consulting, LLC, 100 Riverfront Road, Suite A, Lawrence, Kansas 66044, to attend planning meetings, provide input and guidance for the hazard and risk analysis for completion of the Mitigation Plan, and publish the reports to the county’s online hazard and vulnerability website. Participants from E-Fm Consulting, LLC included the following personnel:

Brett Runyon, Technical Support
Dennis K. Hayward, Technical Support
Richard S. Hernandez, Technical Support
Nick Maciaszek, GIS/Maps
Elizabeth Spainhour, Programming

The MPC determined that only those jurisdictions that met the participation components listed below were considered as a jurisdiction in this multi-jurisdictional mitigation plan.

Requirements

- Participate in planning meetings or coordinate with EM
- Submit inventory and summary of reports and plans relevant to hazard mitigation

- Submit unique hazards that affect the jurisdiction, with relevant documentation
- Submit a description of what is at risk, including local critical facilities and infrastructure, and which hazards posed a risk to them
- Submit a description and map(s) of local land-use patterns (current, proposed/expected)
- Develop and adopt goals and objectives for jurisdiction
- Develop mitigation actions with an analysis/explanation of why those actions were selected
- Prioritize actions emphasizing relative cost-effectiveness
- Complete questionnaire with implementation strategy
- Review and commented on draft plan
- Host opportunities for public involvement

As a minimum commitment, participating jurisdictions who will be adopting this plan have elected to conduct annual interviews and/or smaller meetings with civic groups, the public and other stakeholders. This will be accomplished through incorporating discussion of the mitigation plan into other regularly attended meetings. Participating jurisdictions will consider annual fliers, newsletters, newspaper advertisements, and radio/TV announcements, and will implement some or all of the above at the discretion of the jurisdiction.

Participating Private Non-Profit (PNP's), Rural Electric Cooperatives (REC's), Others

The following entities were invited to participate in the development of the Barton County Multi-Jurisdictional Mitigation Plan. Any Actions pertaining to the PNPs and RECs are included in Section 5.2 under Barton County (UnInc.).

TABLE 2.1 (3) PNP's & REC's

Entity	Responsible Party	Position	Phone	Email
Ark Valley Electric Cooperative	Bob Hall	General Manager	620-662-6661	bhall@arkvalley.com
Rolling Hills COOP	Mike Liggett	Line Supervisor	785-378-3151	mliggett@rollinghills.coop
Wet Walnut Creek Watershed	Ben Rogers	Manager	785-222-2812	wwcwj@gbta.net
Big Bend Groundwater District No 5	Sharon Falk	Manager	620-234-5352	
Post Rock Rural Water District	Keli Habiger	Executive Administrative Assistant	785-472-4486	khabiger@postrockrwd.com

2.2 Plan Adoption

The Barton County plan was developed as a multi-jurisdictional plan. Therefore, to meet the requirements of Section 322 of the local hazard planning regulations, the final plan will be adopted by each jurisdiction. This section documents the adoption process of each local government in order to demonstrate compliance with this requirement. The plan will formally be adopted following conditional approval of FEMA Region VII’s review.

Table 2.2 (1) identifies the local governments that participated in the planning process and will adopt the plan. According to the participation components set by the MPC (see above Requirements, Section 2.1 Participants), these jurisdictions have met satisfactory participation requirements of this hazard mitigation

plan.

NOTE: Resolutions from each Jurisdiction adopting the Plan listed in Table 2.2 (1) are provided in the appendix.

TABLE 2.2 (1) ADOPTION OF PLAN - §201.6(c)(5)

Jurisdiction	Date of Adoption
Barton County (UnInc)	April 4, 2011
Barton County Community College	May 19, 2011
City of Albert	June 6, 2011
City of Claflin	May 9, 2011
City of Ellinwood	May 10, 2011
City of Galatia	June 7, 2011
City of Great Bend	May 16, 2011
City of Hoisington	May 9, 2011
City of Olmitz	JUne 8, 2011
City of Pawnee Rock	May 2, 2011
City of Susank	May 1, 2011
USD 355	May 18, 2011
USD 428	May 9, 2011
USD 431	May 2, 2011
USD 112	June 27, 2011

2.3 Documentation of the Planning Process

The Barton County Multi-Jurisdictional Mitigation Plan is the result of a collaborative effort between Barton County citizens, public agencies, and regional, State, and Federal organizations. Public participation played a key role in development of goals and mitigation projects. Interviews were conducted with the Barton County Emergency Management Coordinator, elected officials, and other organizations in the jurisdiction. As a culmination of the entire public, private and governmental participation and effort, two distinct public meetings were held to gain final input and comment from Barton County residents.

In order to effectively notify the adjoining counties and invite them to contribute to the planning process, the Emergency Manager for each county was notified via mail and/or email. In Kansas, the Emergency Manager for each county has been designated as the county point-of-contact for Mitigation Planning. Each Emergency Manager is responsible to report to its Commissioners, and other administrative entities, regarding any activity necessary to comply. Invitations to apply for the FEMA and State funded grants for Mitigation Planning were sent to the 105 Emergency Managers in Kansas as the designated point-of-contact for each County Commission.

The entities listed in the appendix under the Initial Contacts List were notified or contacted for every meeting conducted as part of the planning process. In addition, the Great Bend Tribune (official publication for the county), Hoisington Dispatch, and Ellinwood Leader newspapers were used for public

notification. The newspapers are regional publications with circulation in adjoining counties.

Barton County utilized the process recommended by the Kansas Division of Emergency Management (KDEM) to develop this Multi-Jurisdictional Mitigation Plan. Barton County's mitigation planning process was initiated on June 16, 2008 when the county was awarded a contract to E-Fm Consulting, LLC. A comprehensive hazard analysis was conducted prior to mitigation planning, and was completed in February 2005. The natural hazards analysis was updated in 2010 for this mitigation planning process. The hazard analysis is a comprehensive assessment and prioritization of risks and vulnerability in the county. The assessment is published electronically as a stand-alone document consisting of 12 sections, and forms the basis for this mitigation plan.

Barton County developed this Multi-Jurisdictional Mitigation Plan in coordination with E-Fm Consulting, LLC. Funding was provided by FEMA and the State of Kansas via a grant through the Kansas Division of Emergency Management. The overall process to prepare this mitigation plan was developed by E-Fm Consulting, LLC, Barton County Emergency Management, and the Barton County Mitigation Planning Committee (MPC).

Planning

E-FM Consulting was retained to represent Barton County as plan author and provide support services to develop the hazard mitigation plan. E-Fm prioritized the natural hazards in coordination with the MPC based on likelihood and severity of each hazard for the jurisdiction. These data were used to develop the goals, objectives, and mitigation strategy for Barton County.

Amy Miller, Barton County Emergency Management Coordinator, served as the primary official contact for the county. The MPC consisted of representatives invited from local government agencies, private and public entities, and local businesses. The Barton County MPC conducted meetings and numerous in-house discussion sessions over the course of the planning process. A number of officials at the Federal, State, and local government level were contacted throughout the planning process for specific information and technical expertise.

The Barton County MPC announced and held an initial planning meeting on March 23, 2010 to present and review the natural hazards and vulnerability prioritization assessment. The indexed (prioritized) hazards were discussed, and a wide range of mitigation actions were identified for high and moderate hazards and disseminated to committee members for further review and approval prior to the first public meeting for the county. FEMA categories for actions were also discussed in relation to projects and actions, with emphasis on implementation capabilities at the local level for prioritized projects/actions. A review of the mitigation strategy was followed by a discussion of sub-jurisdiction planning and distribution of data packets to local jurisdictions. In addition, the Mitigation Planning Committee members were provided electronic access to the county's draft plan for review and comment on the overall draft strategy to assist with development of projects and actions for each jurisdiction.

In the time period between this planning meeting and the first distinct public meeting, the following events took place in order to obtain local input and complete the overall process. The actual time for any one jurisdiction to accomplish its tasks varies widely.

- Review of the overall plan by participating jurisdictions
- Discussions within each jurisdiction for unique hazards
- Solicit members of the public that may have input when identified
- Reach consensus on actions; both mulit- and jurisdiction specific
- Provide any final data to consider
- Agree on the initial draft

The first public meeting was held on September 21, 2010, to present the multijurisdictional draft plan to the MPC and general public. The intent of the first public meeting is to present the draft plan developed by the current efforts of the public, private and governmental participants. It is intended to provide another opportunity for any further public comment on the plan. Comment forms were provided along with the draft plan for interested parties to comment in writing to the MPC. Comment forms were provided along with the draft plans for interested parties to comment in writing to the MPC. Copies of the draft plan were made available at the Emergency Management Coordinator's office, Barton County Clerk's Office, Independent Township Library, Ellinwood Library, Hoisington Public Library, and online (electronically) on the county website under "Current Events and Important News". Notification of the first public meeting was also published in the Great Bend Tribune (general ad and legal sections) on September 9, 10, 12, 14, 16, 19, and 21, 2010. The Hoisington Dispatch and Ellinwood Leader newspapers ran the notice on September 17, 2010. Barton County Emergency Management and local governments posted notices in public buildings, and also provided notices to the Chambers of Commerce. E-Fm Consulting, LLC, provided additional mail invitations via postcard on September 6th, 2010, and made the plan available on the website. The draft plan was available for public comment through October 5th, 2010. The MPC received written comment on the first draft plan.

The second public meeting was held on October 12, 2010, to present the multijurisdictional draft plan to the MPC and general public. Comment forms were provided along with the draft plan for interested parties to comment in writing to the MPC. Copies of the draft plan were made available at the Emergency Management Coordinator's office, Barton county Clerk's Office, Independent Township Library, Ellinwood Library, Hoisington Public Library, and online (electronically) on the county website under "Current Events and Important News". Notification of the first public meeting was also published in the Great Bend Tribune (general ad and legal sections) on September 28, October 1, 3, 5, 7, 10 and 12, 2010. The Hoisington Dispatch and Ellinwood Leader newspapers ran the notice on October 8, 2010. Barton County Emergency Management and local governments posted notices in public buildings, and also provided notices to the Chambers of Commerce. E-Fm Consulting, LLC, provided additional mail invitations via postcard on September 28, 2010, and made the plan available on the website. The draft plan was available for public comment through October 26, 2010. The MPC received written comment on the final draft plan.

Meeting sign-in logs, jurisdictional authorization forms, and public comment forms can be found in the appendix.

Public Participation

Efforts were made to solicit public input throughout the planning process using announcements and public notification via local newspaper publications, and meeting notifications by first-class mail, phone, and email. Two distinct public meetings were held to obtain any further input from the community, which included notice to businesses, non-profits, government agencies, and any others interested in the planning process. Additionally, the Emergency Management Coordinator scheduled meetings with interested parties within the county to review planning, code, land plan and flood zone planning initiatives in other departments.

Public input was solicited by direct written notices and announcement of the mitigation planning process, with public meeting schedules announced two weeks prior to convening. Written comments were received from the general public for the Barton County Mitigation Plan during the planning process.

The county provided a copy of the final draft document for public review at the Barton County Emergency Management Office, Barton County Clerk's Office and the aforementioned public libraries prior to presentation of the final draft plan at the second public meeting. The participating jurisdictions

and the County Commission tentatively approved the plan for submission to the State Mitigation Officer on (date), at which time no further public and private comment was received.

Summary

In short, the process included the following steps, listed in the order in which they were undertaken:

1. Natural Hazards Identification and Risk Assessment
2. County Vulnerability Assessment
3. Mitigation Capabilities Assessment
4. Mitigation Strategy (Goals, Objectives, and Actions)
5. Plan Maintenance

Step 1, the hazard identification and assessment, describes and analyzes the natural phenomena present in Barton County that can threaten human life and damage property. It includes historical data on past hazard occurrences, and establishes hazard profiles and risk indices based upon hazard frequency, magnitude and impact. The risk rating forms the basic foundation for focusing and prioritizing mitigation efforts.

Step 2, the county vulnerability assessment, was completed predominantly through investigative research along with the use of available data at the time of the study. It includes narrative descriptions on community characteristics, such as Barton County's geographical, economic, and demographic profiles, and discusses future development trends and implications for hazard vulnerability. To graphically depict hazard vulnerability, this section also included readily-accessible county vulnerability assessment maps.

Step 3, the mitigation capabilities assessment, provides a comprehensive examination of Barton County's capacity to implement meaningful mitigation strategies, and identifies existing opportunities for program enhancement. Capabilities addressed in this section include staff and organizational capability, technical capability, policy and program capability, fiscal capability, legal authority and political willpower. The purpose of this assessment is to identify any existing gaps, weaknesses or conflicts in local programs/activities that may hinder mitigation efforts, or to identify those local activities that can be built upon in establishing a successful county hazard mitigation program.

Steps 1, 2, and 3 form the basis for designing the community's hazard mitigation strategy.

Step 4, the conclusion of Steps 1, 2, and 3, results in the formation of jurisdiction strategy and sets the stage for developing and adopting a meaningful hazard mitigation plan for Barton County. These four steps help make the plan strategic and functional for implementation purposes.

Step 5, which follows the completion of the mitigation strategy, concentrates on designing measures to ensure the plan's ultimate implementation, and adoption of evaluation and enhancement procedures for routine updating.

3.0 County Profiles

3.1 Geographic Setting and History

Barton County, at 894 square miles is the 30th largest county in Kansas. With a population of 27,511, Barton County is the 20th most populated county in the State of Kansas. There are nine incorporated municipalities in Barton County as follows: Great Bend (county seat), Hoisington, Ellinwood, Claflin, Pawnee Rock, Albert, Olmitz, Galatia, and Susank.

TABLE 3.1 (1) BARTON COUNTY CITIES, TOWNS, & VILLAGES (past and present)

Town/City	2000 Population	Zip Code	Year	Elevation
Albert	181	67511		1915
Albion Township	58			
Beaver		67517		1920
Beaver Township	108		1878	
Boyd				1851
Buffalo Township	490			
Cheyenne Township	238			
Claflin	705	67525	1887	1810
Clarence Township	125			
Cleveland Township	69			
Comanche Township	452			
Dartmouth				1815
Dubuque				1888
Dundee				1901
Ellinwood	2164	67526	1872	1800
EurekaTownship	116			
Fahrman				1889
Fairview Township	129			
Galatia	61		1885	1995
Grant Township	79			
Great Bend	15345	67530	1871	1849
Great Bend Township	1839			
Heizer				1880
Hitschmann				1930
Hoisington	2975	67544	1886	1845
Independent Township	844			
Kanbrick				1815
LakinTownship	299			
Liberty Township	321			
Logan Township	176			
Millard				1994
North Homestead	133			

TABLE 3.1 (1) BARTON COUNTY CITIES, TOWNS, & VILLAGES (past and present)

Township				
Odin		67562	1870	1839
Olmitz	138	67564	1885	2010
Pawnee Rock	356	67567	1874	1949
Pawnee Rock Township	544			
Redwing				1811
South Bend Township	682			
South Hoisington				1819
South Homestead Township	343			
Stickney				1951
Susank	57	67544	1917	1970
Union Township	128			
Walnut Township	474			
Wheatland Township	74			

Barton County is located in the south-central portion of the State of Kansas and is bounded on the north by Russell County, on the northeast by Ellsworth County, on the southeast by Rice County, on the south by Stafford County, on the southwest by Pawnee County, and on the west by Rush County.

TABLE 3.1 (2) LAND COVER

Code	Land Cover	% Area
11	Urban Industrial/Commercial	0.70
12	Urban Residential	0.43
13	Urban Openland	0.70
14	Urban Woodland	0.02
15	Urban Water	0.02
20	Cropland	67.16
30	Grassland	24.02
31	Conservation Reserve Program (CRP) Land	3.80
40	Woodland	1.03
50	Water	2.09
60	Other	0.02

The 2005 Kansas Land Cover Patterns map produced by the Kansas Applied Remote Sensing (KARS) program provides a fairly accurate assessment of 11 land use/land cover classes. The bulk of the land cover in the county (91.2%) is comprised of cropland and grassland. Cropland areas are predominant

throughout the entire county. Grassland areas are also located in all sectors of the county. The primary concentration of grassland is located in and around the Cheyenne Bottoms National Wildlife Area northeast of Great Bend. Other notable concentrations of grassland are found in the southeastern and northeastern corners of the county as well as along hills and ridges not suitable for tilling. Additionally, smaller concentrations of grassland are located along the drainage basins of the Arkansas River, Walnut Creek, Blood Creek, Deception Creek, and Cow Creek. Surface water is primarily in the form of a river, creeks, numerous small to medium sized ponds, sand pits, lakes, and the Cheyenne Bottoms holding pools. Residential and commercial development comprise 1.13% of the land cover, primarily in and around the towns of Great Bend, Ellinwood, and Hoisington. Woodlands are scarce and typically clustered along the streams and creeks that traverse the county. Limited concentrations of woodlands are also found along county section lines in the form of wind shelter belts planted for soil conservation purposes. The principle varieties of native timber include hackberry, ash, elm, box elder, cottonwood and walnut.

History

William G. Cutler's History of Kansas, first published in 1883, tells about the history of Barton County. Additionally, the publication "Great Bend, Kansas, A Historical Portrait of the City" provides good detail about the history of Great Bend and Barton County.

Although the Indians were the first owners of the western territories that included what would become Barton County, ownership of the land was declared as early as 1541, when Francisco de Coronado claimed the lands in the name of Spain. Coronado was followed by European explorers including De Soto, John Cabot, and La Salle. Although each of the European explorers claimed the land in the name of their native countries, the land was eventually sold as a portion of the Louisiana Purchase, from France to the American government in 1803.

Long before possession by the U.S. Government and the settlement of Barton County and areas further west, the Indians native to the area followed a trail adjacent to the Arkansas River for trade purposes. The first American to visit the area of Barton County was Zebulon Pike in 1806, who set up camp at the mouth of Walnut Creek during an early exploration, and additional explorers soon followed. In order to travel west, a dependable supply of food and water was necessary, and the Arkansas River and Walnut Creek furnished both. Thus, settlers and explorers crossed the same area the native Indians did, by following the trail along the Arkansas River which became known as the Santa Fe Trail.

In 1853 a U.S. Post Office was established in the Walnut Creek area, and in 1855 a trading post was established approximately one mile west of the mouth of Walnut Creek.

In 1864 a military post called Fort Zarah was established by the Government during the War of the Rebellion, about three miles east of the present site of Great Bend. The town of Zarah was started by a party from Ellsworth in 1870, and was located about a mile east of the fort. In 1871 Fort Zarah was abandoned, and the 3,600 acres of land upon which it was located was sold. During the same year, the Town of Great Bend (named due to its location near the bend of the Arkansas River) was founded with the intention of having a railroad come through the town.

Due to the increasing commerce traffic along the Santa Fe Trail, and in conjunction with the need to enhance the westward expansion, the Atchison, Topeka and Santa Fe Railroad was constructed along the trail, and entered into the town of Great Bend in 1872.

While settlement in Barton County occurred fairly rapidly, urban population growth in the early years was relatively slow. Unlike other counties, no large settlements of colonies occurred immediately, due

primarily to the immigration of families and groups who spread throughout the county, rather than a mass congregation in a specific area. With the completion of the railroad line westward, many settlers and emigrants, including Russians, English, and Germans, relocated to Barton County. Numerous other settlers passed through the area on their way to adjoining counties.

The Barton County Courthouse was constructed in 1874, and was in use until it was demolished and a new courthouse was built in 1917-1918. The first schoolhouse in the county was built in 1873 in Great Bend. The primary industry in Barton County was agriculture, although soon additional industries were in operation in the county, and included flour mills, brickmaking plants, creameries, processing and packing plants, foundries, and soft-drink bottling plants. Commercial and retail facilities were located throughout Barton County, which by the late 1800s included the communties of Great Bend, Hoisington, Ellinwood, Claflin, Boyd, and Heizer. Barton County benefited economically by the presence of railroads in the county, which by 1888 included the Chicago, Kansas, and Western Railroad, and the Missouri Pacific railroad.

Because agriculture was the major economic force in Barton County, the availability of water for irrigation was a major concern. In 1897 the Grand Lake Reservoir Company was formed to finance an irrigation system for the area around Great Bend. The plan was to dig a 13-mile long canal from the constant water supply of the Arkansas River into the Cheyenne Bottoms, a 40,000 acre intermittently dry, natural lake. However, a lack of supplied-water to the Cheyenne Bottoms from the Arkansas River, accompanied by lawsuits over financing and land-ownership, put an end to the idea of an irrigation storage reservoir in Barton County.

From its founding in 1872, Barton County's population reached 14,000 residents by 1900. Great Bend led the expansion of communities in the county with a population of 2,700 by the turn of the century. At this time, Great Bend was also home to eight churches, four public school buildings, the Central Normal College, six hotels, numerous industrial, retail, and commercial facilities, as well as electrical service.

The construction of numerous public buildings, private homes, schools, transportation infrastructure, and new commercial enterprises continued into the early 1900's. In Great Bend, the original Courthouse was razed in 1917 and replaced by the current Barton County Courthouse, completed in 1918. The first dedicated county jail and sheriff's quarters were erected in 1908. Great Bend's original city hall, a substantial two story brick and stone structure, was constructed in 1906-1907. Other construction projects included the completion of a new post office in 1912 and the AT&SF depot in 1911.

During World War II an air base was established west of Great Bend where young pilots were trained for combat missions in the European and Pacific Theaters. Remnants of the Great Bend Army Air Field can still be seen today at the Great Bend Airport complex.

3.2 Government

Barton County government consists of a representative five-member commission, and a county administrator for day to day operations. There are a total of nine incorporated cities in the county (Albert, Claflin, Ellinwood, Galatia, Great Bend, Hoisington, Olmitz, Pawnee Rock and Susank) each having a mayoral or mayor/city council form of government.

In addition, Barton County has 22 townships which are managed by a township board, consisting of a trustee, treasurer and clerk, with the trustee being the principal officer. Townships in Barton County are NOT on the county unit road system. Townships in Barton County are: Albion, Beaver, Buffalo, Cheyenne, Clarence, Cleveland, Comanche, Eureka, Fairview, Grant, Great Bend, Independent, Lakin, Liberty, Logan, North Homestead, Pawnee Rock, South Bend, South Homestead, Union, Walnut and Wheatland.

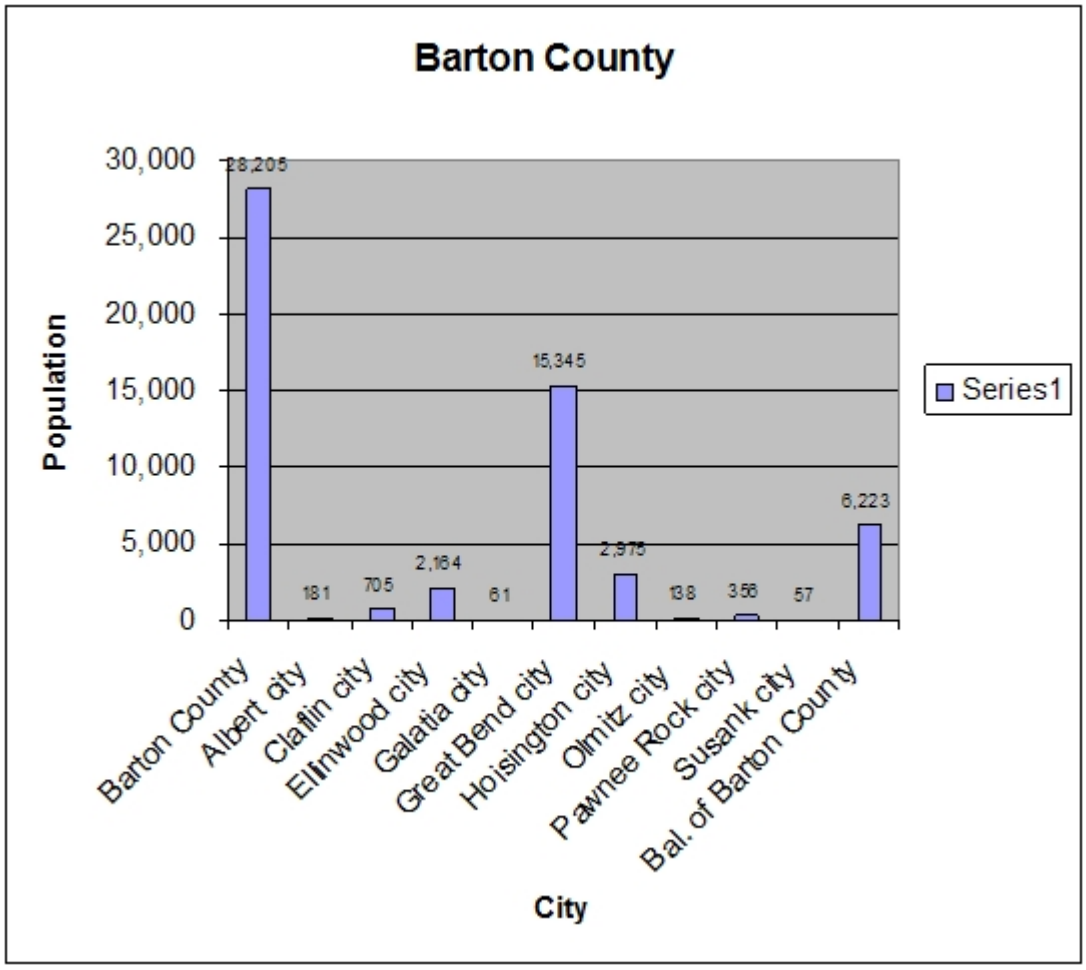
There are four school districts with active schools located in Barton County, USD 112 Central Plains/Claflin, USD 355 Ellinwood, USD 428 Great Bend, and USD 431 Hoisington. Other school districts with taxing authority in Barton County, and no active school buildings, are USD 351 Macksville, USD 403 Otis-Bison, and USD 496 Fort Larned.

3.3 Demographics

Barton County is a rural agricultural county with Gread Bend serving as a micropolitan area for the gas and oil industry. Barton County's retail trade pull factor of 1.10% for the year 2006 is currently ranked second in Kansas Economic Reporting Region V. The Barton County Economic Development Council is actively seeking ways to increase expansion of its existing businesses and industries in the county in an attempt to broaden the tax base while not destroying the agricultural base of the county. From a production basis, agricultural products (crops and livestock) comprise the majority of industry in the region.

Barton County's current population of 27,511 (2006 - US Census Estimated Population) ranks 20th out of 105 counties in the state. Most of these residents are dispersed throughout the county's nine main population centers, with some smaller concentrations residing in rural parts of the county. The average population density for the county is 31.55 people per square mile.

REGIONAL POPULATIONS IN BARTON COUNTY (Certified to the Secretary of State-7-1-07)



Unlike many Kansas counties, Barton County has experienced an overall population gain since 1900. However, the recent 2006 U.S. Census estimated population for the county is 27,511, revealing a slight decrease of 2.5%, and the last 26 years have shown Barton County with a steadily decreasing population. The historical census population counts for Barton County for 1900-2000 are shown in Table 3.3.(1).

A recent study conducted by the Kansas Water Office provides projection data for Barton County that

predicts a gradual upswing in population over the next 32 years. These data are provided in Section 4.5.5 - Development Trends and Implications.

TABLE 3.3 (1) HISTORICAL POPULATION

1900	1910	1920	1930	1940	1950	1960
13784	17876	18422	19776	25010	29909	32368
1970	1980	1990	2000	2006 (est.)	% Change	
30663	31343	29382	28205	27511	-2.46%	

General demographic information from the 2000 Census is shown in Table 3.3 (2). Barton County's Census population was 28,205 with 15,345 people living in Great Bend, the largest populated city in the county. 51.6% of the people are female and 48.4% male. the median age is 38.6 years. The majority of the population are in the 25-44-year range, with 82.1% of the population under the age of 65. Of the houses in the county, 72.1% were owner occupied.

TABLE 3.3 (2) POPULATION DEMOGRAPHICS

Subject	Number	Percent
Total Population	28205	100.0%
Male	13651	48.4%
Female	14554	51.6%
Under 5 Year	1793	6.4%
5 to 9 Years	1941	6.9%
10 to 14 Years	2221	7.9%
15 to 19 Years	2378	8.4%
20 to 24 Years	1541	5.5%
25 to 34 Years	2789	9.9%
35 to 44 Years	4302	15.3%
45 to 54 Years	3642	12.9%
55 to 59 Years	1326	4.7%
60 to 64 Years	1229	4.4%
65 to 74 Years	2483	8.8%
75 to 84 Years	1796	6.4%
85 Years and Over	764	2.7%
Median Age (years)	39	
18 Years and Over	20875	74.0%
Male	9892	35.1%
Female	10983	38.9%
21 Years and Over	19476	69.1%
62 Years and Over	5759	20.4%
65 Years and Over	5043	17.9%
Male	2027	7.2%
Female	3016	10.7%

3.4 Economy

Overview

In 2006 Barton had a per capita personal income (PCPI) of $32,416. This PCPI ranked 17th in the state and was 93 percent of the state average, $34,799, and 88 percent of the national average, $36,714. The 2006 PCPI reflected an increase of 9.4 percent from 2005. (Bureau of Economic Analysis).

The 2005-2006 state change was 6.4 percent and the national change was 5.6 percent. In 1996 the PCPI of Barton was $20,346 and ranked 43rd in the state. The 1996-2006 average annual growth rate of PCPI was 4.8 percent. The average annual growth rate for the state was 4.3 percent and for the nation was 4.3 percent.

In 2006 Barton had a total personal income (TPI) of $901,102. This TPI ranked 20th in the state and accounted for 0.9 percent of the state total. In 1996 the TPI of Barton was $588,305 and ranked 19th in the state. The 2006 TPI reflected an increase of 9.0 percent from 2005. The 2005-2006 state change was 6.9 percent and the national change was 6.7 percent. The 1996-2006 average annual growth rate of TPI was 4.4 percent. The average annual growth rate for the state was 4.8 percent and for the nation was 5.4 percent.

Total personal income includes net earnings by place of residence; dividends, interest, and rent; and personal current transfer receipts received by the residents of Barton. In 2006 net earnings accounted for 62.8 percent of TPI (compared with 60.2 in 1996); dividends, interest, and rent were 18.7 percent (compared with 21.9 in 1996); and personal current transfer receipts were 18.5 percent (compared with 17.8 in 1996). From 2005 to 2006 net earnings increased 9.5 percent; dividends, interest, and rent increased 9.2 percent; and personal current transfer receipts increased 7.2 percent. From 1996 to 2006 net earnings increased on average 4.8 percent each year; dividends, interest, and rent increased on average 2.7 percent; and personal current transfer receipts increased on average 4.8 percent.

Earnings of persons employed in Barton increased from $584,263 in 2005 to $639,612 in 2006, an increase of 9.5 percent. The 2005-2006 state change was 6.1 percent and the national change was 5.7 percent. The average annual growth rate from the 1996 estimate of $406,788 to the 2006 estimate was 4.6 percent. The average annual growth rate for the state was 5.2 percent and for the nation was 5.5 percent.

Agriculture

Farming in Barton County remains the mainstay for the county. The 2007-2008 Kansas Department of Agriculture Farm Facts indicates 770 farms, ranking 29th in the state, and 643,000 acres of land in farms, ranking 11th in the state. Barton County ranks 22st in farm value of crops harvested ($87,150,300), and 13th in the value of cattle and milk production in the state ($64,989,000). Crops consist of wheat (3,277,000 bushels), corn (4,756,000 bushels), sorghum (4,809,000 bushels), and soybeans (756,700 bushels). Cattle and calves inventory in January 2008 was 137,400 head valued at $119,540,000. Data for hogs, sheep, and poultry were not available at the county level. Employment statistics for the county show a decrease in farm employment from 1,113 in 1990 to 990 in the year 2003.

Business & Industry

During the year 2000, 65.9% of Barton County's population was in the labor force while 3.5% were unemployed and looking for work. The top employment sectors include: management, professional, and related occupations (27.6%), sales and office occupations (26.0%.), service occupations (17.2%), production, transportation, and material moving occupations (16.3%), construction, extraction, and maintenance occupations (10.6%), and farming, fishing, and forestry occupations (2.4%).

In 2000, 75.9% of the working class was identified by the U.S. Census Bureau as private wage and salary

workers; 9.6% as self-employed, and 13.9% as government workers.

In 2007, the unemployment rate in Barton County was 3.2%, ranking the county 37th in the state for unemployment. This percentage was down from 3.5% in 2000.

Barton County Property was valued at $214,006,378 in 2007. Public utility property accounted for 11.95% of the total property valuation, with agricultural cropland accounting for 70.53% of the total property valuation. Residential property accounted for 10.8% of the total property valuation, and oil and gas properties accounted for 15.8% of the total property valuation.

Approximately 200 jobs were lost in the county during the period 1990 to 2004. Many of the jobs that were added are higher income level professionals such as finance, insurance, and real estate. The civilian labor force in Barton County has shrunk from 15,080 in 1990 to 15,003 in 2004. Table 3.4 (1) shows the 2000 US Census data on Barton County's workforce.

TABLE 3.4 (1) BARTON COUNTY WORKFORCE BY INDUSTRY (2000)

Industry	Number	Percent
Agriculture, forestry, fishing and hunting, and mining	1323	9.8%
Construction	814	6.0%
Manufacturing	1572	11.6%
Wholesale trade	597	4.4%
Retail trade	1752	12.9%
Transportation and warehousing, and utilities	724	5.3%
Information	171	1.3%
Finance, insurance, real estate, and rental and leasing	696	5.1%
Professional, scientific, management, administrative, and waste management services	669	4.9%
Educational, health and social services	3167	23.4%
Arts, entertainment, recreation, accommodation and food services	930	6.9%
Other services (except public administration)	629	4.6%
Public administration	519	3.8%
Employment	Number	Percent
Population 16 years and over	21733	100.0%
In labor force	14351	65.9%
Civilian labor force	14322	65.8%
Employed	13563	62.3%
Unemployed	759	3.5%
Percent of civilian labor force		5.3%
Armed Forces	29	0.1%
Not in labor force	7422	34.1%

Economic Summary

Barton County's projected population growth (KWO projections) makes economic development somewhat less difficult than in other areas in the state. The county is agricultural, but it also has gas and oil resources that help balance productivity and growth. Barton County is classified as a Densely-Settled Rural County.

The Kansas Department of Health and Environment (KDHE) classifies counties into one of five tiers: Frontier, Rural, Densely-settled rural, Semi-urban, and Urban. The classifications are based on several factors including population per square mile. Since the 1930's, Frontier/Rural contraction has been a reality for the State. Frontier classification obviously represents the most economically disadvantaged and

Urban the most prosperous. Frontier and Rural are considered "distressed" based on various economic and demographic characteristics. A Frontier County is defined as those with less than 6.0 persons per square mile; Rural Counties are those with 6.0 – 19.0 persons per square mile.

Distressed counties (Frontier and Rural) account for 68 of the 105 counties in the State. Numerous bills have been introduced into the Kansas legislature over the past ten years, but none have passed that specifically addresses dwindling populations in the rural counties. Other suggestions have included replacing irrigation-based agriculture with more diverse forms of economic activity. Ultimately, the availability of steady, well-paying jobs and affordable housing would mitigate many of the problems created by sparse population.

3.5 Climate

The climate of Barton County is characterized by low precipitation, rapid evaporation, and a wide range of temperature. The summer days generally are hot but, due to the movement of wind and the low humidity, the nights are relatively cool. The winters are moderately cold, but generally free from excessive snowfall and damp cloudy days. Temperatures occasionally climb above 100 degrees Fahrenheit during the summer months, with moderate to cold winters with temperature lows averaging under 20 degrees Fahrenheit. Weather averages are provided in Table 3.5 (1).

TABLE 3.5 (1) CLIMATE SUMMARY

Average Daily Temperature (Fahrenheit)	56
January (Fahrenheit)	High – 42.3
	Low - 19.4
July (Fahrenheit)	High – 93.7
	Low - 68.3
Average Annual Precipitation (inches)	25.62
Average Annual Snowfall (inches)	16.2
Prevailing Winds	Warm Months (Late Spring-Summer) S-SW
	Cold Months (Late Autumn-Winter) N-NW

3.6 Natural, Historic, and Cultural Resources

Barton County is home to the Cheyenne Bottoms Wildlife Area. The 19,857-acre Cheyenne Bottoms Wildlife Area is part of a 41,000-acre natural land sink just northeast of Great Bend. During the 1940's and1950s, the State of Kansas acquired the land, and dikes were constructed to impound water in five pools. Canals and dams were built to divert water from the nearby Arkansas River and Wet Walnut Creek to supplement water provided by two intermittent streams, Blood and Deception creeks.

The area's most abundant natural resource may arguably be the agricultural land. The streams and creeks criss-cross the county, and the Arkansas River serves as the county's main water source. The area experiences approximately 25.6 inches of rainfall on an annual basis. The quality of soil and suitable drainage makes it possible to produce a variety of crops. Wheat, sorghum, soybeans, and corn make up the majority of crops in the county. The total number of cropland harvested in 2007 was 310,740 acres.

One lake was identified in Barton County, Lake Barton. Additional details on each of these lakes is provided in the next section.

Oil and Gas

The most recent (complete) report on the total quantity of oil pumped in Barton County was 2007, when 1,660 wells produced 1,896,122 barrels of crude oil. Review of the Kansas Geological Survey oil and gas well database indicated that 1,704 oil wells are currently in production in Barton County (2008), with incomplete production data showing 1,897,864 barrels produced. Gas production in 2007 came from 34 wells that produced 136,696 mcf of natural gas.

Mining

Mining is a major source of activity in Barton County in the form of quarries located throughout the county and dredging operations performed along the Arkansas River. There are fifteen active mines operated by ten entities, which include four active surface clay/shale mines operated by Kansas Brick & Tile Company Inc., and sand & gravel mines operated by: Barton County Public Works Dept (two active pits), Barton County Road Department (three pit or lake dredge mines), Dartmouth Sand & Gravel (one active pit mine), Great Bend Asphalt & Concrete (one active surface mine), Great Bend Asphalt & Sand Inc. (one active pit mine), Knop Brothers Sand Company (one active pit or lake dredge), Rush County Highway Dept (one active surface mine), Stone Sand Company (one pit and one river dredge), and Westhoff Brothers Sand Co. (one pit or lake dredge).

Historic Sites in Barton County, Kansas

There are nine sites in Barton County listed on the National Register of Historic Sites as presented in Table 3.6 (1).

TABLE 3.6 (1) COUNTY HISTORIC SITES

Site Name	Address	City
Abel House	2601 Passeo	Great Bend
Crest Theater	1905 Lakin Ave.	Great Bend
Nagel House	1411 Wilson St.	Great Bend
Pawnee Rock	0.2 mi. N of Pawnee Rock off U.S. 56	Pawnee Rock
US Post Office--Hoisington	121 E. 2nd St	Hoisington
Walnut Creek Bridge	Over Walnut Creek, NW of Heizer	Heizer
Walnut Creek Crossing	Address Restricted/Private	Great Bend
Wolf Hotel	104 E. Santa Fe	Ellinwood
Wolf Park Band Shell	Lots 12 and 13, Block 2, 200 Blk of N. Main	Ellinwood

3.7 Geologic Features

Topography and drainage

Barton County lies within the Smoky Hills and Arkansas River Lowlands regions of the Great Plains and Central Lowlands physiographic provinces. The county is further divided into seven physiographic sub-units.

1. The Blue Hills upland, areas of increased elevation in relation to adjacent drainage basins, is found in the northern half of Barton County and in two smaller areas in the west-central and southwestern portions of the county. The northern upland forms the divide between the Smoky Hill and Arkansas River drainage basins. The west-central upland is a narrow spur between the Walnut Valley and Dry Walnut Valley. The third upland area separates the Dry Walnut Valley from the Arkansas Valley.

2. Cheyenne Bottoms is a basin located in central Barton County. The area, roughly circular and occupying ~60 square miles, has a flat and featureless surface sloping gently to the east. On all but the east and southeast sides, Cheyenne Bottoms is surrounded by steep bluffs composed of sandstone, clay, and limestone. Two tributaries (Blood Creek and Deception Creek) empty into Cheyenne Bottoms contributing to the wetlands whose size fluctuates with the level of annual precipitation.

3. The Cow Creek drainage basin is located in east-central Barton County and occupies the area drained by Cow Creek and its tributaries. The area is intermediate in elevation between the Blue Hills upland on the north and west and Arkansas Valley to the south. The Cow Creek drainage basin also includes an eight-square mile area of sand dunes southwest of Claflin. This area is comprised of typical sand dune topography of moderate slopes and hills interspersed with small basins.

4. The Walnut Valley, located in west-central Barton County, is the valley area drained by Walnut Creek as well as the broad terrace bordering the north side of the valley. The area extends southeastward from the western county line to a few miles beyond Heizer where it joins the Dry Walnut Valley and Arkansas Valley to form a wide valley plain in the Great Bend Area.

5. The Dry Walnut Creek Area, located to the south and running roughly parallel to the Walnut Creek Valley, consists of the valley carved by Dry Walnut Creek and its tributaries. Dry Walnut Valley is bordered on both sides by low terraces whose surfaces have been dissected by numerous tributary streams.

6. The Arkansas Valley area is a predominant feature of the Barton County physiographic sub-units. The area consists of the Arkansas River floodplain and associated low terraces along the floodplain perimeter. The valley extends across the entire southern third of the county. Entering the southwest corner of the county, the valley width expands and retracts across its route through the county exhibiting a width of ~3 miles at Pawnee Rock, widening to ~6 miles at Great Bend, narrowing to ~2 miles at Dartmouth, and further expanding to ~8.5 miles at the eastern Barton County line. The valley follows the arching route of the Arkansas River through Barton County, reaching its northern apex at Great Bend. The northern limit of the valley is marked by terraces ~5-10 feet above the floodplain while the sand hills indicate the boundary to the south.

7. The Great Bend prairie is an alluvial plain showing strong evidence of having been overlain by windblown sand. This area includes all land in Barton County south of the Arkansas River and extending into Stafford County. It is characterized by sand dune topography having moderate slopes and hills separated by small basins.

Barton County contains segments of three of the thirteen primary drainage basins in Kansas: Upper

Arkansas, Lower Arkansas, and Smoky Hill. The highest point in the county is located in the southwest portion of the county ~3 miles northwest of Pawnee Rock, ~2,100 feet above mean sea level. The lowest point is found in the east-central portion near the area where Cow Creek departs the county, ~1,710 feet above mean sea level.

Rivers, lakes, streams

The Arkansas River is the predominant stream in Barton County, cutting a distinctive arching path through the southern third of the county. Walnut Creek and Dry Walnut Creek enter the western border of the county and form the Lower Walnut Creek drainage basin. Walnut Creek picks up Dry Walnut Creek just east of Great Bend and continues to the southeast where it empties into the Arkansas River west of Dartmouth. The Cow River drainage basin (also a tributary of the Arkansas River) includes Blood Creek, Deception Creek, Little Cheyenne Creek, and the Cow River. Blood Creek flows to the southeast from an area northwest of Hoisington and empties into northwest side of Cheyenne Bottoms. Deception Creek flows southward from an area north of Hoisington and also feeds Cheyenne Bottoms. Little Cheyenne Creek flows southeast out of Cheyenne Bottoms following an arching path turning east and north, eventually joining Cow Creek southeast of Claflin. In the northern fifth of Barton County, numerous streams flow northward into the Smoky Hill River drainage basin. From west to east, named streams in this area include Landon Creek, Sellens Creek, Goose Creek, Beaver Creek, Coal Creek, and Blood Creek. A portion of the Coon/Pickrell River drainage basin is located in the southern fifth of Barton County. This area consists of intermittent tributaries flowing from the south and west to the Arkansas River. Antelope Creek is the only named stream in this group of tributaries.

Cheyenne Bottoms is a natural basin in which contributing creeks form a shallow lake and a large expanse of wetlands and marsh. Following acquisition of the lower part of the basin by the State of Kansas in 1957, this 19,857 acre area was subdivided into man-made, interconnected pools. Cheyenne Bottoms' natural sources of water-runoff, precipitation, and two creeks that flow into the basin-have been supplemented since the 1950s by flows diverted from the Arkansas River and one of its tributaries; Walnut Creek. These sources have proved unreliable. Beginning around 1970, the once-healthy marsh began suffering from water shortages which continue to plague the area today.

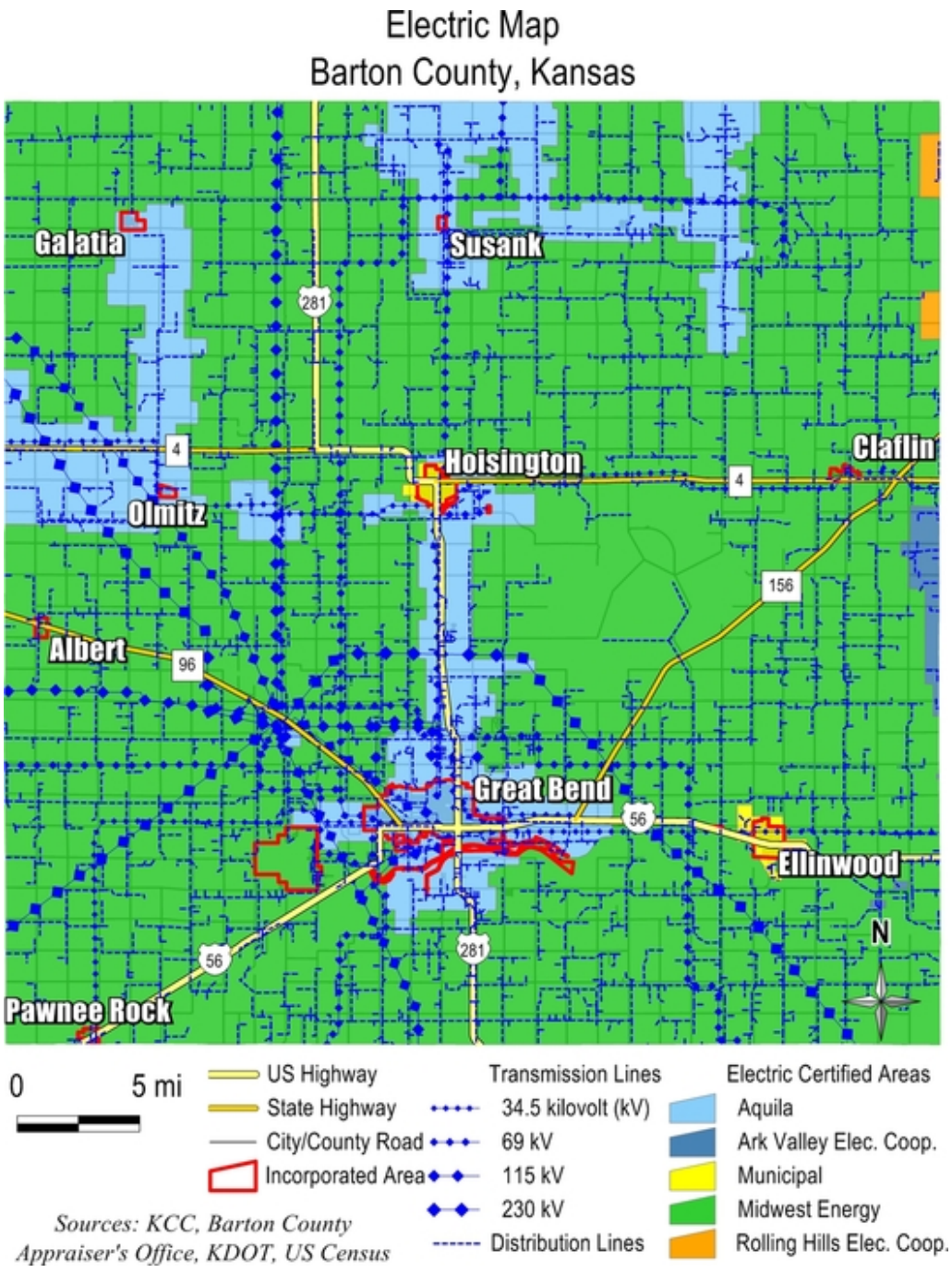
Lake Barton, located five miles north of Great Bend and west of US-281, was constructed by the Missouri Pacific Railroad as a source of water for steam locomotives passing through Hoisington and eventually became a recreation destination for county residents. However, dam integrity concerns led to the lake being drained several years ago.

Other forms of surface water in Barton County include farm ponds interspersed throughout the county and numerous sand pits located along the Arkansas River valley. Stone Lake and Veterans Lake in Great Bend are two prominent examples of sand pits.

3.8 Utilities and Transportation

3.8.1 Electricity

Electrical utility providers in the county include Midwest Energy, Aquila Networks (now Wheatland COOP), Ark-Valley Electric COOP, Rolling Hills Electric COOP, and city-operated services. Utilities not depicted on map below: Sunflower Electric COOP and Western Electric COOP.

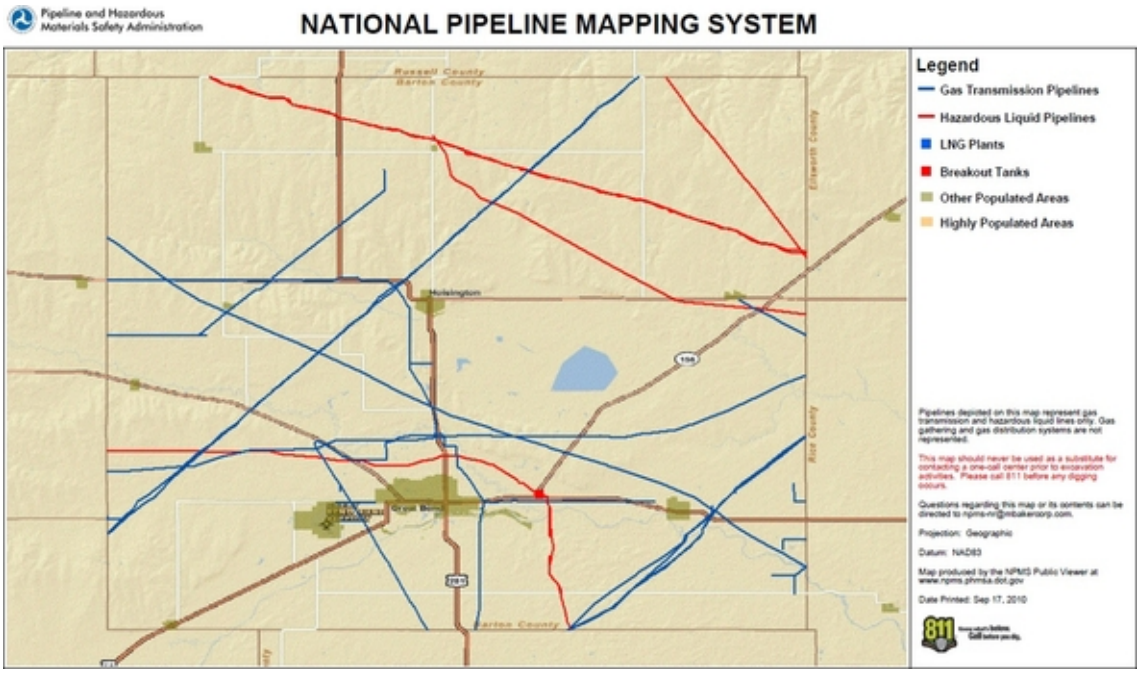


3.8.2 Natural Gas

Utility providers in the county include Kansas Gas Service, Kansas Power & Light, Midwest Energy, Aquila, Mid-Continent LP Service, and city-operated services.

The National Pipeline Mapping System provides a comprehensive cartographic reference of pipeline sources. Pipeline systems transporting natural gas and hazardous liquid pass through Barton County. The pipeline operators within Barton County include Kansas Gas Service, KM Interstate Gas Transmission Co., Midwest Energy, Inc., Natural Gas Pipeline of America (KMI), Northern Natural Gas Co., Southern Star Central Gas Pipeline, Inc., Buckeye Partners, LP, Jayhwak Pipeline, LLC, Magellan Pipeline Co., LP, and Oneok NGL Pipeline, LP. The KDOT Hazardous Materials Study - Project Final Report assigned a pipeline risk factor of 0.05 to Barton County, which is equal to the Statewide Mean Risk Factor.

Barton County Pipeline Map



3.8.3 Water

The primary source of water in Barton County is groundwater (wells) from the Great Bend Prairie member of the High Plains aquifer. Other groundwater sources include alluvial aquifers underlying local streams and the Great Plains aquifer in northern portions of the county.

Water systems in Barton County as identified by the USEPA are as follows:
City of Albert (serves 180 residents) ID No. KS2000914
All Seasons Mobile Home Court (serves 150 residents) ID No. KS2000912
Barton County Community College (serves 1000 residents) ID No. KS2000913
Barton County RWD #1 (serves 30 residents) ID No. KSKS2000902
Barton County RWD #2 (serves 344 residents) ID No. KS2000907
Barton Hills Addition (serves 176 residents) ID No. KS2000915
Camp Aldrich Conference Center (serves 25 residents) ID No. KS2100904
City of Claflin (serves 700 residents) ID No. KS2000905
Doonan Truck and Equipment (serves 37 residents) ID No. KS2100906
City of Ellinwood (serves 2111 residents) ID No. KS2000906
Great Bend Industrial Park (serves 750 residents) ID No. KS2100910
City of Great Bend (serves 15066 residents) ID No. KS2000911
City of Hoisington (serves 2977 residents) ID No. KS2000903
Kiowa Kitchen (serves 25 residents) ID No. KS2100912

City of Olmitz (serves 136 residents) ID No. KS2000904
City of Pawnee Rock (serves 348 residents) ID No. KS2000916
City of Susank (serves 56 residents) ID No. KS2000901

3.8.4 Telecommunications

Telephone, television, and internet service providers include Verizon Wireless, Nex-Tech Wireless, Cellular One, Southwestern Bell Telephone (SBC), KansasWeb LLC, Clearshot Communications, Tele-Communications, Unicel, Westlink Communications, Charter Communications, H & B Cable Service, Golden Belt Telephone Association, Sprint, and Cox Communications. Local newspaper service is provided through the Great Bend Tribune, Ellinwood Leader, and Hoisington Dispatch.

3.8.5 Transportation

Roadways
Federal Highways: There are two Federal highways in Barton County. US-281 is a north-south roadway that enters Barton County in the northwest quadrant and trends south where it merges with K-4, then trends east through Hoisington where it diverges with K-4. US-281 then trends south into Great Bend where it intersects with US-56. US-281 then continues south out of Great Bend before exiting the county. The estimated total mileage is 34.03 miles.

US-56 is a east-west trending roadway that enters Barton County in the southwest quadrant at Pawnee Rock and trends northeast into Great Bend where it merges with K-96 and US-281. The roadway then continues east and merges with K-156. The roadway continues east passing through Ellinwood before exiting the county in the southeast quadrant. The estimated mileage for this roadway is 30.56 miles. Total estimated mileage for Federal roadways in Barton County is 64.59 miles.

State Highways: K-4 is an east-west roadway that enters Barton County along the west county line and trends east passing north of Olmitz before merging with US-281, where it continues east through Hoisington, where K-4 diverges from US-281. K-4 continues east through Claflin and joins K-156 where the roadway leaves Barton County along the east county line. The estimated total mileage for is 64.59 miles.

K-96 is a east-west roadway that enters Barton County from the central quadrant and trends through Albert and Great Bend where it merges with US-56.

K-156 is a east-west roadway that enters Barton County from the north quadrant and joins K-4 where it trends southwest and merges with US-56. The estimated total mileage is 17.19 miles. The total estimated mileage for State roadways is 98.98 miles.

Numerous other secondary paved and unpaved roads crisscross the county in one-mile sections. The estimated total mileage for rural county roads in Barton County is 1,749.51 miles. Barton County is a noncounty unit road system, which is also called the County-Township system. In this system the Barton County maintains the main traveled
roads, which includes the county federal aid routes and those roads designated by the county commission as routes designed primarily for the movement of traffic between different areas of the county. The townships maintain the local roads that are not within a city. The main traveled roads that are maintained by the County are 389 miles of asphalt roads and 1 mile of technically sanded road for a total of 390 miles. Roads maintained by the townships are gravel roads.

The total estimated mileage for Federal, State, and county roads combined for Barton County is 1,875 miles.

Other Modes of Transportation

Railroad

Two railway companies utilizing three railway systems traverse Barton County: the Kansas & Oklahoma Rail Road (K&O) and the Union Pacific Rail Road (UP).

The UP leases their railway from the K&O, which is an east/west railway that enters Barton County toward the center of the west county line approximately six miles west of Olmitz. This line runs through Boyd, Hoisington, Redwing, and Claflin, before exiting toward the center of the east county line. the total estimated mileage for this railway is approximately 34 miles.

The southeast-northwest trending K&O railway enters toward the center of the west county line just south of the UP line and west of Albert. This line runs southeast of Heizer, Great Bend, Dartmouth, and Ellinwood before exiting the east county line in the south east corner of the county. The total estimated mileage for this railway is 32 miles.

The other K&O railway is a northeast/southwest railway that enters Barton County at the community of Pawnee Rock in the southwest quadrant of the county. This railway travels to Dundee and Great Bend before intersecting with the other K&O line. The total estimated mileage for this railway is 30 miles.

Airports
Great Bend Municipal Airport (FAA Identifier: GBD), located four miles west of Great Bend, is a public airport with two asphalt runways, Runway 17/35 (7851 x 150 ft. / 2393 x 46 m) and Runway 11/29 (4706 x 75 ft. / 1434 x 23 m). There are thirty-three aircraft, twenty-three single-engine airplanes, and ten multi-engined airplanes based at the airport. The airport averages 52 flights per day, 61% of which are local general aviation, 20% are transient general aviation, 10% commercial, and 10% air taxi. There are published instrument procedures at GDB.

Ellinwood Municipal Airport (FAA Identifier: 1K6), located two miles northwest of Ellinwood, is a public airport with one asphalt runway, Runway 17/35 (2550 x 100 ft. / 777 x 30 m) and one turf runway, Runway 8/26 (2150 x 150 ft. / 655 x 46 m). There are seven aircraft, five single-engine airplanes, and two ultralight airplanes based at the airport. The airport averages 22 flights per week, 87% of which are local general aviation, 13% are transient general aviation. There are published instrument procedures at 1K6.

Other nearby airports with instrument procedures:

KGBD - Great Bend Municipal Airport (12 nm W)
KLYO - Lyons-Rice County Municipal Airport (18 nm E)
KLQR - Larned-Pawnee County Airport (25 nm SW)
KRSL - Russell Municipal Airport (32 nm N)
KHUT - Hutchinson Municipal Airport (39 nm SE)

Two private airfields, Peters Landing Field, located at latitude 38.3039009 and longitude -98.4920185, and Button Airport, located at latitude 38.3833454 and longitude -98.750362. No additional information related to these airfields was available.

3.9 Local Jurisdictions

3.9.1 Great Bend (Population: 15,537)

Great Bend is the largest city and also serves as the county seat. Great Bend's economy is largely derived from agriculture and the oil and gas industries. The city has a total area of 10.7 square miles, of which 10.6 square miles is land, and 0.1 square miles (1.02%) is water.

A glimpse of Great Bend's early history courtesy of Cutler's History of Kansas: The city of Great Bend is located on Section 28, Township 19, Range 13, west of the sixth principal meridian. It is situated immediately north of that point in the Arkansas River where it commences to make the great bend eastward. The town site was located in 1871 by the Great Bend Town Company, composed of C. R. S. Curtis, M. F. Bassett, J. L. Curtis, J. T. Morton, James Israel, A. R. McIntyre, and one or two others. The town site was located under an act of Congress giving to companies that located a town and settled thereon a section of land. Immediately after the town was located the Town Company had erected what is now known as the "Southern Hotel" on the northwest corner of the public square, and this was the first house erected on the town site. Work on the building was commenced in August, 1871, and it was finished that fall. When the hotel was completed T. L. Stone was installed as landlord, being allowed the use of the building rent free for a certain period. The next house put up in town was by Edwin Tyler, a little south of the "Southern," on the west side of the square, between Nagie street and Bassett avenue. It was rather a small building, one part of which he used as a dwelling and the other as a store, he being the first man that ever sold goods in the city of Great Bend. Scarcely any settlers came to the place in the fall and winter of 1871, but early in 1872 they commenced coming at a lively rate.

James Holland came in the spring of 1872, and put up a building on the north side of the square, and as the building was nearing completion, he went East to purchase a stock of goods, and was never seen nor heard of afterward, the supposition being that he was murdered for his money. In May, 1872, A. S. Allen located in Great Bend, and put up a building on the west side of the square, in which he opened a drug store, and for three years there was no other drug store between his and the west line of the State.

According to the US Census Bureau (2000) there were 6,371 households, and 4,000 families residing in the city. The population density was 1,443.7 people per square mile (557.4/km²). There were 7,080 housing units at an average density of 666.1/sq mi (257.2/km²). The racial makeup of the city was 89.81% White, 1.62% African American, 0.43% Native American, 0.31% Asian, 0.01% Pacific Islander, 5.77% from other races, and 2.05% from two or more races. Hispanic or Latino of any race were 15.20% of the population.

There were 6,371 households out of which 30.4% had children under the age of 18 living with them, 51.1% were married couples living together, 8.4% had a female householder with no husband present, and 37.2% were non-families. 32.8% of all households were made up of individuals and 15.2% had someone living alone who was 65 years of age or older. The average household size was 2.35 and the average family size was 3.00.

In the city the population was spread out with 25.7% under the age of 18, 9.4% from 18 to 24, 25.4% from 25 to 44, 20.9% from 45 to 64, and 18.7% who were 65 years of age or older. The median age was 38 years.

The median income for a household in the city was $30,841, and the median income for a family was $38,708. Males had a median income of $29,339 versus $19,647 for females. The per capita income for the city was $17,085. About 11.5% of families and 15.2% of the population were below the poverty line, including 22.0% of those under age 18 and 9.7% of those age 65 or over.

The most established industry in Great Bend is retail trade, which occupies 17% of the market, followed by health care and social assistance at 10%, construction at 8%, and professional, scientific, and technical services at 7%.

USD 428-Great Bend is comprised of five elementary schools: Riley Elementary, Park Elementary, Lincoln Elementary, Jefferson Elementary, and Eisenhower Elementary, Great Bend Middle School, and Great Bend High School. The district supports pre-school services through the Washington Early Childhood Center, which is a Head Start program for pre-kindergarten students.

Great Bend also has several private schools including: Grace Academy, a K-8 co-ed elementary school - Association of Christian Schools International (ACSI), the Holy Family School - K-6 Catholic elementary school, and the Great Bend Seventh-Day Adventist School - grades 2-6 - a member of the General Conference of the Seventh-Day Adventist Church (GCSDAC).

3.9.2 Hoisington (Population: 2,832)

Hoisington is the second largest city in Barton County, and is located 10.97 miles north of Great Bend. Hoisington is a rural community with an agricultural support base. The city has a total area of 1.2 square miles, all of it land.

The Kansas Cyclopedia of 1912 captures early Hoisington: Hoisington, the second largest town of Barton county, is located on the Missouri Pacific R. R. 11 miles north of Great Bend, the county seat, with which it is connected by a branch of the Missouri Pacific. There are 2 banks, a weekly newspaper (the Dispatch), mills and elevators, electric lights, good hotels, well stocked mercantile establishments, an automobile livery, which makes daily trips to Great Bend and other towns, 4 churches, a public library and good schools. The town is supplied with telegraph and express offices and has an international money order postoffice with two rural routes. Hoisington is a growing town, the population in 1910 being 1,975, as against 789 ten years before.

The 2000 census by the U.S. Census Bureau states there were 1,252 households, and 785 families in the city. The population density was 2,519.9 people per square mile (973.4/km²). There were 1,449 housing units at an average density of 1,227.3/sq mi (474.1/km²). The racial makeup of the city was 95.73% White, 1.08% African American, 0.67% Native American, 1.18% from other races, and 1.34% from two or more races. Hispanic or Latino of any race were 3.63% of the population.

There were 1,252 households of which 28.8% had children under the age of 18, 51.0% were married couples living together, 8.3% had female householders with no husband present, and 37.3% were non-families. Of all households, 34.3% were made up of individuals and 17.7% 65 years of age or older living alone. The average household size was 2.30 and the average family size was 2.96.

The population was 24.8% under the age of 18, 7.9% from 18 to 24, 24.9% from 25 to 44, 21.5% from 45 to 64, and 20.9% who were 65 years of age or older. The median age was 41 years.

The census reported the median household income in the city was $28,022, and the median family income was $32,431. The median income for males was $26,306 versus $21,827 for females. The per capita income for the city was $15,234. Approximately 12.3% of families and 15.4% of the population fell below the poverty line, including 25.7% of those under age 18 and 10.6% of those age 65 or over.

The largest industry in Hoisington is retail trade with 17% of the market, then healthcare at 15%, then construction 11%, and mining at 6%.

USD 431-Hoisington consists of the district office, Roosevelt Elementary, Lincoln Elementary, Hoisington Middle School, and Hoisington High School.

3.9.3 Ellinwood: (Population: 2,006)

Ellinwood is a rural community with an agricultural support base, and is located 10.59 miles east of Great Bend. The city has a total area of 1.1 square miles, all of it land.

A brief early history of Ellinwood provided by Cutler's history: The town of Ellinwood is located on the north bank of the Arkansas River, on Section 32, Township 19, Range 11, west of the sixth principal meridian. The town site was located in the fall of 1871, by the Arkansas Valley Town company, of which Adam Speare was president. The site was platted and surveyed by John H. Cummings.

Among the people who settled there that year, aside from those mentioned, were D. J. Whitten and G. W. Hollinger, with two or three others. In 1873, several families arrived, among them that of Isaac Bacon, Andrew Barngrover, and Wallace Bay, the latter locating just outside the limits of the town site. A great many young men came, who entered claims close to or adjoining the town site, who boarded in town, and added considerably to the population.

As of the US Census Bureau's census of 2000 there were 906 households, and 594 families residing in the city. The population density was 1,996.8 people per square mile (773.6/km²). There were 1,034 housing units at an average density of 954.1/sq mi (369.7/km²). The racial makeup of the city was 96.90% White, 0.23% African American, 0.83% Native American, 0.05% Asian, 0.60% from other races, and 1.39% from two or more races. Hispanic or Latino of any race were 1.85% of the population.

There were 906 households out of which 31.5% had children under the age of 18 living with them, 53.1% were married couples living together, 9.7% had a female householder with no husband present, and 34.4% were non-families. 31.9% of all households were made up of individuals and 17.8% had someone living alone who was 65 years of age or older. The average household size was 2.33 and the average family size was 2.95.

In the city the population was spread out with 26.2% under the age of 18, 6.3% from 18 to 24, 23.8% from 25 to 44, 21.7% from 45 to 64, and 22.0% who were 65 years of age or older. The median age was 41 years.

The median income for a household in the city was $29,596, and the median income for a family was $42,292. Males had a median income of $29,792 versus $19,194 for females. The per capita income for the city was $15,811. About 7.3% of families and 10.0% of the population were below the poverty line, including 9.0% of those under age 18 and 15.1% of those age 65 or over.

Mining is the most established industry in Ellinwood with thirteen establishments, followed by construction with ten. The medical industry employs the most individuals with 75 employees, followed by long distance trucking.

USD 355-Ellinwood which consists of the district office, Ellinwood Grade School, and Ellinwood Middle/High School. Both of these buildings have recently been remodeled to include new band rooms (which also serves as the tornado shelter for Ellinwood Grade School), and Ellinwood Middle/High School received a new gym, weight room, and locker room facilities.

The only private school reported for Ellinwood is St. Joseph Elementary School serving grades K-8.

3.9.4 Claflin (Population: 648)

Claflin is the fourth largest community in Barton County. It lies 17 miles northeast of Great Bend and is a rural community with a agricultural support base. The city has a total area of 0.3 square miles, all of it land.

The Kansas Cyclopedia of 1912 captures Claflin's early history best: Claflin is located in Independent township about 20 miles northeast of Great Bend, the county seat. The first settlement at Claflin was made in 1887, and in 1910 the city reported a population of 554. It is a station on the Missouri Pacific R. R., has 2 banks, a flour mill, a creamery, a grain elevator, a machine shop, a weekly newspaper (the Clarion), Catholic and Protestant churches, a good public school system, and is the principal shipping and supply point for a large agricultural district, to the people of which its international money order postoffice supplies mail daily by two rural routes. The Odin school, a Catholic institution, is located at Claflin.

As of the US Census Bureau's 2000 census there were 280 households, and 189 families residing in the city. The population density was 2,120.3 people per square mile (824.9/km²). There were 316 housing units at an average density of 950.4/sq mi (369.7/km²). The racial makeup of the city was 99.43% White, 0.14% from other races, and 0.43% from two or more races. Hispanic or Latino of any race were 0.99% of the population.

There were 280 households out of which 33.6% had children under the age of 18 living with them, 61.1% were married couples living together, 5.4% had a female householder with no husband present, and 32.5% were non-families. 31.8% of all households were made up of individuals and 19.6% had someone living alone who was 65 years of age or older. The average household size was 2.51 and the average family size was 3.22.

In the city the population was spread out with 30.9% under the age of 18, 7.2% from 18 to 24, 24.4% from 25 to 44, 17.9% from 45 to 64, and 19.6% who were 65 years of age or older. The median age was 37 years.

The median income for a household in the city was $30,521, and the median income for a family was $35,417. Males had a median income of $29,659 versus $18,500 for females. The per capita income for the city was $14,819. About 2.2% of families and 5.3% of the population were below the poverty line, including 4.3% of those under age 18 and 11.4% of those age 65 or over.

The three most established industries in Barton County are: mining (13 establishments), wholesale trade (7 establishments), and construction (6 establishments). Support activities for oil and gas operations employ the largest number of people in Barton County (81), with furniture stores (35), and oil and gas wells (35) following.

USD 112 - Claflin consists of the district office, Claflin Elementary, and Claflin Junior/Senior High School.

3.9.5 Pawnee Rock (Population: 326)

Pawnee Rock is the fifth largest city in Barton County, and is located 12.65 miles southwest of Great Bend. Pawnee Rock is a rural community with an agricultural support base. The town has a total area of 0.3 square miles, all of it land.

A snapshot of early Pawnee Rock courtesy of Cutler's History: This is a thriving little town on the Atchison, Topeka & Santa Fe Railroad, in the extreme southwestern part of the county. The name is derived from a very large rock in the vicinity, which the reader will find fully described in the general

history of the county. This village was located and laid out in 1874, by the Arkansas Valley Town Company. It has several thriving business establishments, which drive a good trade with the surrounding country.

As of the 2000 census (US Census Bureau) there were 131 households, and 88 families residing in the city. The population density was 1,294.0 people per square mile (490.9/km²). There were 158 housing units at an average density of 574.3/sq mi (217.9/km²). The racial makeup of the city was 97.19% White, 0.28% African American, 0.84% Native American, 0.84% from other races, and 0.84% from two or more races. Hispanic or Latino of any race were 2.53% of the population.

There were 131 households out of which 38.2% had children under the age of 18 living with them, 46.6% were married couples living together, 15.3% had a female householder with no husband present, and 32.1% were non-families. 26.0% of all households were made up of individuals and 9.2% had someone living alone who was 65 years of age or older. The average household size was 2.72 and the average family size was 3.30.

In the city the population was spread out with 36.2% under the age of 18, 6.7% from 18 to 24, 28.1% from 25 to 44, 19.9% from 45 to 64, and 9.0% who were 65 years of age or older. The median age was 32 years.

The median income for a household in the city was $38,393, and the median income for a family was $39,375. Males had a median income of $25,625 versus $19,821 for females. The per capita income for the city was $12,651. About 10.6% of families and 9.6% of the population were below the poverty line, including 7.7% of those under age 18 and 7.1% of those age 65 or over.

The transportation and warehousing, retail trade, and utilities are all established industries in Pawnee Rock.

Due to diminishing population Pawnee Rock does not support public schools in their community, but participates with USD 428 located in Macksville (Stafford County).

3.9.6 Albert (Population: 173)

Albert is the sixth largest city in Barton County and is located 19.18 miles northwest of Great Bend. Albert is a rural community with an agricultural support base.The town has a total area of 0.2 square miles, all of it land.

A glimpse of Albert after the turn of the 20th century courtesy of The Kansas Cyclopedia of 1912: Albert, a prosperous little town of Barton county, is near the western boundary, and is a station on the Great Bend and Scott division of the Atchison, Topeka & Santa Fe R. R., 15 miles from Great Bend. Albert has a bank, a money order postoffice with one rural delivery' route, large grain elevators, several good mercantile houses, and in 1910 reported a population of 250.

According to the US Census Bureau (2000) there were 76 households, and 54 families residing in the city. The population density was 762.4 people per square mile (291.2/km²). There were 87 housing units at an average density of 366.5/sq mi (140.0/km²). The racial makeup of the city was 98.34% White, 0.55% from other races, and 1.10% from two or more races. Hispanic or Latino of any race were 2.21% of the population.

There were 76 households out of which 27.6% had children under the age of 18 living with them, 63.2% were married couples living together, 5.3% had a female householder with no husband present, and 28.9%

were non-families. 28.9% of all households were made up of individuals and 15.8% had someone living alone who was 65 years of age or older. The average household size was 2.38 and the average family size was 2.91.

In the city the population was spread out with 26.5% under the age of 18, 5.0% from 18 to 24, 19.3% from 25 to 44, 30.4% from 45 to 64, and 18.8% who were 65 years of age or older. The median age was 44 years.

The median income for a household in the city was $39,375, and the median income for a family was $44,792. Males had a median income of $30,250 versus $22,083 for females. The per capita income for the city was $15,948. About 6.8% of families and 4.1% of the population were below the poverty line, including 3.8% of those under the age of eighteen and none of those sixty five or over.

The plumbing, heating, and air-conditioning contractors industry employees the largest number of people, with an estimated employment of seven individuals. Other high employment industries include, commercial banking (seven employees) and religious organizations (three employees). Transportation and warehousing, finance and insurance, and wholesale trade are all established industries in Albert.

Albert has no public schools due to diminishing population, and participates with USD 403 Otis-Bison Schools located in Rush County.

3.9.7 Olmitz (Population: 131)

Olmitz is the seventh largest city in Barton County, and is located 13.88 miles northwest of Great Bend, the county seat. Olmitz is a rural community with an agricultural support base. The town has a total area of 0.2 square miles, all of it land.

Courtesy of The Kansas Cyclopedia: Olmitz, one of the larger villages of Barton county, is located on the Missouri Pacific R. R. 16 miles northwest of Great Bend, the county seat. It has a bank, more than a score of retail establishments, telegraph and express offices, and a money order postoffice with two rural routes. The population according to the census of 1910 was 200.

As of the census of 2000 (US Census Bureau) there were 62 households, and 37 families residing in the city. The population density was 828.6 people per square mile (313.4/km²). There were 71 housing units at an average density of 426.3/sq mi (161.3/km²). The racial makeup of the city was 96.38% White, and 3.62% from two or more races. Hispanic or Latino of any race were 1.45% of the population.

There were 62 households out of which 32.3% had children under the age of 18 living with them, 46.8% were married couples living together, 8.1% had a female householder with no husband present, and 40.3% were non-families. 37.1% of all households were made up of individuals and 17.7% had someone living alone who was 65 years of age or older. The average household size was 2.23 and the average family size was 3.00.

In the city the population was spread out with 27.5% under the age of 18, 8.0% from 18 to 24, 27.5% from 25 to 44, 21.0% from 45 to 64, and 15.9% who were 65 years of age or older. The median age was 37 years.

The median income for a household in the city was $31,429, and the median income for a family was $34,500. Males had a median income of $25,500 versus $13,333 for females. The per capita income for the city was $12,998. There were 11.9% of families and 12.9% of the population living below the poverty line, including 14.6% of under eighteens and 7.4% of those over 64.

The drinking places (alcoholic beverages) industry employees the largest amount of people, with an estimated employment of three individuals. Other high employment industries include: engineering services (three employees) and grain and field bean merchant wholesalers (three employees). The accommodation and food services, professional, scientific, and technical services, and wholesale trade are all established industries in Olmitz.

Olmitz has no public schools due to diminishing population, and participates with USD 403 Otis-Bison Schools located in Rush County. Olmitz also is home to Saint Ann's Education Center.

3.9.8 Galatia (Population: 58)

Galatia is second smallest town in Barton County and is located 21.6 miles north/northwest of Great Bend. The town has a total area of 0.4 square miles (1.0 km²), all of it land.

According to the Kansas Cyclopedia: Galatia, a country post office in Barton county, is located in Fairview township 24 miles northwest of Great Bend, the county seat. Olmitz, on the Missouri Pacific, is the nearest shipping point, with which it has daily stage connections. The population according to the census of 1910 was 65.

As of the census of 2000 (US Census Bureau) there were 27 households, and 18 families residing in the city. The population density was 164.4 people per square mile (63.7/km²). There were 32 housing units at an average density of 86.3/sq mi (33.4/km²). The racial makeup of the city was 83.61% White and 16.39% Native American.

There were 27 households out of which 18.5% had children under the age of 18 living with them, 55.6% were married couples living together, 3.7% had a female householder with no husband present, and 33.3% were non-families. 29.6% of all households were made up of individuals and 18.5% had someone living alone who was 65 years of age or older. The average household size was 2.26 and the average family size was 2.83.

In the city the population was spread out with 23.0% under the age of 18, 6.6% from 18 to 24, 26.2% from 25 to 44, 18.0% from 45 to 64, and 26.2% who were 65 years of age or older. The median age was 41 years.

The median income for a household in the city was $28,750, and the median income for a family was $38,750. Males had a median income of $22,188 versus $31,250 for females. The per capita income for the city was $16,282. There were no families and 6.0% of the population living below the poverty line, including no under eighteens and none of those over 64.

Due to a diminishing population Galatia no longer supports schools in their community and participates with USD 431-Hoisington.

3.9.9 Susank (Population: 54)

Susank is the smallest city in Barton County, located 19.03 miles north of Great Bend, Susank is a rural community with an agricultural support base. The town has a total area of 0.1 square miles (0.2 km²), all of it land.

As of the census of 2000 (US Census Bureau) there were 24 households, and 16 families residing in the city. The population density was 601.2 people per square mile (244.5/km²). There were 27 housing units at an average density of 284.8/sq mi (115.8/km²). The racial makeup of the city was 98.25% White, and 1.75% from two or more races.

There were 24 households out of which 33.3% had children under the age of 18 living with them, 54.2% were married couples living together, 4.2% had a female householder with no husband present, and 33.3% were non-families. 29.2% of all households were made up of individuals and 16.7% had someone living alone who was 65 years of age or older. The average household size was 2.38 and the average family size was 2.88.

In the city the population was spread out with 24.6% under the age of 18, 14.0% from 18 to 24, 19.3% from 25 to 44, 33.3% from 45 to 64, and 8.8% who were 65 years of age or older. The median age was 40 years.

The median income for a household in the city was $19,375, and the median income for a family was $18,125. Males had a median income of $17,500 versus $4,375 for females. The per capita income for the city was $7,469. There were 33.3% of families and 16.4% of the population living below the poverty line, including 10.0% of under eighteens and none of those over 64.

Due to diminishing population Susank no longer support public schools and participates with USD 431 - Hoisington.

3.10 Mitigation Capabilities

This portion of the Plan assesses Barton County's current capacity to mitigate the effects of the natural hazards identified in Section 4.0. The assessment includes a comprehensive examination of the following local government capabilities:

- Staff & Organizational Capability
- Administrative and Technical Capability
- Policy & Program Capability
- Fiscal Capability
- Legal Authority
- Political Willpower

The purpose of conducting this capabilities assessment is to identify potential hazard mitigation opportunities available to Barton County through its operation as a local government. Careful analysis should detect any existing gaps, shortfalls or weaknesses within existing government activities that could exacerbate jurisdiction vulnerability. The assessment will also highlight the positive measures already in place or being done at the county level, which should continue to be supported and enhanced if possible through future mitigation efforts.

The jurisdictions participating in this multi-jurisdictional plan believe it has the capacity to stand alone and will, for most situations, execute it as such. In the cases where the jurisdiction indicates a comprehensive plan, or related planning function, this plan will be used or incorporated in to that process as a reference or guiding document. As part of plan maintenance, the yearly review will examine and document the integration of the mitigation plan with other plans and planning functions. This process will also review new opportunities to incorporate and integrate the plan.

The capabilities assessment serves as the foundation for designing an effective hazard mitigation strategy through establishing goals and objectives for Barton County to pursue under this plan.

TABLE 3.10 (1) CAPABILITIES SUMMARY

	Emergency Coordinator	Emergency Operations Plan	Planning Department or Planner	Floodplain Management	Mitigation Officer	Planning Commission or Board	Building Codes and Inspection	Zoning Ordinances	NFIP Membership	Community Rating System (CRS)	Floodplain Management Plan (CRS)	Stormwater Management Plan	Comprehensive Land Plan	Subdivision Ordinances or Regulation	Economic Development Plan	GIS Capabilities
Barton (UnInc.)	X	X	X	X		X		X	X				X	X	X	X
Albert									X							
Claflin							X		X							
Ellinwood			X	X		X	X	X	X							X
Galatia																
Great Bend		X	X	X	X	X	X	X	X			X	X	X	X	
Hoisington				X	X	X	X		X				X			
Olmitz																
Pawnee Rock				X					X							
Susank					X											
Barton County Community College																
USD 112 - Claflin																
USD 355 - Ellinwood																
USD 428 - Great Bend																
USD 431 - Hoisington																

3.10.1 Staff and Organizational Capability

Barton County reported that they have the staff and organizational resources to implement hazard mitigation strategies, but current capabilities may be limited due to local economic conditions.

Barton County has a five-member elected commission. Commissioners are elected through voter precincts (number of voters determined through district mapping, rather than as representatives of each township). Terms on the board are four-year terms and are staggered with elections held every two years.

Barton County is responsible for property tax valuation and collection to help support the operation of the public school system. Taxes are paid to the state then re-distributed back to the school districts based on formula. These funds generally maintain buildings, provide funds for capital projects, and also include paying salaries, purchasing textbooks and supplies.

The county, and in many cases coordinating with and receiving support from local municipalities, has a number of professionally staffed departments and organizations to serve the residents of Barton County and to carry out day-to-day administrative activities. These include the following:

Barton County has a Planning Commission. Permits for development in unincorporated areas of the county are approved or disapproved through the Planning Commission and BOCC.

Barton County has an Administrator who manages the day to day operations of the county.

The County Commissioners, County Clerk, Treasurer, Register of Deeds, County Attorney, and the Sheriff are elected every four years.

Appointed Positions include: Noxious Weed Director, Health Department Director, Emergency Management Director, Landfill Manager, and County Engineer. Functional departments operate on a budget approved annually by the commissioners.

The Barton County Cooperative Extension office seeks to help individuals, families, and communities put research-based knowledge to work to improve their lives. Kansas' Cooperative Extension is based at Kansas' land grant institution, Kansas State University, but offices are located in all 105 counties in the State.

The Barton County Public Health Department seeks to help individuals, families, and communities put research-based knowledge to work to improve their lives.

The Emergency Management office is responsible for the mitigation, preparedness, response and recovery operations that deal with both natural and man-made disaster events. The formation of an emergency management department in each county is mandated under Kansas General Statutes.

The Treasurer is responsible for the oversight and management of the County's budget and fiscal programs, including the administration of state and federal grants.

Of the above-listed county departments, the following are actively involved in mitigation activities or hazard control tasks: Emergency Management, Sheriff, Road and Bridge, and County Engineer. Each of these departments has been involved in hazard analysis and the development of mitigation planning for the county in order to identify gaps, weaknesses or opportunities for enhancement of potential mitigation programs.

For the most part, it was determined that each of these departments are staffed, trained, and funded to accomplish their day-to-day missions. However, staff identified the need for expanded Information Technology and GIS capability to enhance countywide-planning capabilities. This need is further described in the mitigation actions.

City Government

Albert has a five-member elected City Council and mayor. Council members are elected at-large and serve on the board for two-year terms, the elections are not staggered.

Claflin has a five-member elected City Council and mayor. Council members are elected at-large and serve on the board for four-year terms, with elections staggered every two years.

Ellinwood has a five-member elected City Council and mayor. Council members are elected at-large and serve on the board for four-year terms, with elections staggered every two years. Ellinwood also has a City Administrator for management of day-to-day operations.

Galatia has a five-member elected City Council adn mayor. Council members are elected at-large and

serve on the board for two-year terms, the elections are not staggered.

Great Bend has an eight-member elected City Council and mayor. Council members are elected by dedicated area. Terms on the board are staggered two-year terms.

Hoisington has an eight-member elected City Council and mayor. Council members are elected by voter wards to two-year terms, which are staggered.

Olmitz has a five-member elected City Council and mayor. Council members are elected at-large to two-year terms, which are not staggered.

Pawnee Rock has a five-member elected City Council and mayor. Council members are elected at-large to two-year terms, which are not staggered.

Susank has a five-member elected City Council and mayor. Council members are elected at-large to four-year terms, which are not staggered.

The Boards of Education for USDs 112, 355, 428, and 431 are responsible for the operation of the county school system, and are also elected at large by the people. County funds usually maintain the buildings and provide funds for other capital projects, with state funds paying salaries, purchasing textbooks and supplies.

Barton Community College is governed by a six-member board of trustees elected from Barton County and coordinated by the Kansas Board of Regents. Every two years, during odd-numbered years, three board positions come up for election. Board terms are four years.

3.10.2 Legal and Regulatory Capability

In implementing a mitigation plan or specific action, a local jurisdiction may utilize any or all of the four broad types of government authority granted by the State of Kansas. The four types are defined as: (a) regulation, (b) acquisition, (c) taxation, (d) spending.

The scope of this local authority is subject to constraints, however, as all of Kansas' political subdivisions must not act without proper delegation from the State. Under a principle known as "Dillon's Rule," all power is vested in the State and can only be exercised by local governments to the extent it is delegated. Thus, this portion of the capabilities assessment will summarize Kansas' enabling legislation which grants the four types of government powers listed above within the context of available hazard mitigation tools and techniques.

Regulation

General Police Power

Kansas local governments have been granted broad regulatory powers in their jurisdictions. Kansas General Statutes (K.A.R.) bestow the general police power on local governments, allowing them to enact and enforce ordinances which define, prohibit, regulate or abate acts, omissions, or conditions detrimental to the health, safety, and welfare of the people, and to define and abate nuisances (including public health nuisances).

Since hazard mitigation can be included under the police power (as protection of public health, safety and welfare), towns, cities, and counties may include requirements for hazard mitigation in local ordinances. Local governments may also use their ordinance-making power to abate "nuisances," which could include, by local definition, any activity or condition making people or property more vulnerable to any hazard.

Barton County and the incorporated cities have enacted and enforce regulatory ordinances designed to promote the public health, safety and general welfare of its citizenry. These ordinances are discussed in this section.

Building Codes

Many structural mitigation measures involve constructing and retrofitting homes, businesses and other structures according to standards designed to make the buildings more resilient to the impacts of natural hazards. Many of these standards are imposed through the building code.

Kansas does not have state mandatory building codes. However, municipalities and counties may adopt codes for their respective areas if approved by the state as providing "adequate minimum standards".

Local governments in Kansas are also empowered to carry out building inspections, and may empower cities and counties to create an inspection department to enforce construction codes and ordinances.

Regulatory powers granted by the state to local governments are the most basic manner in which a local government can control the use of land within its jurisdiction. Through various land-use regulatory powers, a local government can control the amount, timing, density, quality, and location of new development. All these characteristics of growth can determine the level of vulnerability of the community in the event of a natural hazard. Land-use regulatory powers include the power to engage in planning, enacting and enforcing zoning ordinances, floodplain ordinances, and subdivision controls. Each local community possesses great power to prevent unsuitable development in hazard-prone areas.

Barton County (UnInc), Albert, Olmitz, Pawnee Rock, Susank, and Galatia reproted that they have not adopted building codes for their communities.

Claflin reported that it adopted the 1991 UBC (Uniform Building Codes).

Ellinwood reported that they have building codes for their community.

Great Bend reported that they have adopted the 2006 International Building Code, 2006 International Residential Code, 2005 National Electric Code, 2006 Uniform Plumbing Code, 2006 Uniform Mechanical Code, and 2006 International Fire Code.

Hoisington reported that it adopted the 1997 UBC, UFC, UPC, and UMC codes.

Planning

In order to exercise the regulatory powers conferred by the General Statutes, local governments in Kansas are required to create or designate a planning agency. The planning agency may perform a number of duties, which include the following: make studies of the area; determine objectives; prepare and adopt plans for achieving those objectives; develop and recommend policies, ordinances, and administrative means to implement plans; and perform other related duties. The importance of the planning powers of local governments is emphasized in Kansas statutes, which require that zoning regulations be made in accordance with a comprehensive plan. While the ordinance itself may provide evidence that zoning is being conducted "in accordance with a plan", the existence of a separate planning document ensures that the government is developing regulations and ordinances that are consistent with the overall goals of the jurisdiction.

Barton County (UnInc), Ellinwood, Great Bend, Hoisington, and Claflin reported that they have Planning Commissions to help guide growth in their communities.

The cities of Albert, Galatia, Pawnee Rock, Olmitz, and Susank reported that they have not established planning commissions for their communities.

County Resolutions

Barton County has adopted the following resolutions that are relevant to hazard mitigation. The ordinances will be considered when developing this Plan's Mitigation Strategy.

Barton county adopted an ordinance implementing a Emergency Management Department; Burn Permit Resolution #2005-04, adopted January 31, 2005; Zoning regulations adopted June 26, 2000; Subdivision regulations adopted June 26, 2000; Flood Permit Resolution; and Comprehensive Land Use Plan, adopted July 18, 2005.

City Ordinances

Albert - due to the continued decreasing population and tax revenue base, there are few regulatory functions the city enforces. With the exception of the floodplain management ordinance, Albert has not enacted other regulatory ordinances pertaining to mitigation activities.

Claflin - due to the continued decreasing population and tax revenue base, there are few regulatory functions the city enforces. With the exception of the building codes, Claflin has not enacted other regulatory ordinances pertaining to mitigation activities.

Ellinwood - has enacted and enforces regulatory ordinances designed to promote the public health, safety and general welfare of its citizenry. These ordinances includes a floodplain management ordinance, zoning ordinance, and building codes for their community.

Galatia - due to the small population and tax revenue base, there are few regulatory functions the city enforces. Galatia has not enacted any regulatory ordinances pertaining to mitigation activities.

Great Bend - has enacted and enforces regulatory ordinances designed to promote the public health, safety and general welfare of its citizenry. These ordinances includes a floodplain management ordinance, building codes, zoning, a stormwater management plan, subdivision regulations, and a comprehensive land plan.

Hoisington - has enacted and enforces regulatory ordinances designed to promote the public health, safety and general welfare of its citizenry. These ordinances includes a floodplain management ordinance, building codes and a comprehensive land plan.

Olmitz - due to the small population and tax revenue base, there are few regulatory functions the city enforces. Olmitz has not enacted any regulatory ordinances pertaining to mitigation activities.

Pawnee Rock - due to the small population and tax revenue base, there are few regulatory functions the city enforces. Pawnee Rock has not enacted any regulatory ordinances pertaining to mitigation activities, with the exception of a floodplain management ordinance.

Susank - due to the continued decreasing population and tax revenue base, there are few regulatory functions the city enforces. With the exception of participating in the NFIP under emergency status, Susank has not enacted other regulatory ordinances pertaining to mitigation activities.

Barton County Community College and the public school districts do not have regulatory authority as

granted to incorporated cities, but do abide by local jurisdiction code and regulation.

Zoning

Zoning is the traditional and most common tool available to local governments to control the use of land. Kansas statutes grant municipalities and counties broad enabling authority to engage in zoning for land use. Counties may also regulate inside municipal jurisdiction at the request of a municipality. The statutory purpose for the grant of zoning power is to promote health, safety, morals, and the general welfare of the community. Land "uses" controlled by zoning include the type of use (e.g., residential, commercial, industrial) as well as minimum specifications for use such as lot size, building height and set backs, density of population, etc.

Local governments are authorized to divide their territorial jurisdiction into districts, and to regulate and restrict the erection, construction, reconstruction, alteration, repair or use of buildings, structures, or land within those districts. Districts may include general use districts, overlay districts, special use districts or conditional use districts. Zoning ordinances consist of maps and written text.

Barton County (UnInc) and the towns of Ellinwood, Great Bend, and Hoisington have adopted zoning ordinances/regulations for their jurisdictions.

The towns of Albert, Claflin, Galatia, Pawnee Rock, Susank, and Olmitz reported that they have not adopted zoning ordinances.

Subdivision Regulations

Subdivision regulations control the division of land into parcels for the purpose of building development or sale. Flood-related subdivision controls typically require that sub-dividers install adequate drainage facilities and design water and sewer systems to minimize flood damage and contamination. They prohibit the subdivision of land subject to flooding unless flood hazards are overcome through filling or other measures, and they prohibit filling of floodway areas. Subdivision regulations require that subdivision plans be approved prior to the division and/or sale of land. Subdivision regulations are a more limited tool than zoning and only indirectly affect the type of use made of land and the specifications for structures on that land.

Broad subdivision control authority resides with the county for areas outside of municipalities and municipal extra-territorial planning jurisdictions. Subdivision is defined as all divisions of a tract or parcel of land divided into two or more lots and all divisions involving new streets. Application and approval for water meter installation play an important part in the planning process.

Barton County (UnInc) and Great Bend adopted subdivision regulations (July 15, 2002), to guide growth in the town.

The towns of Albert, Ellinwood, Claflin, Galatia, Hoisington, Pawnee Rock, Susank, and Olmitz reported that they have not adopted subdivision ordinances.

Floodplain Regulation

In February of 1992, the Kansas General Assembly approved legislation for floodplain management (K.S.A. 12-766, entitled "Floodplain Management") authorizing the Department of Agriculture, Division of Water Resources, as the primary department to oversee and approve local zoning regulation. The regulation requires planning and approval to prevent inappropriate development in the one hundred-year floodplain and to reduce flood hazards (Reference Kansas Statute for details).

The purpose of the law is threefold: (1) minimize the extent of floods by preventing obstructions that inhibit water flow and increase flood height and damage; (2) prevent and minimize loss of life, injuries, property damage and other losses in flood hazard areas; and (3) promote the public health, safety and welfare of citizens of Kansas in flood hazard areas. The new statute affects local governments by

directing, not mandating, them to do the following: (1) manage planned growth; (2) adopt local ordinances to regulate uses in flood hazard areas; (3) enforce those ordinances; (4) grant permits for use in flood hazard areas that are consistent with the ordinance. The act also makes certain that local ordinances meet the minimum requirements of participation in the National Flood Insurance Program (NFIP).

The incentive for local governments adopting such ordinances is that they will afford their residents the ability to purchase flood insurance through the NFIP. In addition, communities with such ordinances in place will be given priority in the consideration of applications for loans and grants from the Clean Water Revolving Loan and Grant Fund. Additional points may be awarded for actions taken toward the implementation of a comprehensive land-use plan, such as the adoption of a zoning ordinance or any other measure that significantly contributes to the implementation of the comprehensive land-use plan and the flood management ordinance.

Barton County (UnInc), and the cities of Albert, Claflin, Ellinwood, Great Bend, Hoisington, Susank, and Pawnee Rock have adopted Floodplain Management Ordinances, and currently participate in the National Flood Insurance Program.

The towns of Galatia and Olmitz reported that they do not participate in the NFIP as their communities are not located within a floodplain.

Acquisition

The power of acquisition can be a useful tool for pursuing local mitigation goals. Local governments may find the most effective method for completely "hazard-proofing" a particular piece of property or area is to acquire the property (either in fee or a lesser interest, such as an easement), thus removing the property from the private market and eliminating or reducing the possibility of inappropriate development occurring. Kansas legislation empowers cities, towns, counties to acquire property for public purpose by gift, grant, devise, bequest, exchange, purchase, lease or eminent domain (County Home Rule Powers, K.S.A. 19-101, 19-101a, 19-212).

Barton County acquired properties in a mitigation project following the April 2001 tornado in Hoisington. There were four properties purchased outside the southeast city limits of Hoisington.

Taxation

The power to levy taxes and special assessments is an important tool delegated to local governments by Kansas law. The power of taxation extends beyond merely the collection of revenue, and can have a profound impact on the pattern of development in the community. Communities have the power to set preferential tax rates for areas which are more suitable for development in order to discourage development in otherwise hazardous areas.

Local units of government also have the authority to levy special assessments on property owners for all or part of the costs of acquiring, constructing, reconstructing, extending or otherwise building or improving flood control within a designated area. This can serve to increase the cost of building in such areas, thereby discouraging development.

Because the usual methods of apportionment seem mechanical and arbitrary, and because the tax burden on a particular piece of property is often quite large, the major constraint in using special assessments is political. Special assessments seem to offer little in terms of control over land use in developing areas. They can, however, be used to finance the provision of necessary services within municipal or county boundaries. In addition, they are useful in distributing to the new property owners the costs of the infrastructure required by new development.

Barton County (UnInc), Albert, Claflin, Ellinwood, Galatia, Hoisington, Pawnee Rock, Susank, and Olmitz reported that they levy property taxes, but do not use any preferential tax districts or special assessments for mitigation planning.

Great Bend reported that they levy taxes to fund building inspections, stormwater management, and levee flood control.

Spending

The fourth major power that has been delegated from the Kansas General Assembly to local governments is the power to make expenditures in the public interest. Hazard mitigation principles can be made a routine part of all spending decisions made by the local government, including the adoption of annual budgets and a Capital Improvement Plan (CIP).

A CIP is a schedule for the provision of municipal or county services over a specified period of time. Capital programming, by itself, can be used as a growth management technique, with a view to hazard mitigation. By tentatively committing itself to a timetable for the provision of capital to extend services, a community can control growth to some extent, especially in areas where the provision of on-site sewage disposal and water supply are unusually expensive.

In addition to formulating a timetable for the provision of services, a local community can regulate the extension of and access to services. A CIP that is coordinated with extension and access policies can provide a significant degree of control over the location and timing of growth. These tools can also influence the cost of growth. If the CIP is effective in directing growth away from environmentally sensitive or high hazard areas, for example, it can reduce environmental costs.

Barton County (UnInc), and the cities of Albert, Ellinwood, Galatia, Claflin, Great Bend, Hoisington, Olmitz, Susank, and Pawnee Rock reported that they currently do not utilize capital improvement planning programs (CIP) for growth management.

3.10.3 Program Capability

This part of the capabilities assessment includes the identification and evaluation of existing plans, policies, practices, programs, or activities that either increase or decrease the community's vulnerability to natural hazards. Positive activities, which decrease hazard vulnerability, should be sustained and enhanced if possible. Negative activities which increase hazard vulnerability should be targeted for re-consideration and be thoroughly addressed within the Mitigation Strategy for the Barton County planning area.

National Flood Insurance Program (NFIP)

The decision on whether to join the NFIP is very important for a jurisdiction (community).There is no Federal law that requires a jurisdiction to join the program, and participation is voluntary.A benefit of participation is that the citizens are provided the opportunity to purchase flood insurance to protect themselves against flood losses. Another consideration is that a jurisdiction that has been identified by FEMA as being flood-prone and has not joined the NFIP within one year of being notified of being mapped as flood-prone will be sanctioned.

Jurisdictions that regulate development in floodplains are able to participate in the National Flood Insurance Program (NFIP). To participate in the NFIP the jurisdiction must adopt and enforce floodplain management regulations that meet or exceed the minimum requirements of the program.

The jurisdiction must submit an application package that includes the following:

- The jurisdiction must make an Application for Participation in the NFIP (FEMA Form 81-64);
- The jurisdiction must adopt a Resolution of Intent, which indicates an explicit desire to participate

in the NFIP and a commitment to recognize flood hazards and carry out the objectives of the program;
- The jurisdiction must adopt and submit Floodplain Management Regulations that exceed the minimum flood plain management requirements of the NFIP (Title 44 of the Code of Federal Regulations (44 CFR) section 60.3);
- The jurisdiction's floodplain management regulations must be legally enforceable.

Barton County (UnInc) adopted floodplain management regulations on August 3, 2009. The resolution applies to areas designated as Zone A on the existing FEMA DFIRM Maps dated September 2, 2009. Currently, 101 residents within the unincorporated area of the county have flood insurance with total coverage of $7,098,100. Since 1978, fourteen claims for a total of $44,742 have been made.

Claflin passed a Floodplain Management Ordinance on August 3, 2009 (Ordinance No. 09-0713). The majority of the properties located within the city limits of Claflin are identified as Flood Zone A on the FEMA DFIRMs. Currently, there is no information available for Claflin in the NFIP Insurance Claims Report.

Great Bend passed a Floodplain Management Ordinance on August 3, 2009 (Ordinance No. 4204). The majority of the Great Bend city limits is identified as Flood Zone X, protected by levee on the FEMA DFIRMs. This designation classifies the zone as outside the 100-year floodplain. Currently, twenty-three residents have flood insurance with coverage of $4,113,300. Great Bend has had 480 insurance claims since 1978 totaling $2,220,955.

Hoisington passed a Floodplain Management Ordinance on August 4, 2009 (Ordinance No. 1424). The majority of Hoisington city limits is identified as Flood Zone A on the FEMA DFIRMs. Currently, seventeen residents have flood insurance with coverage of $1,510,600. Hoisington has had eight insurance claims since 1978 totaling $32,575.

Pawnee Rock passed a Floodplain Management Ordinance on July 13, 2009 (Ordinance No. 315). The majority of Pawnee Rock city limits is identified as Flood Zone A on the FEMA DFIRM maps for the city. Currently, twenty-seven residents have flood insurance with coverage of $1,177,900. Pawnee Rock has had seven insurance claims since 1978 totaling $20,852.

Ellinwood passed a revised Floodplain Management Ordinance on May 12, 2009 (Ordinance No. 2009-5B). The flood zones identified in the city limits of Ellinwood are Zones AE and A on the FEMA DFIRMs. Currently, forty-five residents have flood insurance with coverage of $3,982,700. Ellinwood has had eight insurance claims since 1978 totaling $115,923.

Albert passed a Floodplain Management Ordinance on July 6, 2009 (Ordinance No. 88). The majority of Albert city limits are identified as Flood Zone A on the FEMA DFIRMs. Currently, twenty-three residents have flood insurance with coverage of $1,831,800. Albert has had two insurance claims since 1978 totaling $4,118.

Susank does not have any SFHAs, but currently participates in the NFIP (NSFHA).

The towns of Olmitz and Galatia do not currently participate in the NFIP as there are no areas of the town reported to be within a floodplain.

Barton County Community College, and Unified School Districts 112, 355, 428, and 431 reported that they do not have any facilities located within a floodplain.

Community Rating System Activities (CRS)

Jurisdictions that regulate development in floodplains are able to participate in the National Flood Insurance Program (NFIP). In return, the NFIP makes federally backed flood insurance policies available for properties in the jurisdiction. The Community Rating System (CRS) was implemented in 1990 as a program for recognizing and encouraging jurisdiction floodplain management activities that exceed the minimum NFIP standards. There are ten CRS classes. Class 1 requires the most credit points and earns the largest premium reduction, while Class 10 receives no premium reduction. It is a long process to become a participating CRS community, taking almost one year from application to acceptance. New CRS communities are admitted only on October 1 and May 1 of each year.

Barton County (UnInc) and the incorporated cities do not participate in the CRS program.

Recent Hazard Mitigation Efforts

The City of Great Bend has taken steps to reduce exposure to flood. Following the flood of 1981, Great Bend implemented a flood control levee project along the southern city limits to reduce flooding along the Arkansas River. The levee is constructed of both earthen and concrete materials and was built by the US Army Corps of Engineers over an eight year period. The last inspection was conducted in 2005. The levee is now owned and maintained by the City of Great Bend. Additional information is provided in the Dam/Levee hazard profile.

Emergency Operations Plan

Barton County has developed and adopted an Emergency Operations Plan that pre-determines actions to be taken by government agencies and private organizations in response to an emergency or disaster event. This plan was developed according to the requirements of the Kansas Planning Standard which incorporates Federal requirements in place at the time of development. The county is currently in the process of updating their LEOP to current State and Federal standards. For the most part, the Plan describes the county's capabilities to respond to emergencies and establishes the responsibilities and procedures for responding effectively to the actual occurrence of a disaster.

The plan does not specifically address hazard mitigation, but it does identify the specific operations to be undertaken by the county to protect lives and property immediately before, during and immediately following an emergency. There are no foreseeable conflicts between this Hazard Mitigation Plan and Barton County's Emergency Operations Plan, primarily because they are each focused on two separate phases of emergency management (mitigation vs. preparedness and response).

The incorporated cities within Barton County are not designated as "jurisdictions" as defined by the State of Kansas and therefore have not developed and adopted an Emergency Operations Plan. The cities rely on the Barton County Emergency Operations Plan in the event of an emergency or disaster event.

Comprehensive Land Use Plan

A Comprehensive Land Use Plan is designed with the goal of balancing environmental protection with economic development in all areas of the jurisdiction. This plan coupled with various other planning efforts provides resources to local leaders to establish policies to guide the development of the community. Annexation, expansion, and building projects are generally guided by these documents.

Barton County (UnInc), Great Bend, and Hoisington reported that they have adopted Comprehensive Land Use Plans to guide growth and development in their commuinities.

The towns of Albert, Claflin, Ellinwood, Galatia, Pawnee Rock, Susank, and Olmitz reported that they do not have a Comprehensive Land Plans for their communities.

Barton County supports the use of best management practices recommendations of the United States Soil Conservation Service.

Floodplain Management Plan

A Floodplain Management Plan (FMP) is a future-oriented approach to planning in flood risk areas. It's a pre-disaster planning approach that is required by the Federal Emergency Management Agency (FEMA) to continue to participate in the National Flood Insurance Program's Community Rating System (CRS).

Barton County and the cities of Great Bend, Hoisington, Ellinwood, Pawnee Rock, Albert, Susank, and Claflin reported that they do not currently have a comprehensive floodplain management plan for purposes of the National Flood Insurance Program's Community Rating System (CRS). However, this Hazard Mitigation Plan is intended to fulfill the CRS planning requirement when it becomes adopted, and will be maintained as such.

Stormwater Management Plan

The purpose of the Stormwater Management Plan is to comprehensively address how to meet the many different but related regulations, adopted plans and programs, and policies that affect urban stormwater, flooding and associated water-dependent resources.

Barton County (UnInc) and the cities of Albert, Ellinwood, Claflin, Galatia, Hoisington, Olmitz, Susank, and Pawnee Rock reported that they have not adopted stormwater management plans.

Great Bend reported that they adopted a stormwater management plan in 2009.

3.10.4 Fiscal Capability

Barton County has reported that they have the fiscal capability to implement hazard mitigation strategies and could afford to provide the local match for hazard mitigation grant programs if the State of Kansas did not do so itself. However, the current revenue shortfalls at both the state and local government level in Kansas, and the apparent increased reliance on local accountability by the federal government, are a significant and growing concern for Barton County. For fiscal year 2009, Barton County's adopted budgeted expenditures were $22,845,753. The majority of these funds are obligated to basic county support services, human services and education. Barton County receives 30% of its revenues through Ad Valorem taxes with the remaining revenues coming from various other sources.

Albert has reported that they have very limited fiscal capability to implement hazard mitigation strategies due to the general economic, environment, and budget pressures in the city. For fiscal year 2010, Albert's adopted budgeted expenditures were $244,427. The majority of these funds are obligated to basic support services and human services. Albert reported that it could not provide the local match for the hazard mitigation strategies.

Claflin has reported that they have very limited fiscal capability to implement hazard mitigation strategies due to the general economic, environment, and budget pressures in the city. For fiscal year 2010, Claflin's adopted budgeted expenditures were $622,278. The majority of these funds are obligated to basic support services and human services. Claflin reported that it could not provide the local match for the hazard mitigation strategies.

Ellinwood has reported that they have limited fiscal capability to implement hazard mitigation strategies

due to the general economic, environment, and budget pressures in the city. For fiscal year 2010, Claflin's adopted budgeted expenditures were $4,313,921. The majority of these funds are obligated to basic support services and human services. Ellinwood reported that affordability would depend on the size and type of mitigation projects, and availability of grant funds for projects.

Galatia has reported that they have very limited fiscal capability to implement hazard mitigation strategies due to the general economic, environment, and budget pressures in the city. For fiscal year 2010, Galatia's adopted budgeted expenditures were $27,534. The majority of these funds are obligated to basic support services and human services. Galatia reported that it could not provide the local match for the hazard mitigation strategies.

Great Bend has reported that they have limited fiscal capability to implement hazard mitigation strategies due to the general economic, environment, and budget pressures in the city. For fiscal year 2009, Great Bend adopted budgeted expenditures were $20,075,000. The majority of these funds are obligated to basic support services and human services. Great Bend reported that it could provide the local match for the hazard mitigation strategies.

Hoisington has reported that they have limited fiscal capability to implement hazard mitigation strategies due to the general economic, environment, and budget pressures in the city. For fiscal year 2010, Hoisington adopted budgeted expenditures were $7,743,747. The majority of these funds are obligated to basic support services and human services. Hoisington reported that it could provide the local match for hazard mitigation strategies.

Olmitz has reported that they have very limited fiscal capability to implement hazard mitigation strategies due to the general economic, environment, and budget pressures in the city. For fiscal year 2010, Olmitz's adopted budgeted expenditures were $157,086. The majority of these funds are obligated to basic support services and human services. Olmitz reported that it could not provide the local match for the hazard mitigation grant programs.

Susank has reported that they have very limited fiscal capability to implement hazard mitigation strategies due to the general economic, environment, and budget pressures in the city. For fiscal year 2010, Susank's adopted budgeted expenditures were $24,730. The majority of these funds are obligated to basic support services and human services. Susank reported that it could not provide the local match for the hazard mitigation grant programs.

Barton County Community College reported $24,000,000 in budgeted expenditures for the year 2008. BCCC reported that it could not provide the local match for the hazard mitigation strategies.

USD 112 is funded through local taxation. These funds generally maintain buildings, provide funds for capital projects, and also include paying salaries, purchasing textbooks and supplies. USD 112's total budgeted expenditures for 2007/2008 were $2,750,973. USD 112 reported that it could not afford to provide the local match for the hazard mitigation strategies.

USD 428 is funded through local taxation. These funds generally maintain buildings, provide funds for capital projects, and also include paying salaries, purchasing textbooks and supplies. USD 428's total budgeted expenditures for 2008/2009 were $41,656,585. USD 428 reported that it could afford to provide the local match for the existing hazard mitigation strategies.

USD 355 is funded through local taxation. These funds generally maintain buildings, provide funds for capital projects, and also include paying salaries, purchasing textbooks and supplies. USD 355's total

budgeted expenditures for 2008 were $5,952,043. USD 355 reported that it could afford to provide the local match for the existing hazard mitigation strategies.

USD 431 is funded through local taxation. These funds generally maintain buildings, provide funds for capital projects, and also include paying salaries, purchasing textbooks and supplies. USD 431's total budgeted expenditures for 2008/2009 were $7,732,317. USD 431 reported that it could not afford to provide the local match for the existing hazard mitigation strategies.

Small Impoverished Community Criteria

Under the Disaster Mitigation Act of 2000, FEMA has made special accommodations for "small and impoverished communities", who will be eligible for a 90% Federal share, 10% non-Federal cost split for projects funded through the Pre-Disaster Mitigation Grant Program. The community must meet all of the following criteria:

- Must be a community of 3,000 or fewer individuals that is identified by the state as a rural community, and is not a remote area within the corporate boundaries of a larger city;
- Must be economically disadvantaged, with residents having an average per capita annual income not exceeding 80 percent of the national per capita income, based on best available data;
- Must have a local unemployment rate that exceeds by one percentage point or more the most recently reported, average yearly national unemployment rate;
- Must meet any other factors as determined by the state/Indian tribe/territory in which the community is located.

Each jurisdiction should consider potential eligibility under this criteria when developing project grant applications and funding alternatives.

3.10.5 Political Willpower

Many Barton County residents are becoming more knowledgeable about the potential hazards that their jurisdiction faces, and in recent years, they have become more familiar with the practices and principles of mitigation. Although the county has a sparse population density with a small tax base, its recent adoption of the National Flood Insurance Program, and the steps taken to update its emergency operations programs, provide some insight into the county's desire to comply with mitigation policy and procedure. It is strongly believed that such tangible changes within the county have created a greater sense of awareness among local residents, and that hazard mitigation is a concept that they are beginning to readily accept and support.

Because of this belief, coupled with Barton County’s history with natural disasters, it is expected that the current and future political climates are and will be favorable to supporting and advancing future hazard mitigation strategies.

