
SECTION 4

Introduction to Mitigation

Definition of hazard mitigation

“Hazard Mitigation” means to permanently reduce or alleviate the losses of life, injuries, and property resulting from natural and human-made hazards through long-term strategies.

Categories of Hazard Mitigation

Long-term strategies include planning, policy changes, programs, projects, and other activities. Mitigation is the responsibility of individuals, private businesses, industries, and state, local and federal governments. In general, all of these activities fall into one of the following broad categories of mitigation:

1. Prevention

Preventative activities are intended to keep hazard problems from getting worse. They are particularly effective in reducing a community’s future vulnerability, especially in areas where development has not occurred or capital improvements have not been substantial. Examples of preventative activities include:

- a) Planning and Zoning
- b) Open space preservation
- c) Floodplain regulations
- d) Stormwater management
- e) Capital improvements programming

2. Property Protection

Property protection measures protect existing structures by modifying the building to withstand hazardous events, or removing structures from hazardous locations. Examples include:

- a) Acquisition
- b) Relocation
- c) Building elevation
- d) Critical facilities protection
- e) Retrofitting (i.e., windproofing, floodproofing, seismic design standards, etc.)

-
- f) Insurance
 - g) Safe rooms

3. Natural Resource Protection

Natural resource protection activities reduce the impact of natural hazards by preserving or restoring natural areas and their mitigative functions. Such areas include floodplains and wetlands. Parks, recreation, or conservation agencies and organizations often implement these measures. Examples include:

- a) Floodplain protection
- b) Riparian buffers
- c) Fire resistant landscaping
- d) Fuel Breaks
- e) Erosion and sediment control
- f) Wetland preservation and restoration
- g) Habitat preservation
- h) Slope stabilization

4. Structural Projects

Structural mitigation projects are intended to lessen the impact of a hazard by modifying the environmental natural progression of the hazard event. They are usually designed by engineers and managed or maintained by public works staff. Examples include:

- a) Reservoirs
- b) Levees/floodwalls
- c) Diversions / Detention / Retention
- d) Channel modification
- e) Storm sewers

5. Emergency Services

Although not typically considered a “mitigation technique,” emergency service measures do minimize the impact of a hazard event on people and property. These commonly are actions taken immediately prior to, during, or in response to a hazard event. Examples include:

- a) Warning systems
- b) Evacuation planning and management
- c) Sandbagging for flood protection
- d) Installing shutters for wind protection

6. Public Information and Awareness

Public information and awareness activities are used to advise residents, business owners, potential property buyers, and visitors about hazards, hazardous areas, and mitigation techniques they can use to protect themselves and their property. Examples of measures to educate and inform the public include:

- a) Outreach projects
- b) Speaker series / demonstration events
- c) Hazard map information
- d) Real estate disclosure
- e) Library materials
- f) School children education
- e) Hazard expositions

Mitigation Versus Preparedness, Response, and Recovery

Comprehensive emergency management is a widely-used approach at the local, state, and federal levels to deal with the inevitability of natural hazards and their potential to cause disasters in a given community. The components of a comprehensive emergency management system include:

1. **Preparedness** activities which are undertaken to improve the ability to respond quickly in the immediate aftermath of an incident. Preparedness activities include development of response procedures, design and installation of warning systems, exercises to test emergency operational procedures, and training of emergency personnel.

2. **Response** activities occur during or immediately following the disaster, and include such time-sensitive items as search and rescue operations, evacuation, emergency medical care, food, and shelter programs. Response activities are designed to meet the urgent needs of disaster victims.

3. **Recovery** activities are emergency management actions which begin after the

disaster, as urgent needs are met. These actions are designed to put the community back together, and include repairs to roads, bridges, and other public facilities, restoration of power, water, and other municipal services, and other activities that help restore normal operations to a community.

4. Mitigation activities reduce or eliminate the damages from hazardous events. These activities can occur before, during, and after a disaster, and overlap all phases of emergency management. Structural mitigation pertains to actions such as dam and levee projects to protect against flooding, constructing disaster-resistant structures, retrofitting existing structures to withstand events, etc. Non-structural mitigation activities include development of land use plans, zoning ordinances, subdivision regulations, and tax incentives and disincentives to discourage development in certain high-hazard areas. Mitigation also includes education programs for members of the public about the hazards to which their community is vulnerable, as well as the importance of mitigation and how to prepare their property to withstand a disaster.

Mitigation Plan Benefits

Mitigation planning offers many benefits that include saving lives and property, speeding recovery following disasters, and insuring the community has full access to both pre-disaster and post-disaster federal/state funding. Mitigation planning will potentially reduce the loss of essential services, critical facilities, and economic hardship.

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.

Mitigation planning will also lead to benefits that go beyond solely reducing hazard vulnerability. Measures such as the acquisition or regulation of land in known hazard areas can help achieve multiple community goals. These goals include preserving open space, maintaining environmental health and natural features, and enhancing recreational opportunities. Many of these common goals will become increasingly

evident as a community begins to walk through the local mitigation planning process.

County Hazard Mitigation Goals, Strategy and Coordination

Mitigation Goals and Actions

Goals are statements or desirable future conditions that are to be achieved.

Actions are more tangible and specific than goals and may be quantified. Joint meetings between the Bootheel Regional Planning Commission staff, local public officials, and the steering committee for Mississippi County developed the original goals in the 2005 Plan. To re-evaluate the goals and actions, the following public participation occurred. (See examples of public participation)

- A questionnaire was mailed to each participating jurisdiction on January 6, 2010 to update goals and actions and to update information on mitigation activities in their communities. An example of the questionnaire is included below.

January 6, 2010

City Clerk: East Prairie

Questions to be answered for five-year update of Natural Hazard Mitigation Plan

Does your city/county have the following?

Emergency Operations Plan Yes No
 Zoning Ordinances Yes No
 Building Codes Yes No
 Earthquake Codes Yes No
 Subdivision Regulations Yes No
 Stormwater Regulations Yes No
 Floodplain Regulations Yes No
 Outdoor Warning Sirens Yes No How Many? 1
 Participate in the National Flood Insurance Program Yes No
 Water Service(Name) City of East Prairie
 Sewer Service(Name) City of East Prairie
 Electric Service(Name) Ameren, LLC
 Fire Service(Name) City of East Prairie
 Ambulance Service(Name) Missouri, pp. County Ambulance Serv.

Since 2004 Missouri has been impacted by 16 declared natural disasters. Seven of those have impacted most of the Bootheel counties. **What has your city/county done to protect (mitigate) your citizens from injury or property damage?** Some examples might be new building codes, better drainage, tree trimming, purchase generators, designate safe areas for tornadoes, warm spaces for power outages, better training for emergency workers, or public meetings to better inform citizens. List those your city has done.

We have adopted the latest building codes, updated our EOP, Trimmed trees throughout the city, developed food + warming centers, developed better training for employees, try to better inform the public of safety + survival methods

Date 1-7-09

- Bootheel staff met with Mississippi County School Superintendents on January 26, 2010 to discuss school district involvement in Plan updates. Those not in attendance were mailed information concerning their district's involvement.

Scott-Mississippi County Superintendents		
January 26, 2010 Sikeston Country Club		
Mississippi County Schools		
District Name	Representative/Title	Telephone/E-Mail
Charleston R-I	Andrew F. Downes / Supt	573-683-3776 andrew@charleston.k12.mo.us
East Prairie R-II	Scott Downing / Supt	573-649-7562 sdownin@eprairie.k12.mo.us
Scott County Schools		
Scott County Central	Dr. Debra J. / Supt	573-471-2686 jmcferren@scschools.k12.mo.us
Sikeston R-VI		
Oran R-III	Mich Wined / Supt	573-262-2330 mwined@oran.k12.mo.us
Scott City R-I	Diana Bradshaw-Wimer	573-264-2351 dbrad@scschools.k12.mo.us
Kelso C-7	Bill Kogler	573-545-2557 bkogler@kelso.k12.mo.us
Chaffee R-II	Ken Latham / Superintendent	573-897-3552 klatham@chaffee.k12.mo.us
Scott County R-IV	Don Moore / Superintendent	573-545-3887 dmoore@kelly.k12.mo.us
Other Representatives		

- Bootheel Staff met with Mississippi County Commission on February 11, 2010 to discuss Mitigation Plan updates.

Date: 2/11/2010

Mississippi County Hazard Mitigation Plan Update

Met with ^{on 2/11/10} ~~Scott~~ County Commissioners

Topics of meeting included:

- Discussion of Plan Updates
- Reviewed Importance of Plans
- Reviewed Goals & Objectives
- Discussed Pre-Mitigation Grant Program
- Discussed County Jurisdictions Involved in Plan

Signed: [Signature] Date 2-11-10

[Signature] Date 2-11-10

[Signature] Date 02/11/2010

_____ Date _____

- The following two articles appeared in the Mississippi County Times on February 16, 2010 and the Standard Democrat on February 12, 2010.

city could face fines. The city has until January 2012 to make the improvements. The council authorized City Manager Dan Gruen to present financial information as to how the city will eventually pay for the project. He will be contacting other surrounding communities to see how they are addressing the issue.

For such a project, grant funding may not be possible as funding agencies could require the city to install household meters and residents could see a substantial increase in their water/wastewater bills.

In other business, the council will allow the placement of the original school bell at the former Eugene Fields School, located behind the Charleston Kindergarten. The Mississippi County Historical Society will own the bell and the city will spend funds to install the bell on the property. The 500 pound bell served the school for well over 100 years.

Rick Reed was reappointed to serve on the city's park advisory board.

The city will increase their charge to \$20 for attempting to pass a bad check.

The speed limit on a portion of East Ironbanks will be increased from 30 miles per hour to 40 miles per hour.

Police Chief Bobby Hearnes presented his monthly summary. During January, his department responded to 711 calls for service, conducted 41 arrests and issued 41 citations.

Hearnes invited the council to visit the fire bay as recent renovations have taken place. The fire department has received a grant in the amount of \$5,000 from the Conservation Department to purchase hand tools,

Company will be contacted requesting a representative to meet with the commission this week.

In other business, Mike Dumeay of Bootheel Regional Planning met with the commission informing them that they are in the process of updating the county's Hazard Mitigation Plan. Dumeay gave a brief history of the implementation of the plan that is required to be adopted before any state or federal emergency funds will be disbursed.

"In 2003 a bunch of money was given for natural disasters," said Dumeay. "In 2004, a law was passed requiring states and counties to come up with ideas to help offset disaster expenses."

He noted that the core of the plan is to come up with goals and objectives to address disasters that occur in this area such as drought, floods, tornados, and earthquake. He also said that included this year, school districts will need to adopt a disaster plan. The county's current plan expires January 10, 2011. Dumeay said that minimal changes will be needed such as the designation of a safe home for citizens to come to in case of an emergency.

DeLay noted that in the old courthouse, the basement was used as a shelter during tornado warnings. "You would be surprised how many people used that thing," he said. The county will receive a copy of the plan once it is updated.

Also, the commission met with Sheriff Keith Moore and John Hadenfeldt, detention administrator, to discuss payroll issues. Commissioners believe that some employees of the department are receiving unnecessary overtime hours, particularly in

not going to be able to fund your budget next year."

Moore indicated that they are doing everything they can to cut corners. One position at the center has already been eliminated.

Moore informed commissioners that he is considering directing deputies to patrol the interstates in attempt to produce more revenue for the county by issuing tickets. Right now the ticket money goes to the state. Moore will discuss the issue further with the prosecuting attorney.

Robert Jackson, first district commissioner, requested the sheriff and administrator to research how many ICE inmates the county must house before it begins costing the county money.

Lent from page 2

short to lie and cheat and tear down. Lent is a time to give up our bad, sinful, habits!

Ash Wednesday marks a new beginning for us all! During Lent, we have an opportunity to choose a better way of living: love for God and love for all the people he has created, doing good for others in every way we can, saying a good, encouraging word to people; forgiving a person 49 times when we have been hurt by them; working for the good of all people instead of looking out for #1. Lent is a good time to add some good habits to life!

Ash Wednesday marks a new beginning for all of us! The door to the Church is open! The Altar stands ready to receive us! The Ashes of Repentance have been prepared for us! The Lord God invites us all to come and receive the gift of new life, eternal life!

Lent will be what we make! Ash Wednesday is an



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Cade Coon
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113 N. Main - 108 S. Washington
Charleston East Park

First Assembly of God
Morning Worship 10 a.m.
Wed. Night Bible Study 7:00
Church of Christ
701 S. Ninth St.
Preacher: Gary Hill
Sunday School 9:30 a.m.
Sunday Morning 10:30 a.m.
Sun. Evening 8:00 - 11:00
Church of God
1113 Rear S. Main
Pastor: Johnnie Mae Ro
Sabbath School 10:00 a.m.
Worship Service 11:00 a.m.
Ella Street Baptist Church
Highway 155
Rev. Jim Archer
Sunday School 9:30 a.m.
Sun. Morning 10:30 - Evening
Wednesday Evening 8:30
First Assembly of God
622 S. Main
Pastor: Gerald Peon
Sunday School 9:30 a.m.
Sunday Morning 10:30
Evening Prayer 8:00 -
Sun. Evening 8:00
Wednesday 7:00 p.m.
First Baptist Church
301 S. Main
Rev. Michael Bohaw
Sunday School 9:30 a.m.
Sun. Morning 10:45 - Evening
Wed. Prayer Meeting 8:30
First Christian Church
Pastor: Jim Matigan
Cypress & Virginia
Sunday School 9:30 a.m.
Sunday Morning 10:30 a.m.
Wednesday 7:00 p.m.
Grand Ave. 7th Day Advent
827 Grand Ave.
Pastor: Fred Mangione
Sabbath School 8:15 a.m.
Celebration Service 11:00 a.m.
Tues. Night Prayer Mtg.
Joy H. 7 p.m.
First General Baptist Chu
107 Ashby
Pastor: Rev. Bill Meeks &
Jim Brown
Sunday School 9:45 a.m.
Morning Worship 10:45 a.m.
Sunday Evening 8:00 p.m.
Wednesday Evening 7:00 p.m.
Kingdom Living Church
103 S. Center St.
Non-Denominational Full Ge
Pastor: Glenn Casshee
Sunday Service 10:30 a.m.
Wednesday Evening 7:00 p.m.
Mercy East Baptist Church
415 W. Marshall
Pastor: Rev. Arthur E. Cox
Sunday School 9:30 a.m.
Sunday Worship 11 a.m.
Choir Rehearsal - Tues. 7 p.m.
Prayer Meeting - Wed. 6 p.m.
Bible Class - Wed. 8:30 p.m.
Restored Hope Apostolic Ch
715 S. Thom
Pastor: Dennis Ireland
Sun. School 2 p.m.
Worship 3 p.m.
Tuesday Evening 7:00 p.m.
Shiloh Baptist Church
Lottel Street
Sunday School 9:30 a.m.
Sunday Morning 10:45 a.m.
Wednesday 7:00 p.m.
Southside Baptist Church
Pastor: Mike McKinney
302 School St.
Sunday School 9:30 a.m.
Sun. Morning 10:30 - Evening
Wednesday 6:30 p.m.
St. Henry Catholic Church
304 Court St.
Pastor: Fr. Glenn Collins
Parish: Holy Trinity

Plans required to remain eligible for FEMA help

Page 1 of 3

Publication: Standard Democrat; Date: Feb 12, 2010; Section: Front Page; Page: 1



MISSISSIPPI COUNTY

Plans required to remain eligible for FEMA help

By Scott Welton scottw@standard-democrat.com

CHARLESTON — Schools and cities will soon need to adopt a hazard mitigation plan in order to remain eligible for FEMA help in 2011.

Mike Dumey of the Bootheel Regional Planning and Economic Development Commission at Dexter presented Mississippi County commissioners with updated information about hazard mitigation plans during their regular meeting Thursday.

Beginning in 2011, cities and schools must have adopted their respective county's hazard mitigation plan in order to be eligible for FEMA assistance following a disaster, according to Dumey.

Dumey said the Federal Emergency Management Agency began requiring the plans in 2004 for counties to be eligible for FEMA assistance in an effort to bring down its costs related to national disasters.

For example, FEMA determined it would be cheaper to buyout properties in Commerce that flood roughly every two years rather than have taxpayers fund recovery efforts every other year, he said.

Mitigating the effect of ice storms "is simply trimming trees," Dumey said. "The next ice storm, I think Mississippi County is going to be in much better shape."

The goals of the hazard mitigation plans are to reduce the loss of lives and property. The State Emergency Management Agency has determined the disasters for Missouri to be prepared for are droughts, earthquakes, floods, heat waves, severe winter weather, thunderstorms and tornadoes.

Dumey said he is beginning to work on the revisions, which are required every five years, to hazard mitigation plans for the Bootheel counties.

He said SEMA officials want to be able to approve the revised plans nine months before the current plans expire on Jan. 10.

The only addition appears to be information about safe rooms that are being constructed at schools with FEMA funding, he said.

"These things look like bunkers," Dumey said, and are built to withstand 250-mph-winds.

As most of the safe rooms are equipped with generators, they can also be used as a warm space during winter weather disasters.

Presiding Commissioner Jim Blumenberg said he would like to see the Charleston and East Prairie school districts partner with the cities and county to build safe rooms at both of the county's two public school districts.

"We don't have anything like that that I am aware of," he said.

Missouri has had 16 national disasters since 2004, according to Dumey, with seven of those affecting Bootheel counties.

http://digital.olivesoftware.com/Repository/getFiles.asp?Style=OliveXLib:LowLevelEntityToPrint_STANDARDDEMOCRATA... 3/4/2010

- The following article appeared in the Enterprise-Courier, weekly newspaper in Mississippi County.

AFFIDAVIT OF PUBLICATION

State of Missouri }
 County of Mississippi }

I, Kevin Pritchett, being duly sworn according to law, state that I am the editor of The Enterprise-Courier, a weekly newspaper of general circulation in the County of Mississippi, where located, which has been admitted to the Post Office as second-class matter in the City of East Prairie, the city of publication, which newspaper has been published regularly and consecutively for a period of three years and has a list of bona fide subscribers voluntarily engaged as such who have paid or agreed to pay a stated price for subscription for a definite period of time, and that such newspaper has complied with the provisions of Section 493.050 Revised Statutes of Missouri, 1949. The facsimile of the legal notice appeared in said newspaper on the following consecutive weeks (issues):

The Bootheel Regional Planning Commission is currently updating the Natural Hazard Mitigation Plan for Mississippi County. All businesses, utilities, media, public officials, and general public from Mississippi County and surrounding areas are invited to comment on the Plan. The Mississippi County Natural Hazard Mitigation Plan can be accessed by logging on the Commission's website at www.bootpc.com. All comments and suggestions are welcomed.

From: March 11, 2010 To: March 11, 2010
 First insertion: March 11, 2010
 Second insertion: _____
 Third insertion: _____
 Fourth insertion: _____
 (Signed) *Kevin Pritchett*
 (Editor)

Subscribed and sworn to before me this 30th day of March-10

Lisa K. Brown Notary Public.
 Filed and Recorded this 30th day of March 2010

Printers Fee \$12.40 No. _____
 Signature of Notary *Lisa K. Brown*

Notary Public
 My Commission Expires: Friday, October 25, 2013

LISA K. BROWN
 Notary Public - Notary Seal
 State of Missouri
 Commissioned by Mississippi County
 My Commission Expires Oct. 25, 2013
 CLM# 22409-110251104

- Bootheel staff met with county officials, University of Missouri, and Department of Economic Development officials to discuss mitigation planning in all Bootheel counties.

Bootheel Regional Planning & Economic Development Commission
Meeting Attendance Record

Date: June 8, 2010 Type of Meeting: Work Time: 12:00

Name	Representing	Address	Phone & Email
John Parris	Carroll		
Frank Sifford	Scott County	P.O. Box 257 Bloomfield Mo. 65215	572-552-3722
AL-BANKEN ✓	Dexter Fire Dept.	301 Cooper Dexter Mo 65721	572-552-3722
Paul Eskew ✓	City of Scott City	215 Chestnut Ave	264-2157
John Steiner ✓	Stoddard Co IPA	P.O. Box 24 Brown F. 27 63916	572-4400 jst@stod.co
Joe Weber	City of Dexter	708 South Main St	624-5141
JANET COLEMAN ✓	Dexter Chamber	P.O. Box 21 Dexter 63841	info@dexterchamber.co
Don Collins	Dunklin County	P.O. Box 69 Kennett Mo 63857	573-887-7100 don@15c-eps.com
Hendall Ramsey	City of Parma	P.O. 668 Parma MO 63870	maury@parma@bri.net
Dave Hays	North Perry	Bluefield, MO	573-566-5305
William Joseph	City of Centerville	206 W. 3rd Cent MO	will@centervillecity.com
Tony Rushing ✓	City of Centerville	200 West 3rd Cent MO 63822	1790 for P.O. Centerville, Mo
Charles Jones ✓	City of Centerville	104 E. 7th St Centerville MO	573-332-2252
John Ferguson ✓	Il		
Doreen Bourne ✓	City of East Prairie	219 N. Washington	administrator@eastprairie-mo
John Combs ✓	Scott County	P.O. Box 188 Benton MO	ced@scottco.mo.gov
Blair St. John	12 st Mo-Columb	304 Court Hall, Columbia	stjohn@missouri.edu
Michael J. M. N.	Dept of Econ Dev.	201 College Street Joplin	m.j.m.n@ed.mo.gov

We are up-dating our records continuously, please complete the attendance record. Thank you for your cooperation.

- A second meeting with county officials, University of Missouri, and Department of Economic Development to discuss plans for all of the Bootheel counties.

Mississippi County Regional Planning & Economic Development Commission
Meeting Attendance Record

Recovery - no spend
Date: June 17, 2010 Type of Meeting: DED Time: 12:00

Handwritten notes: Mike Hodge - 873, Alan at phone - 873-210-Columbia

Name	Representing	Address	Phone & Email
Katrina Hodges	Dunklin County Transit	PO Box 293, Malden, MO 63863	detemalden@stcglobal.net
TED BEGGERS	CITY OF MALDEN	201 S. MADISON, MALDEN, MO 63863	ted@beccom.com
AL-BANKEN	DEXTER FIRE M.	301 COPPER DR, G. MO 63841	637-3948 520-1557 Dexter Fire Dept 63841, MOA. Charles Jones 12 E 2nd Mill, Mo 523-337-2353
Charles Jones	City of Caruthersville	104 E 24th St Caruthersville, MO 63840	523-337-2353
Hlanda Miller	City of Dudley	12377 Center St	573-624-3821
Mary Duggan	City of Dudley	12377 Center St.	573-624-3831
John F. Huel	Carroll		
JESS-E NEWSON	City of Howardville	102 Howard, Howardville, MO	573-688-2137
Jessie E. Newsom	City of Cardigan	219 N Washington, E. Paducah	649-3057
Carl P. Ems	Scott County	PO Box 436, Benton, MO 63706	(573)545 3549
JESS-E NEWSOM			Howardville jessie@kahan.com
Michael Hugg	PRR	105 E. NORTH MAIN, Paducah	649-3057

We are up-dating our records continuously, please complete the attendance record. Thank you for your cooperation.

Evaluation

All mitigation goals, actions, and strategies from the 2005 Plan were re-evaluated at the mitigation workshops. Participants reviewed the approved original goals and actions, determined them to remain effective and valid or recommended changes and assessed whether the goals and actions lead to mitigation projects or policy changes.

For the 2010 Hazard Mitigation Plan Update, the Planning Committee and workshop participants assessed progress made on the 2005 Mississippi County strategy. The chart below illustrates the findings of the planning committee. Following the chart is a listing of the goals and actions that comprised the 2005 Plan strategy.

2005 Plan Strategy-Hazard Mitigation Goals and Actions

Jurisdiction	Goal 1	Act 1.1	Act 1.2	Act 1.3	Act 1.4	Goal 2	Act 2.1	Act 2.2	Act 2.3	Act 2.4	Goal 3	Act 3.1	Act 3.2	Act 3.3	Goal 4	Act 4.1	Act 4.2	Act 4.3	Goal 5	Act 5.1	Act 5.2	Act 5.3
Mississippi County	P	N	N	N	N	P	P	P	P	P	P	N	P	P	P	P	P	P	P	P	P	P
Anniston	P	N	N	N	N	P	P	P	P	P	P	N	P	P	P	P	P	P	P	P	P	P
Bertrand	P	N	N	N	N	P	P	P	P	P	P	N	P	P	P	P	P	P	P	P	P	P
Charleston	P	N	N	N	N	P	P	P	P	P	P	N	P	P	P	P	P	P	P	P	P	P
East Prairie	P	N	N	N	N	P	P	P	P	P	P	N	P	P	P	P	P	P	P	P	P	P
Pinhook	P	N	N	N	N	P	P	P	P	P	P	N	P	P	P	P	P	P	P	P	P	P
Wilson City	P	N	N	N	N	P	P	P	P	P	P	N	P	P	P	P	P	P	P	P	P	P
Wyatt	P	N	N	N	N	P	P	P	P	P	P	N	P	P	P	P	P	P	P	P	P	P

P Goal valid and partially completed
N The action was not fully completed before the update, and was included in the update in a revised form
P Action valid and partially completed, included in the update without revisions

Goal 1. Eliminate loss of life, minimize injuries, and reduce property damage caused by *tornadoes and severe thunderstorms.*

- Action 1.1: Adopt building codes that require new structures built after July 1, 2006 to have BOCA-approved roof rafter to plate fastening to withstand an F-1 tornado.
- Action 1.2: Adopt policies for new mobile home parks and recreational facilities that provide shelters within 100 yards of any resident or participant by July 1, 2006.
- Action 1.3: Host workshops annually for business owners and public facilities administrators to develop plans for the occupant should severe storms threaten.
- Action 1.4: Host meetings with manufactured home park operators and recreational facilities administrators to develop a plan to provide shelters for their residents and participants.

Goal 2. Minimize property damage due to *flooding* of streams.

- Action 2.1: Develop design criteria for drainage structures on roads within the county’s jurisdiction to be effective July 1, 2005.
- Action 2.2: Implement erosion control measures on all county highway projects constructed after July 1, 2006.
- Action 2.3: Develop a floodplain management program, including workshops, for county highway departments to be implemented on July 1, 2006, adopting AASHTO design criteria or cross road drainage structures.
- Action 2.4: Require site plan with foundation elevations submitted and approved before issuing building permits.

Goal 3. Minimize injuries and property damage due to *seismic events*.

- Action 3.1: Adopt BOCA seismic design building codes for future construction of critical facilities effective July 1, 2006. Document site plan and seismic building design approval for construction of critical facilities.
- Action 3.2: Designate an Emergency Operations center and conduct an annual coordination exercise with all county officials effective July 1, 2006.
- Action 3.3: Co-sponsor with appropriate school boards an earthquake public awareness program for local public schools. Print earthquake preparedness brochures and distribute to libraries, city halls, and Mississippi County Courthouse for public education.

Goal 4. Minimize the impact to natural and human resources caused by *drought and/or heat wave*.

- Action 4.1: Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission to be implemented by July 1, 2006
- Action 4.2: Meet with public electric utility companies to develop “best practices” for power conservation during periods of drought and heat waves to implemented July 1, 2006.
- Action 4.3: Sponsor annual safety meetings for county employees to address heat stress and conservation strategies beginning July 1, 2006.

Goal 5. Maintain public services to minimize the risk and reduce property damage caused by *severe winter weather*.

- Action 5.1: Create an emergency snow route map for the county road system to be distributed by July 1, 2006.
- Action 5.2: Meet annually with critical facilities administrators to develop severe winter weather strategies beginning July 1, 2006.
- Action 5.3: Educate the public and private utility end user on preventive measures to reduce the risk to public and private property by July 1, 2006.
 - Distribute brochures on proper tree trimming to reduce risk of property damage during ice storms.
 - Meet with health care officials and local veterinarians to develop “best practices” brochures on techniques to protect human life and domesticated animals during periods of severe cold weather and power outages.

The table below illustrates the results of the 2005 Plan strategy.

Goals and Actions in the 2005 Plan that led to Mitigation Plans or Policy Changes																							
Jurisdiction	Goal 1	Act 1.1	Act 1.2	Act 1.3	Act 1.4	Goal 2	Act 2.1	Act 2.2	Act 2.3	Act 2.4	Goal 3	Act 3.1	Act 3.2	Act 3.3	Goal 4	Act 4.1	Act 4.2	Act 4.3	Goal 5	Act 5.1	Act 5.2	Act 5.3	
Mississippi County	PC			MP	MP	MP	MP	MP			MP	MP	MP						MP				
Anniston									PC	PC								MP					
Bertrand	PC				PC	MP		MP										MP					
Charleston					PC			PC	PC	PC								MP					
East Prairie																							
Pinhook					PC	MP		MP	PC	PC	MP							PC		PC			
Wilson City	PC	PC		PC	MP			MP										PC		PC	PC		
Wyatt																							

MP Goals or Actions that lead to Mitigation Plans for County or Jurisdictions
PC Goals or Actions that lead to Policy Changes for County or Jurisdictions

Further results of the communities’ mitigation activities are shown in the table below. It shows the mitigation activities each jurisdiction has initiated as a result of natural weather occurrences. Although not all activities were specifically enumerated in the previously approved plan, all further the goals of hazard mitigation.

Jurisdictions	Anniston	Bertrand	Charleston	East Prairie	Pinhook	Wilson City	Wyatt	Mississippi co.
Grants-Fire Stations, Community Centers								
Tree Trimming			X	X		X	X	X
Drainage	X		X	X			X	X
Generators	X	X	X	X	X		X	X
Warm Spaces	X	X	X	X	X		X	X
Special Training for Emergencies Workers		X	X	X			X	
Public Meetings	X	X	X	X		X		
Update Emergency Operations Plan			X	X				X
Co-ordinate County Resources			X					X
New Building Codes				X				
Stormwater Pumps								
Weather Sirens								

Updated February 2010

The planning committee and workshop participants reviewed the goals and actions of the previously approved Hazard Mitigation Plan. They determined not to eliminate any of the goals or actions, but rather to restate some of the goals and actions. In addition, several new actions were proposed, which were related to actions in the previously approved plan. Failure to complete actions from 2005 Plan does not mean that those actions were invalid. Due to the cost, time constraints, and varying intensities and severity of natural weather patterns, completed mitigation will continue to be an ongoing process.

The committee endorsed the list below for the 2010 Plan Update. The action items that are new to the Update are indicated in parentheses. This is the complete list of actions considered by the planning committee and workshop participants.

Goal 1. Eliminate loss of life, minimize injuries and reduce property damage caused by *tornadoes and severe thunderstorms.*

- Action 1.1: Encourage construction codes on new buildings to withstand high winds and possible F1 tornadoes. (Restated from 2005 plan)
- Action 1.2: Encourage construction of tornado safe rooms. (new to the Update)
- Action 1.3: Encourage shelters from hazardous weather for mobile home parks and recreational facilities. (Restated from 2005 plan)
- Action 1.4 Host workshops annually for business owners and public facilities administrators to develop plans for the occupants should severe storms threaten. (Restated from 2005 Plan)
- Action 1.5: Host meetings to help businesses and public facilities administrators develop plans for the protection of the occupants during severe weather conditions.(Restated from 2005 plan)

•
Goal 2. Minimize property damage due to *flooding.*

- Action 2.1: Develop design criteria for drainage structures on roads within the counties jurisdiction. (Restated from 2005 plan)
- Action 2.2: Implement erosion control measures on all county highway projects and develop Pipe Culvert Installation Workshops for county highway departments (combing two 2005 plan actions).
- Action 2.3: Continue compliance and implementation of NFIP requirements to reduce flood risks within flood hazard areas. (new to Update)
- Action 2.4: Adopt AASHTO design criteria for cross road drainage structures on local roads.(Restated from 2005 Plan)
- Action 2.5: Require site plan with foundation elevations submitted and approved before issuing building permits. (Restated from 2005 Plan)

•
Goal 3. Minimize injuries and property damage due to *seismic events.*

- Action 3.1: Consider BOCA seismic design building codes for future construction of critical facilities.(Restated from 2005 Plan)
- Action 3.2: Designate an Emergency Operations Center and conduct an annual coordination exercise with all county officials. County Commission and Emergency Operations Office meet to set time and agenda for annual coordination exercise. (Restated form 2005 plan)

- Action 3.3: Co-sponsor with appropriate school boards an earthquake public awareness program for local public schools. Print earthquake preparedness brochures and distribute to libraries, city halls and county courthouse for public education.(Restated from 2005 Plan)
- Action 3.4: Document site plan and seismic building design approvals for construction of critical facilities. (New to 2010 Plan)

Goal 4. Minimize the impact to natural and human resources caused by *drought and/or heat wave*.

- Action 4.1: Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission.(Restated from 2005 Plan)
- Action 4.2: Meet with public electric utility companies to develop “best practices” for power conservation during periods of drought and heat waves.(Restated from 2005 Plan)
- Action 4.3: Sponsor annual safety meetings for county employees to address heat stress. Invite a Red Cross trainer to county safety meetings to discuss preventive measure for heat stress. (Restated from 2005 plan)
-

Goal 5. Maintain public services to minimize the risk and reduce property damage caused by *severe winter weather*.

- Action 5.1: Create an emergency snow route map for the county road system.(Restated from 2005 Plan)
- Action 5.2: Meet annually with critical facilities administrators to develop severe winter weather strategies.(Restated from 2005 Plan)
- Action 5.3: Educate the public utility end user on preventive measures to reduce the risk to public and private property. (Restated from 2005 plan)
 - Distribute brochures on proper tree trimming to reduce the risk of property damage during ice storms.
 - Meet with health care officials and local veterinarians to develop “best practices” brochures on techniques to protect human life and domesticated animals during periods of severe cold weather and power outages.
- Action 5.4: Meet annually with state and local officials to coordinate snow removal activities in September of each year. (New to Update)

The planning committee/workshop participants then prioritized the updated goals and actions. Each action was reviewed using the STAPLEE criteria. The STAPLEE methodology involves evaluation of each action’s social, technical, administrative, political, legal, economic, and environmental considerations. The STAPLEE analysis uses the following criteria.

Social -- The public must support the overall implementation strategy and specific

mitigation actions. The following questions were considered:

- Will the proposed action adversely affect a segment of the population?
- Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?
- Is the action compatible with present and future community values?
- Will the actions affect adversely cultural values or resources?

Technical - - Determine if the proposed action is technically feasible, will help to reduce loss in the long term, and has minimal secondary impacts. The following questions were considered:

- How effective is the action in avoiding or reducing future losses?
- Will it create more problems than it solves?
- Does it solve the problem or only the symptom?

Administrative - - Examine the anticipated staffing, funding, and maintenance required for the action. The following questions were considered:

- Does the jurisdiction have the capability to implement the action?
- Can the community provide the necessary maintenance?
- Can it accomplished in a timely manner?

Political - - Proposed mitigations objectives sometimes fail because of lack of political acceptance. The following questions were considered:

- Is there political support to implement and maintain this action?
- Have political leaders participated in the planning process?
- Is local leadership available?
- Who are the stakeholders in the proposed action?
- Is there enough public support to ensure the success of the action?

Legal - - Legal authority must be granted to implement the action. The following questions were considered:

- Does the local jurisdiction have the legal authority to implement the action?
- Is there a technical, scientific, or legal basis for the mitigation action?
- Are the proper law, ordinances, and resolutions in place to implement the action?
- Are there any potential legal consequences?

Economic - - Budget constraints should not impede action implementation. The following questions were considered:

Are funds available to implement the actions?
 What benefits will the action provide?
 Is the cost reasonable for the size of the problems?
 What outside sources of funding is available?

Environmental - - Mitigation actions must not negatively impact the environment.

The following questions were considered:

How will this action affect land, water, and endangered species?
 Will this action comply with local, state, and federal environmental regulations?
 Is the action consistent with community environmental goals?

A critical component of selecting mitigation goals actions to reduce the community's risk of hazards is ensuring the criteria are consistent with and complementary to other community programs.

The following table provides a prioritization of the proposed mitigation actions. Each action was reviewed according to STAPLEE criteria. An "X" under the appropriated column indicates the action would play a factor in mitigation actions, and no "X" indicates it does not.

Mississippi County Proposed 2010 Mitigation Action Evaluation:							
Criteria	S	T	A	P	L	E	E
Goal 1. Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms							
Action 1.1: Encourage construction codes on new building to withstand high winds and a possible F1 tornados	X	X	X	X	X	X	X
Action 1.2: Encourage construction of tornado safe rooms	X	X	X	X	X	X	X
Action 1.3: Encourage hazardous weather shelters for mobile homes, parks and recreational facilities	X	X	X	X	X	X	X
Action 1.4: Host workshops annually for business owners and public facilities administrators	X	X		X			
Action 1.5: Host meetings to help businesses and public facilities administrators develop plans for severe weather	X	X		X			
Goal 2. Minimize property damage due to flooding.							
Action 2.1: Develop design criteria for drainage structures on roads within the county's jurisdiction.	X	X	X			X	X
Action 2.2: Implement erosion control measures on all county highway projects and develop Pipe Culvert Installation Workshops for county highway departments	X	X				X	X
Action 2.3: Continue compliance and implementation of the requirements for NFIP and reduce the flood risks within hazard area.	X	X	X	X	X	X	X
Action 2.4: Adopt AASHTO design criteria for cross road drainage structures on local roads	X	X	X	X	X	X	X

Action 2.5: Require site plan with foundations elevations submitted and approved before issuing building permits.	X	X	X	X	X	X	X
Goal 3. Minimize injuries and property damage due to seismic events.							
Action 3.1: Consider BOCA seismic design building codes for future construction of critical facilities	X	X	X	X	X	X	X
Action 3.2: Designate an Emergency Operations Center and conduct annual coordination exercises with all county officials. County Commission and Emergency Operations Officer meet to set time and agenda for annual coordination exercise.	X		X	X			
Action 3.3: Co-sponsor with appropriate school boards an earthquake public awareness program for local schools. Print earthquake preparedness brochures and distribute to libraries, city halls and county courthouse for public education.	X		X	X			
Action 3.4: Document site plan and seismic building design approvals for construction of critical facilities.	X	X	X	X	X	X	X
Goal 4. Minimize the impact to natural and human resources caused by drought and/or heat wave.							
Action 4.1: Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission.	X	X	X	X			X
Action 4.2: Meet with public electric utility companies to develop “best practices” for power conservation.	X		X	X			
Action 4.3: Sponsor annual safety meeting for county employees to address heat stress. Invite a Red Cross trainer to county safety meeting to discuss preventive measures for heat stress.	X	X	X	X			
Goal 5. Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.							
Action 5.1: Create an emergency snow route for county roads.	X	X	X	X		X	
Action 5.2: Meet annually with critical facilities administrators to develop severe winter weather strategies.	X	X	X	X	X	X	
Action 5.3: Educate the public utility end user on preventive measures to reduce the risk to property.	X	X	X	X	X	X	X
Action 5.4: Meet annually with state and local officials to coordinate snow removal activities in September.	X	X	X	X	X	X	X

This plan has identified the natural hazards that pose the greatest risk to the citizens of Mississippi County and the cities, towns and villages, school districts and colleges within its boundaries. The Mississippi County Commission promotes and supports development of local hazard mitigation plans, projects, and activities by acting as the lead agency in the goals established in this document. The goals and actions place an emphasis on prevention and education. Mitigation measure have been identified that will yield the highest return to the investment of the tax-paying community

Further Analysis of Proposed Mitigation Projects

The planning committee applied the STAPLEE analysis to the list of possible goals and actions beginning on page 164. The process allowed the individual jurisdictions

participating in the Plan Update to choose the actions on which to concentrate efforts. Those choices are listed by jurisdiction on the following pages. The listing includes a more in-depth analysis of those actions chosen from the list beginning on page 164. These actions are considered to be important community mitigation actions. Mitigation plan activities may be considered for funding through various local, state, and federal programs. To insure implementation of mitigation activities, each action item in each jurisdiction will be assigned timelines and responsible organizations. The analysis of the actions on the following pages will involve these terms, which are defined as follows:

- Goal: A state of affairs that a plan is intended to achieve.
- Action: The action identified in the preceding pages for the plan update.
- Project Status: Some actions from the 2005 Plan were carried over into the 2010 Update. An action that is designated “new” is one that was not in the previously approved 2005 Plan. A designation of “ongoing” means that the action was in the 2005 Plan and is in the 2010 Update, and activity on the proposed action ongoing. A designation of “not yet implemented” is an action from the 2005 Plan upon which no activity has been initiated.
- Progress: How much has been achieved towards completion of the action.
- Discussion: Elements comprising the action item.
- Responsible Agency: The organizations that will gather resources, locate applicable funding, or oversee project activity, implementation, monitoring and evaluations.
- Economic Analysis: The feasibility of a project arrived at by quantifying its cost versus the benefit of achieving the strategy.
- Estimated Cost: Estimated cost of project, if known.
- Source of Funds: Possible funding sources such as local money, grants, or loans.
- STAPLEE: Evaluation of action item based on elements of STAPLEE. A letter not listed indicates that a particular element of STAPLEE is not met.
- Priority Rank: High, Medium, Low, based on the STAPLEE analysis defined as follows:

Low-Minor damage to less than 5% of the jurisdiction anticipated
Medium-Partial damage to 5-10% of the jurisdiction anticipated
High-Destructive damage to more than 10% of the jurisdiction anticipated

- Timeline: Action items can be characterized as long or short term. Short term is two years or less; long term more than two years.
- Type of Strategy: Prevention, Property Protection, Natural Resource Protection, Structural Projects, Emergency Services, Public Information and Awareness

- **Hazard Addressed:** Tornadoes, Severe Thunderstorms, Flooding, Seismic Events, Drought and Extreme Heat, Severe Winter Weather
- **Evaluation:** The determining event that provides validation that the objective is met.

Mitigation Actions for Mississippi County

Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms.

Action 1.1 thru 1.3: Seek grant funds for construction of safe rooms, flood buyouts, elevation projects, etc.	
Project Status	New
Progress	N/A
Discussion	<ul style="list-style-type: none"> • Encourage construction codes on new buildings to withstand high winds and possible F1 tornado • Encourage construction of tornado safe rooms • Host workshops annually for business owners and public facilities administrators
Responsible Agency	Mississippi County Commission, School Administrators
Economic Analysis	High cost will justify outcome/save lives
Estimated Cost	Unknown
Source of Funds	Local Match, Private, State and Government Grants
STAPLEE	STAPL-En
Priority Rank	Medium to High
Timeline	1-5 years
Type of Strategy	Prevent, Life and Property Protection
Hazards Addressed	Tornadoes and Severe Thunderstorms
Evaluation	Funding approved and construction completed

Goal 2: Minimize property damage due to flooding

Action 2.5: Revise building permits to include site plans and elevations with submittal approval	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Develop design criteria for drainage structures on roads within the county's jurisdiction • Implement erosion control measures on all county highway projects • Continue compliance and implementation of the requirements of NFIP and reduce the flood risk within hazard area

Responsible Agency	Mississippi County Commission
Economic Analysis	Administrative cost only, will save money for insurers/owners
Estimated Cost	Unknown
Source of Funds	Local
STAPLEE	STA-EE
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Prevention, Life and Property
Hazards Addressed	Flooding
Evaluation	Implementation of new permits

Goal 3: Minimize injuries and property damage due to seismic events.

Action 3.4: Revise policies to include seismic designs on future construction of critical facilities.	
Project Status	On-going
Progress	New construction in county now adhere to building codes for seismic events
Discussions	<ul style="list-style-type: none"> • Consider BOCA seismic design building codes for future construction • Designate an Emergency Operations Center and conduct annual coordination exercises • Co-sponsor with appropriated school boards and earthquake public awareness program for local schools
Responsible Agency	Mississippi County Commission
Economic Analysis	Cost of construction will save lives
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-LEE
Priority Rank	Medium-High
Timeline	1-5 years
Type of Strategy	Property Protection, Structural Projects
Hazards Addressed	Earthquakes
Evaluation	Completed policies

Goal 4: Minimize the impact to natural and human resources caused by drought and/or heat wave.

Action 4.3: Schedule annual meeting with city mayors to discuss power and water conservation practices.	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission

	<ul style="list-style-type: none"> • Meet with public electric utility companies to develop “best practices” for power conservation • Sponsor annual safety meeting for county employees
Responsible Agency	Mississippi County Commissioners
Economic Analysis	Cost increases effectiveness of practices
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-EE
Priority Rank	Medium
Timeline	1-3 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Drought/Heat Wave
Evaluation	Minutes of meeting

Goal 5: Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.

Action 5.2: Schedule meetings with county highway foreman, city street directors, and state highway engineer to discuss snow removal, route closures, and general safety procedures.	
Project Status	On-going
Progress	County and local officials participate more readily in mutual agreements
Discussions	<ul style="list-style-type: none"> • Create an emergency snow route for county roads • Meet annually with critical facilities administrators to develop severe winter weather strategies • Educate the public utility end user on preventive measures to reduce the risk to property
Responsible Agency	Mississippi County Commission
Economic Analysis	Cost justified because of decrease of economic loss
Estimated Cost	\$200.00
Source of Funds	Local
STAPLEE	STAP-E
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Severe Winter Weather
Evaluation	Minutes of meetings

Mitigation Actions for City of Anniston

Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms.

Action 1.1thru 1.3: Seek grant funds for construction of safe rooms, flood buyouts, elevation projects, etc.(restated from the list beginning on page 161)	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Encourage construction codes on new buildings to withstand high winds and possible F1 tornado • Encourage construction of tornado safe rooms • Host workshops annually for business owners and public facilities administrators
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost will justify outcome/save lives
Estimated Cost	Unknown
Source of Funds	Local Match, Private, State and Government Grants
STAPLEE	STAPL-En
Priority Rank	Medium to High
Timeline	1-5 years
Type of Strategy	Prevent, Life and Property Protection
Hazards Addressed	Tornadoes and Severe Thunderstorms
Evaluation	Funding approved and construction completed

Goal 2: Minimize property damage due to flooding

Action 2.3 thru 2.5: Revise building permits to include site plans and elevations with submittal approval	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Develop design criteria for drainage structures on roads within the county's jurisdiction • Implement erosion control measures on all county highway projects • Continue compliance and implementation of the requirements of NFIP and reduce the flood risk within hazard area
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost will save money for insurers/owners
Estimated Cost	Unknown
Source of Funds	Local
STAPLEE	STA-EE
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Prevention, Life and Property
Hazards Addressed	Flooding
Evaluation	Implementation of new permits

Goal 3: Minimize injuries and property damage due to seismic events.

Action 3.1thru 3.3: Revise policies to include seismic designs on future construction of critical facilities.	
Project Status	On-going
Progress	New construction in county now adhere to building codes for seismic events
Discussions	<ul style="list-style-type: none"> • Consider BOCA seismic design building codes for future construction • Designate an Emergency Operations Center and conduct annual coordination exercises • Co-sponsor with appropriated school boards and earthquake public awareness program for local schools
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost of construction will save lives
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-LEE
Priority Rank	Medium-High
Timeline	1-5 years
Type of Strategy	Property Protection, Structural Projects
Hazards Addressed	Earthquakes
Evaluation	Completed policies

Goal 4: Minimize the impact to natural and human resources caused by drought and/or heat wave.

Action 4.1thru 4.3: Participate in annual meeting with city mayors to discuss power and water conservation practices.	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission • Meet with public electric utility companies to develop “best practices” for power conservation • Sponsor annual safety meeting for county employees
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost increases effectiveness of practices
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-EE
Priority Rank	Medium
Timeline	1-3 years

Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Drought/Heat Wave
Evaluation	Minutes of meeting

Goal 5: Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.

Action 5.1thru 5.4: Schedule meetings with county highway foreman, city street directors, and state highway engineer to discuss snow removal, route closures, and general safety procedures.	
Project Status	On-going
Progress	County and local officials participate more readily in mutual agreements
Discussions	<ul style="list-style-type: none"> • Create an emergency snow route for county roads • Meet annually with critical facilities administrators to develop severe winter weather strategies • Educate the public utility end user on preventive measures
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost justified because of decrease of economic loss
Estimated Cost	\$200.00
Source of Funds	Local
STAPLEE	STAP-E
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Severe Winter Weather
Evaluation	Minutes of meetings

Mitigation Actions for the City of Bertrand

Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms.

Action 1.1thru 1.3: Seek grant funds for construction of safe rooms, flood buyouts, elevation projects, etc.(restated from list beginning on page 161)	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Encourage construction codes on new buildings to withstand high winds and possible F1 tornado • Encourage construction of tornado safe rooms • Host workshops annually for business owners and public facilities administrators
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost will justify outcome/save lives

Estimated Cost	Unknown
Source of Funds	Local Match, Private, State and Government Grants
STAPLEE	STAPL-En
Priority Rank	Medium to High
Timeline	1-5 years
Type of Strategy	Prevent, Life and Property Protection
Hazards Addressed	Tornadoes and Severe Thunderstorms
Evaluation	Funding approved and construction completed

Goal 2: Minimize property damage due to flooding

Action 2.3 thru 2.5: Revise building permits to include site plans and elevations with submittal approval	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Develop design criteria for drainage structures on roads within the county's jurisdiction • Implement erosion control measures on all highway projects • Continue compliance and implementation of the requirements of NFIP and reduce the flood risk within hazard area
Responsible Agency	Mayor, City Council, ED
Economic Analysis	Cost will save money for insurers/owners
Estimated Cost	Unknown
Source of Funds	Local
STAPLEE	STA-EE
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Prevention, Life and Property
Hazards Addressed	Flooding
Evaluation	Implementation of new permits

Goal 3: Minimize injuries and property damage due to seismic events.

Action 3.1 thru 3.3: Revise policies to include seismic designs on future construction of critical facilities.	
Project Status	On-going
Progress	New construction in county now adhere to building codes for seismic events
Discussions	<ul style="list-style-type: none"> • Consider BOCA seismic design building codes for future construction • Designate an Emergency Operations Center and conduct annual coordination exercises • Co-sponsor with appropriated school boards and

	earthquake public awareness program for local schools
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost of construction will save lives
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-LEE
Priority Rank	Medium-High
Timeline	1-5 years
Type of Strategy	Property Protection, Structural Projects
Hazards Addressed	Earthquakes
Evaluation	Completed policies

Goal 4: Minimize the impact to natural and human resources caused by drought and/or heat wave.

Action 4.1thru 4.3: Participate in annual meeting with city mayors to discuss power and water conservation practices.	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission • Meet with public electric utility companies to develop “best practices” for power conservation • Sponsor annual safety meeting for county employees
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost increases effectiveness of practices
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-EE
Priority Rank	Medium
Timeline	1-3 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Drought/Heat Wave
Evaluation	Minutes of meeting

Goal 5: Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.

Action 5.1: Schedule meetings with county highway foreman, city street directors, and state highway engineer to discuss snow removal, route closures, and general safety procedures.	
Project Status	On-going
Progress	County and local officials participate more readily in mutual agreements

Discussions	<ul style="list-style-type: none"> • Create an emergency snow route for county roads • Meet annually with critical facilities administrators to develop severe winter weather strategies • Educate the public utility end user on preventive measures to reduce the risk to property
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost justified because of decrease of economic loss
Estimated Cost	\$200.00
Source of Funds	Local
STAPLEE	STAP-E
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Severe Winter Weather
Evaluation	Minutes of meetings

Mitigation Actions for the City of Charleston

Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms.

Action 1.1thru 1.3: Seek grant funds for construction of safe rooms, flood buyouts, elevation projects, etc. (restated from list beginning on page 161)	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Encourage construction codes on new buildings to withstand high winds and possible F1 tornado • Encourage construction of tornado safe rooms • Host workshops annually for business owners and public facilities administrators
Responsible Agency	Mayor, City Administrator, EMD
Economic Analysis	Cost will justify outcome/save lives
Estimated Cost	Unknown
Source of Funds	Local Match, Private, State and Government Grants
STAPLEE	STAPL-En
Priority Rank	Medium to High
Timeline	1-5 years
Type of Strategy	Prevent, Life and Property Protection
Hazards Addressed	Tornadoes and Severe Thunderstorms
Evaluation	Funding approved and construction completed

Goal 2: Minimize property damage due to flooding

Action 2.3 thru 2.5: Revise building permits to include site plans and elevations with submittal approval	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Develop design criteria for drainage structures on roads within the county's jurisdiction • Implement erosion control measures on all county highway projects • Continue compliance and implementation of the requirements of NFIP and reduce the flood risk within hazard area
Responsible Agency	Mayor, City Administrator, EMD
Economic Analysis	Cost will save money for insurers/owners
Estimated Cost	Unknown
Source of Funds	Local
STAPLEE	STA-EE
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Prevention, Life and Property
Hazards Addressed	Flooding
Evaluation	Implementation of new permits

Goal 3: Minimize injuries and property damage due to seismic events.

Action 3.1 thru 3.3: Revise policies to include seismic designs on future construction of critical facilities.	
Project Status	On-going
Progress	New construction in county now adhere to building codes for seismic events
Discussions	<ul style="list-style-type: none"> • Consider BOCA seismic design building codes for future construction • Designate an Emergency Operations Center and conduct annual coordination exercises • Co-sponsor with appropriated school boards and earthquake public awareness program for local schools
Responsible Agency	Mayor, City Administrator, EMD
Economic Analysis	Cost of construction will save lives
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-LEE
Priority Rank	Medium-High
Timeline	1-5 years
Type of Strategy	Property Protection, Structural Projects

Hazards Addressed	Earthquakes
Evaluation	Completed policies

Goal 4: Minimize the impact to natural and human resources caused by drought and/or heat wave.

Action 4.1thru 4.3: Participate in annual meeting with city mayors to discuss power and water conservation practices.	
Project Status	New
Progress	N/A
Discussion	<ul style="list-style-type: none"> • Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission • Meet with public electric utility companies to develop “best practices” for power conservation • Sponsor annual safety meeting for county employees
Responsible Agency	Mayor, City Administrator, EMD
Economic Analysis	Cost increases effectiveness of practices
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-EE
Priority Rank	Medium
Timeline	1-3 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Drought/Heat Wave
Evaluation	Minutes of meeting

Goal 5: Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.

Action 5.1: Schedule meetings with county highway foreman, city street directors, and state highway engineer to discuss snow removal, route closures, and general safety procedures.	
Project Status	On-going
Progress	County and local officials participate more readily in mutual agreements
Discussions	<ul style="list-style-type: none"> • Create an emergency snow route for county roads • Meet annually with critical facilities administrators to develop severe winter weather strategies • Educate the public utility end user on preventive measures to reduce the risk to property
Responsible Agency	Mayor, City Administrator, EMD
Economic Analysis	Cost justified because of decrease of economic loss
Estimated Cost	\$200.00
Source of Funds	Local
STAPLEE	STAP-E

Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Severe Winter Weather
Evaluation	Minutes of meetings

Mitigation Actions for East Prairie

Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms.

Action 1.1 thru 1.3: Seek grant funds for construction of safe rooms, flood buyouts, elevation projects, etc.(restated from the list beginning on page 161)	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Encourage construction codes on new buildings to withstand high winds and possible F1 tornado • Encourage construction of tornado safe rooms • Host workshops annually for business owners and public facilities administrators
Responsible Agency	Mayor, City Administrator, EMD
Economic Analysis	Cost will justify outcome/save lives
Estimated Cost	Unknown
Source of Funds	Local Match, Private, State and Government Grants
STAPLEE	STAPL-En
Priority Rank	Medium to High
Timeline	1-5 years
Type of Strategy	Prevent, Life and Property Protection
Hazards Addressed	Tornadoes and Severe Thunderstorms
Evaluation	Funding approved and construction completed

Goal 2: Minimize property damage due to flooding

Action 2.3 thru 2.5: Revise building permits to include site plans and elevations with submittal approval	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Develop design criteria for drainage structures on roads within the county's jurisdiction • Implement erosion control measures on all county highway projects • Continue compliance and implementation of the

	requirements of NFIP and reduce the flood risk within hazard area
Responsible Agency	Mayor, City Administrator, EMD
Economic Analysis	Cost will save money for insurers/owners
Estimated Cost	Unknown
Source of Funds	Local
STAPLEE	STA-EE
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Prevention, Life and Property
Hazards Addressed	Flooding
Evaluation	Implementation of new permits

Goal 3: Minimize injuries and property damage due to seismic events.

Action 3.1thru 3.3: Revise policies to include seismic designs on future construction of critical facilities.	
Project Status	On-going
Progress	New construction in county now adhere to building codes for seismic events
Discussions	<ul style="list-style-type: none"> • Consider BOCA seismic design building codes for future construction • Designate an Emergency Operations Center and conduct annual coordination exercises • Co-sponsor with appropriated school boards and earthquake public awareness program for local schools
Responsible Agency	Mayor, City Administrator, EMD
Economic Analysis	Cost of construction will save lives
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-LEE
Priority Rank	Medium-High
Timeline	1-5 years
Type of Strategy	Property Protection, Structural Projects
Hazards Addressed	Earthquakes
Evaluation	Completed policies

Goal 4: Minimize the impact to natural and human resources caused by drought and/or heat wave.

Action 4.1thru 4.3: Participate in annual meeting with city mayors to discuss power and water conservation practices.	
Project Status	New
Progress	N/A

Discussions	<ul style="list-style-type: none"> • Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission • Meet with public electric utility companies to develop “best practices” for power conservation • Sponsor annual safety meeting for county employees
Responsible Agency	Mayor, City Administrator, EMD
Economic Analysis	Cost increases effectiveness of practices
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-EE
Priority Rank	Medium
Timeline	1-3 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Drought/Heat Wave
Evaluation	Minutes of meeting

Goal 5: Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.

Action 5.1: Schedule meetings with county highway foreman, city street directors, and state highway engineer to discuss snow removal, route closures, and general safety procedures.	
Project Status	On-going
Progress	County and local officials participate more readily in mutual agreements
Discussion	<ul style="list-style-type: none"> • Create an emergency snow route for county roads • Meet annually with critical facilities administrators to develop severe winter weather strategies • Educate the public utility end user on preventive measures to reduce the risk to property
Responsible Agency	Mayor, City Administrator, EMD
Economic Analysis	Cost justified because of decrease of economic loss
Estimated Cost	\$200.00
Source of Funds	Local
STAPLEE	STAP-E
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Severe Winter Weather
Evaluation	Minutes of meetings

Mitigation Actions for Village of Pinhook
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Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms.

Action 1.1 thru 1.3: Seek grant funds for construction of safe rooms, flood buyouts, elevation projects, etc. (restated from list beginning on page 161)	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Encourage construction codes on new buildings to withstand high winds and possible F1 tornado • Encourage construction of tornado safe rooms • Host workshops annually for business owners and public facilities administrators
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost will justify outcome/save lives
Estimated Cost	Unknown
Source of Funds	Local Match, Private, State and Government Grants
STAPLEE	STAPL-En
Priority Rank	Medium to High
Timeline	1-5 years
Type of Strategy	Prevent, Life and Property Protection
Hazards Addressed	Tornadoes and Severe Thunderstorms
Evaluation	Funding approved and construction completed

Goal 2: Minimize property damage due to flooding

Action 2.3 thru 2.5: Revise building permits to include site plans and elevations with submittal approval	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Develop design criteria for drainage structures on roads within the county's jurisdiction • Implement erosion control measures on all county highway projects • Continue compliance and implementation of the requirements of NFIP and reduce the flood risk within hazard area
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost will save money for insurers/owners
Estimated Cost	Unknown
Source of Funds	Local

STAPLEE	STA-EE
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Prevention, Life and Property
Hazards Addressed	Flooding
Evaluation	Implementation of new permits

Goal 3: Minimize injuries and property damage due to seismic events.

Action 3.1thru 3.3: Revise policies to include seismic designs on future construction of critical facilities.	
Project Status	On-going
Progress	New construction in county now adhere to building codes for seismic events
Discussions	<ul style="list-style-type: none"> • Consider BOCA seismic design building codes for future construction • Designate an Emergency Operations Center and conduct annual coordination exercises • Co-sponsor with appropriated school boards and earthquake public awareness program for local schools
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost of construction will save lives
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-LEE
Priority Rank	Medium-High
Timeline	1-5 years
Type of Strategy	Property Protection, Structural Projects
Hazards Addressed	Earthquakes
Evaluation	Completed policies

Goal 4: Minimize the impact to natural and human resources caused by drought and/or heat wave.

Action 4.1thru 4.3: Participated in annual meeting with city mayors to discuss power and water conservation practices.	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission • Meet with public electric utility companies to develop “best practices” for power conservation • Sponsor annual safety meeting for county employees
Responsible Agency	Mayor, City Council, EMD

Economic Analysis	Cost increases effectiveness of practices
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-EE
Priority Rank	Medium
Timeline	1-3 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Drought/Heat Wave
Evaluation	Minutes of meeting

Goal 5: Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.

Action 5.1: Schedule meetings with county highway foreman, city street directors, and state highway engineer to discuss snow removal, route closures, and general safety procedures.	
Project Status	On-going
Progress	County and local officials participate more readily in mutual agreements
Discussions	<ul style="list-style-type: none"> • Create an emergency snow route for county roads • Meet annually with critical facilities administrators to develop severe winter weather strategies • Educate the public utility end user on preventive measures to reduce the risk to property
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost justified because of decrease of economic loss
Estimated Cost	\$200.00
Source of Funds	Local
STAPLEE	STAP-E
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Severe Winter Weather
Evaluation	Minutes of meetings

Mitigation Actions for Wilson City

Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms.

Action 1.1thru 1.3: Seek grant funds for construction of safe rooms, flood buyouts, elevation projects, etc.(restated from list beginning on page 161)

Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Encourage construction codes on new buildings to withstand high winds and possible F1 tornado • Encourage construction of tornado safe rooms • Host workshops annually for business owners and public facilities administrators
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost will justify outcome/save lives
Estimated Cost	Unknown
Source of Funds	Local Match, Private, State and Government Grants
STAPLEE	STAPL-En
Priority Rank	Medium to High
Timeline	1-5 years
Type of Strategy	Prevent, Life and Property Protection
Hazards Addressed	Tornadoes and Severe Thunderstorms
Evaluation	Funding approved and construction completed

Goal 2: Minimize property damage due to flooding

Action 2.3 thru 2.5: Revise building permits to include site plans and elevations with submittal approval	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Develop design criteria for drainage structures on roads within the county's jurisdiction • Implement erosion control measures on all county highway projects • Continue compliance and implementation of the requirements of NFIP and reduce the flood risk within hazard area
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost will save money for insurers/owners
Estimated Cost	Unknown
Source of Funds	Local
STAPLEE	STA-EE
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Prevention, Life and Property
Hazards Addressed	Flooding
Evaluation	Implementation of new permits

Goal 3: Minimize injuries and property damage due to seismic events.

Action 3.1thru 3.3: Revise policies to include seismic designs on future construction of critical facilities.	
Project Status	On-going
Progress	New construction in county now adhere to building codes for seismic events
Discussions	<ul style="list-style-type: none"> • Consider BOCA seismic design building codes for future construction • Designate an Emergency Operations Center and conduct annual coordination exercises • Co-sponsor with appropriated school boards and earthquake public awareness program for local schools
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost of construction will save lives
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-LEE
Priority Rank	Medium-High
Timeline	1-5 years
Type of Strategy	Property Protection, Structural Projects
Hazards Addressed	Earthquakes
Evaluation	Completed policies

Goal 4: Minimize the impact to natural and human resources caused by drought and/or heat wave.

Action 4.1thru 4.3: Participate in annual meeting with city mayors to discuss power and water conservation practices.	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission • Meet with public electric utility companies to develop “best practices” for power conservation • Sponsor annual safety meeting for county employees
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost increases effectiveness of practices
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-EE
Priority Rank	Medium

Timeline	1-3 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Drought/Heat Wave
Evaluation	Minutes of meeting

Goal 5: Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.

Action 5.1: Schedule meetings with county highway foreman, city street directors, and state highway engineer to discuss snow removal, route closures, and general safety procedures.	
Project Status	On-going
Progress	County and local officials participate more readily in mutual agreements
Discussions	<ul style="list-style-type: none"> • Create an emergency snow route for county roads • Meet annually with critical facilities administrators to develop severe winter weather strategies • Educate the public utility end user on preventive measures to reduce the risk to property
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost justified because of decrease of economic loss
Estimated Cost	\$200.00
Source of Funds	Local
STAPLEE	STAP-E
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Severe Winter Weather
Evaluation	Minutes of meetings

Mitigation Actions for City of Wyatt

Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms.

Action 1.1thru 1.3: Seek grant funds for construction of safe rooms, flood buyouts, elevation projects, etc.(restated from list beginning on page 161)	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Encourage construction codes on new buildings to withstand high winds and possible F1 tornado • Encourage construction of tornado safe rooms • Host workshops annually for business owners and public

	facilities administrators
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost will justify outcome/save lives
Estimated Cost	Unknown
Source of Funds	Local Match, Private, State and Government Grants
STAPLEE	STAPL-En
Priority Rank	Medium to High
Timeline	1-5 years
Type of Strategy	Prevent, Life and Property Protection
Hazards Addressed	Tornadoes and Severe Thunderstorms
Evaluation	Funding approved and construction completed

Goal 2: Minimize property damage due to flooding

Action 2.3 thru 2.2: Revise building permits to include site plans and elevations with submittal approval	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Develop design criteria for drainage structures on roads within the county's jurisdiction • Implement erosion control measures on all county highway projects • Continue compliance and implementation of the requirements of NFIP and reduce the flood risk within hazard area
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost will save money for insurers/owners
Estimated Cost	Unknown
Source of Funds	Local
STAPLEE	STA-EE
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Prevention, Life and Property
Hazards Addressed	Flooding
Evaluation	Implementation of new permits

Goal 3: Minimize injuries and property damage due to seismic events.

Action 3.1 thru 3.3: Revise policies to include seismic designs on future construction of critical facilities.	
Project Status	On-going
Progress	New construction in county now adhere to building codes for seismic events
Discussions	<ul style="list-style-type: none"> • Consider BOCA seismic design building codes for future construction

	<ul style="list-style-type: none"> • Designate an Emergency Operations Center and conduct annual coordination exercises • Co-sponsor with appropriated school boards and earthquake public awareness program for local schools
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost of construction will save lives
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-LEE
Priority Rank	Medium-High
Timeline	1-5 years
Type of Strategy	Property Protection, Structural Projects
Hazards Addressed	Earthquakes
Evaluation	Completed policies

Goal 4: Minimize the impact to natural and human resources caused by drought and/or heat wave.

Action 4.1thru 4.3: Participate in annual meeting with city mayors to discuss power and water conservation practices.	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission • Meet with public electric utility companies to develop “best practices” for power conservation • Sponsor annual safety meeting for county employees
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost increases effectiveness of practices
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-EE
Priority Rank	Medium
Timeline	1-3 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Drought/Heat Wave
Evaluation	Minutes of meeting

Goal 5: Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.

Action 5.1: Schedule meetings with county highway foreman, city street directors, and state highway engineer to discuss snow removal, route closures, and general safety procedures.

Project Status	On-going
Progress	County and local officials participate more readily in mutual agreements
Discussions	<ul style="list-style-type: none"> • Create an emergency snow route for county roads • Meet annually with critical facilities administrators to develop severe winter weather strategies • Educate the public utility end user on preventive measures to reduce the risk to property
Responsible Agency	Mayor, City Council, EMD
Economic Analysis	Cost justified because of decrease of economic loss
Estimated Cost	\$200.00
Source of Funds	Local
STAPLEE	STAP-E
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Severe Winter Weather
Evaluation	Minutes of meetings

Mitigation Actions for the Charleston R-I School District

Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms.

Action 1.1thru 1.3: Seek grant funds for construction of safe rooms, flood buyouts, elevation projects, etc.(restated from list beginning on page 161)	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Encourage construction codes on new buildings to withstand high winds and possible F1 tornado • Encourage construction of tornado safe rooms • Host workshops annually for business owners and public facilities administrators
Responsible Agency	Board of Education, School Administrators
Economic Analysis	Cost will justify outcome/save lives
Estimated Cost	Unknown
Source of Funds	Local Match, Private, State and Government Grants
STAPLEE	STAPL-En
Priority Rank	Medium to High
Timeline	1-5 years
Type of Strategy	Prevent, Life and Property Protection
Hazards Addressed	Tornadoes and Severe Thunderstorms

Evaluation	Funding approved and construction completed
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Goal 2: Minimize property damage due to flooding

Action 2.3 thru 2.5: Revise building permits to include site plans and elevations with submittal approval	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Develop design criteria for drainage structures on roads within the county's jurisdiction • Implement erosion control measures on all county highway projects • Continue compliance and implementation of the requirements of NFIP and reduce the flood risk within hazard area
Responsible Agency	Board of Education, School Administrators
Economic Analysis	Cost will save money for insurers/owners
Estimated Cost	Unknown
Source of Funds	Local
STAPLEE	STA-EE
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Prevention, Life and Property
Hazards Addressed	Flooding
Evaluation	Implementation of new permits

Goal 3: Minimize injuries and property damage due to seismic events.

Action 3.1 thru 3.3: Revise policies to include seismic designs on future construction of critical facilities.	
Project Status	On-going
Progress	New construction in county now adhere to building codes for seismic events
Discussions	<ul style="list-style-type: none"> • Consider BOCA seismic design building codes for future construction • Designate an Emergency Operations Center and conduct annual coordination exercises • Co-sponsor with appropriated school boards and earthquake public awareness program for local schools
Responsible Agency	Board of Education, School Administrators
Economic Analysis	Cost of construction will save lives
Estimated Cost	\$500.00
Source of Funds	Local

STAPLEE	ST-LEE
Priority Rank	Medium-High
Timeline	1-5 years
Type of Strategy	Property Protection, Structural Projects
Hazards Addressed	Earthquakes
Evaluation	Completed policies

Goal 4: Minimize the impact to natural and human resources caused by drought and/or heat wave.

Action 4.1thru 4.3: Participate in annual meeting with city mayors to discuss power and water conservation practices.	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission • Meet with public electric utility companies to develop “best practices” for power conservation • Sponsor annual safety meeting for county employees
Responsible Agency	Board of Education, School Administrators
Economic Analysis	Cost increases effectiveness of practices
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-EE
Priority Rank	Medium
Timeline	1-3 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Drought/Heat Wave
Evaluation	Minutes of meeting

Goal 5: Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.

Action 5.2: Schedule meetings with county highway foreman, city street directors, and state highway engineer to discuss snow removal, route closures, and general safety procedures.	
Project Status	On-going
Progress	County and local officials participate more readily in mutual agreements
Discussions	<ul style="list-style-type: none"> • Create an emergency snow route for county roads • Meet annually with critical facilities administrators to develop severe winter weather strategies • Educate the public utility end user on preventive measures to reduce the risk to property
Responsible Agency	Board of Education, School Administrators

Economic Analysis	Cost justified because of decrease of economic loss
Estimated Cost	\$200.00
Source of Funds	Local
STAPLEE	STAP-E
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Severe Winter Weather
Evaluation	Minutes of meetings

Mitigation Actions for the East Prairie R-II School District

Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes and severe thunderstorms.

Action 1.1 thru 1.3: Seek grant funds for construction of safe rooms, flood buyouts, elevation projects, etc.	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Encourage construction codes on new buildings to withstand high winds and possible F1 tornado • Encourage construction of tornado safe rooms • Host workshops annually for business owners and public facilities administrators
Responsible Agency	Board of Education, School Administrators
Economic Analysis	Cost will justify outcome/save lives
Estimated Cost	Unknown
Source of Funds	Local Match, Private, State and Government Grants
STAPLEE	STAPL-En
Priority Rank	Medium to High
Timeline	1-5 years
Type of Strategy	Prevent, Life and Property Protection
Hazards Addressed	Tornadoes and Severe Thunderstorms
Evaluation	Funding approved and construction completed

Goal 2: Minimize property damage due to flooding

Action 2.3 thru 2.5: Revise building permits to include site plans and elevations with submittal approval	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Develop design criteria for drainage structures on roads within the county's jurisdiction • Implement erosion control measures on all county

	highway projects <ul style="list-style-type: none"> • Continue compliance and implementation of the requirements of NFIP and reduce the flood risk within hazard area
Responsible Agency	Board of Education, School Administrators
Economic Analysis	Cost will save money for insurers/owners
Estimated Cost	Unknown
Source of Funds	Local
STAPLEE	STA-EE
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Prevention, Life and Property
Hazards Addressed	Flooding
Evaluation	Implementation of new permits

Goal 3: Minimize injuries and property damage due to seismic events.

Action 3.1thru 3.3: Revise policies to include seismic designs on future construction of critical facilities.	
Project Status	On-going
Progress	New construction in county now adhere to building codes for seismic events
Discussions	<ul style="list-style-type: none"> • Consider BOCA seismic design building codes for future construction • Designate an Emergency Operations Center and conduct annual coordination exercises • Co-sponsor with appropriated school boards and earthquake public awareness program for local schools
Responsible Agency	Board of Education, School Administrators
Economic Analysis	Cost of construction will save lives
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-LEE
Priority Rank	Medium-High
Timeline	1-5 years
Type of Strategy	Property Protection, Structural Projects
Hazards Addressed	Earthquakes
Evaluation	Completed policies

Goal 4: Minimize the impact to natural and human resources caused by drought and/or heat wave.

Action 4.1thru 4.3: Participate in annual meeting with city mayors to discuss power and
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water conservation practices.	
Project Status	New
Progress	N/A
Discussions	<ul style="list-style-type: none"> • Adopt “best practices” policy in conjunction with the Soil and Water Conservation Commission • Meet with public electric utility companies to develop “best practices” for power conservation • Sponsor annual safety meeting for county employees
Responsible Agency	Board of Education, School Administrators
Economic Analysis	Cost increases effectiveness of practices
Estimated Cost	\$500.00
Source of Funds	Local
STAPLEE	ST-EE
Priority Rank	Medium
Timeline	1-3 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Drought/Heat Wave
Evaluation	Minutes of meeting

Goal 5: Maintain public services to minimize the risk and reduce property damage caused by severe winter weather.

Action 5.2: Schedule meetings with county highway foreman, city street directors, and state highway engineer to discuss snow removal, route closures, and general safety procedures.	
Project Status	On-going
Progress	County and local officials participate more readily in mutual agreements
Discussions	<ul style="list-style-type: none"> • Create an emergency snow route for county roads • Meet annually with critical facilities administrators to develop severe winter weather strategies • Educate the public utility end user on preventive measures to reduce the risk to property
Responsible Agency	Board of Education, School Administrators
Economic Analysis	Cost justified because of decrease of economic loss
Estimated Cost	\$200.00
Source of Funds	Local
STAPLEE	STAP-E
Priority Rank	Medium
Timeline	1-2 years
Type of Strategy	Emergency Services, Public Information and Awareness
Hazards Addressed	Severe Winter Weather
Evaluation	Minutes of meetings

Plan Maintenance Process

Plan Monitoring, Evaluating and Updating

The Mississippi County Commission has total responsibility for the implementation and monitoring process. The Commission has oversight capabilities to provide timeframes and support the work of the professional staff and volunteers in their mitigation efforts. The Mississippi County Emergency Manager shall monitor and document the progress of the recommended mitigation action throughout the year. Quarterly meetings, chaired by the emergency manager with the assistance of the mayors, should assess the validity and progress of the action plans for each city.

The Planning Team will be involved in the monitoring process. The plans' effectiveness will be evaluated as to whether the identified mitigation strategies do in fact protect lives and property. After the plan is approved, the four basic tasks required are:

1. Prepare to update the plan (every five years or after a disaster).
2. Examine community for changes.
3. Examine the current plan.
4. Incorporate the necessary revisions into the plan.

The following items should be addressed in future updates.

- New U.S. Census date
- Unemployment rates
- Higher education facilities mapping and enrollment information
- Other county demographic information
- Better mapping for school districts
- Jurisdiction specific information concerning vulnerability and potential loss
- Vulnerability to land by breach of levees in the county

The hazard mitigation plan is a dynamic document that needs to be revised and reviewed for its validity, adopted by the governing body and new initiatives implemented.

Local Incorporation of Mitigation Strategy into Other Planning Mechanisms

The Hazard Mitigation Plan for the county and its jurisdictions is a fluid document and must be re-evaluated periodically. The process by which local governments in Mississippi County will incorporate mitigation strategies into other planning mechanisms can be described as follows. Natural hazards as identified in the Mitigation Plan have and will continue to cause damage to life and property in Mississippi County. Historical and recent natural events have occurred in the county, have caused damage, and in all probability will continue. Local government officials recognize the dangers and have in the past, participated in and will continue to participate in developing mitigation strategies to lessen the dangers.

Local officials have met and will continue to meet with county emergency management personnel, local mayor's associations, county commissioners, and other county officials to update or apply to their local plans those mitigation strategies defined in the Plan. Recent natural occurrences, culminating in natural disaster declarations, have allowed local officials to realize the importance of defined mitigation strategies, and have prompted them to incorporate those strategies into their local plans.

Mitigation planning is an on-going process designed to safeguard counties and local jurisdictions from damages caused by natural hazards. The chart below specifies the documents available for incorporation of mitigation principles into other planning mechanisms.

	Mississippi Co.	Anniston	Bertrand	Charleston	East Prairie	Pinhook	Wilson City	Wyatt	Charleston R-I	East Prairie R-II
Local Comprehensive Plan	X	X	X	X	X		X	X		
Capital Improvement Plan										
Watershed Protection				X				X		
Flood Plain Mitigation Plan	X		X	X				X		
Emergency Management Plan		X		X	X	X	X	X		
Zoning Ordinance			X				X	X		
Subdivision Regulations			X	X	X					
Building Codes	X	X	X	X	X	X		X		
Storm Water Management	X									
Mutual Aid Agreement	X	X	X	X	X	X	X	X	X	X
Community Involvement Plan										
Community Disaster Preparation Plan	X	X	X	X	X	X	X	X	X	X
Evacuation Plans									X	X
Severe Weather Route Plans									X	X
Earthquake Plans	X			X					X	X
Safe Room Construction										

The Mississippi County Hazard Mitigation Plan will be integrated into the Mississippi County Emergency Operations Plan when it is updated. The EOP update is the

responsibility of the Emergency Management Director and staff. The Emergency Operations Plan covers all jurisdictions within Mississippi County.

Specific information on integration of the plan into other planning mechanisms in the participating jurisdictions is shown in the chart below. The same incorporation activities has occurred during the five years since the previously approved plan was developed.

Integration of Mitigation Actions into Other Planning Mechanisms	
Participating Jurisdiction	Plan for Integration
Mississippi County	Prior to issuing any permits to determine proximity to designated floods areas, the Flood Plane Manager will determine the suitability of the proposed site. Codes and regulations will be review and updated. Staff training will be a priority. Enhanced mutual aid agreements with county jurisdictions will be reviewed.
Anniston	The City of Anniston will review its ordinances and policies to evaluate their impact on the risks or consequences of the occurrences of natural disasters. The City will review and strengthen its mutual aid agreement with Mississippi Co.
Bertrand	The Mitigation Plan will be reviewed and incorporated in the city's codes and ordinances. Specific emphasis will be placed on zoning and building codes.
Charleston	Charleston will strengthen its Emergency Management Plan with specific emphasis on Flood Plain management and watershed protection and implementation of activities for continued compliance with NFIP. Other emphasis will be on staff training to counter the effects of natural hazards.
East Prairie	East Prairie will provide staff review of planned actions, ordinances, and formally review the consequences with the occurrence of natural disasters. Continued compliance with NFIP will be emphasized.
Pinhook	Being a very small jurisdiction with few local resources, Pinhook will strengthen its mutual aid agreement with the Mississippi County. A review of its emergency management plan specific to natural hazards will occur.
Wilson City	Wilson City will strengthen its mutual aid agreement with Mississippi County. The City will review its storm water management plan and flood plain management plan. Emphasis will be on mitigation actions such as tree trimming, storm and warming shelters, and continued staff training.
Wyatt	Wyatt will continue with staff training and mutual aid commitments with Mississippi County.
Charleston-I	Plans to address the natural hazards listed in the Mitigation Plan are ongoing. Emphasis will be placed on earthquakes, flooding, power outages, heat and severe winter weather. Tornado safe room construction should be discussed.
East Prairie R-II	Plans to address the natural hazards listed in the Mitigation Plan are ongoing. Emphasis will be placed on earthquakes, flooding, power outages, heat and severe winter weather. Tornado safe room construction should be discussed.

Public Participation

Public participation has occurred during the previous five years, and will continue into the next five years by using the following strategy:

The Mississippi County Emergency Management Director will coordinate mitigation strategies within the respective county and local jurisdictions. The Mississippi County Mayor's Association, which meets monthly, will remain the main focus of local jurisdictional involvement. Emergency preparedness meetings will be held as required to discuss potential damages from natural hazards such as storms, tornadoes, winter storms, and earthquakes. Local officials and citizens will be notified using the press and local radio stations. The Mississippi County Emergency Management Director will facilitate presenting the entire plan to interested groups within the county such as:

- Health Department Personnel
- City Fire and Rural Fire Protection Districts
- City Elected Officials/Administrators
- Educational Personnel
- Local Emergency Planning Committees
- Local Police/Sheriff Department Personnel
- Mississippi County Commissioners/Directors
- Public Safety Committee Meetings

Defined mitigation strategies and new features will be emphasized to the public in order to provide them with information necessary to protect them from loss of property and injury.

Plan Maintenance

The Mississippi County Hazard Mitigation Plan will be monitored and evaluated on a yearly basis during the months of July and August, beginning in the year following approval and adoption. This would mean there would be four monitoring/evaluation periods (July/August 2011, July/August 2012, July/August 2013, and July/August 2014). The last monitoring and evaluation in 2014 will lead into the 5-year update process.

The monitoring and evaluation will be facilitated through the Bootheel Regional Planning Commission. It will consist of the following:

- Surveys will be sent to all participating jurisdictions for information that might suggest changes in priorities and mitigation actions due to recent natural hazard events, changes in key personnel, and progress made toward implementing major elements of the Plan.
- Planners at the Bootheel Regional Planning Commission will collect survey information.
- Meetings of the Hazard Mitigation Steering Committee will be convened by the Bootheel Regional Planning Commission to discuss any changes as they related the Plan.
- A yearly report will be written and included as an addition to the update process

Assuming approval and adoption of the current plan, the Mississippi County Hazard Mitigation Plan will need to be updated and re-approved by FEMA in the summer of 2015. A proposed schedule for the update is shown below:

Proposed Schedule for 5-year Update of Hazard Mitigation Plan		
Activity	Timeline to Begin	Responsible Party
Preliminary update of data	Yearly during maintenance and review of plan	BRPC
Prepare cost estimates for update of plan and submit to SEMA	PED-13	BRPC
Receive Memorandum of Agreement for SEMA for update	PED-11	SEMA
Review data for any additional updates	PED-11	BRPC
Steering Committee presents updates from jurisdictions	PED-10	BRPC
Jurisdictions surveyed for changes	PED-10	BRPC
Meetings to conduct preliminary review and update plan	PED-9	Steering Committee
Public meeting for comment and input on draft update	PED-9	BRPC/Steering Committee
Draft of update due at SEMA	PED-6	BRPC
Participating jurisdictions hold meetings to discuss plan and mitigation actions	PED-6	Jurisdictions
Public meeting #2 for comment and input of final update	PED-4	BRPC/Steering Committee
Final plan due at SEMA for review before submission to FEMA	PED-3	BRPC
Plan reviewed by SEMA	PED-3	SEMA
Required changes and additions	PED-2	BRPC
Plan submitted to FEMA	PED-2	SEMA
Jurisdictions adopt approved plan	PED-1	Jurisdictions
PED = Plan Expiration Date		