4 MITIGATION STRATEGY

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44 CFR Requirement §201.6(c)(3): The plan shall include a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.

This section presents the mitigation strategy updated by the Mitigation Planning Committee (MPC) based on the updated risk assessment. The mitigation strategy was developed through a collaborative group process. The process included review of updated general goal statements to guide the jurisdictions in lessening disaster impacts as well as specific mitigation actions to directly reduce vulnerability to hazards and losses. The following definitions are taken from FEMA's *Local Hazard Mitigation Review Guide (October 1, 2012)*.

- **Mitigation Goals** are general guidelines that explain what you want to achieve. Goals are long-term policy statements and global visions that support the mitigation strategy. The goals address the risk of hazards identified in the plan.
- **Mitigation Actions** are specific actions, projects, activities, or processes taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals.

4.1 Goals

44 CFR Requirement §201.6(c)(3)(i): [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

This planning effort is an update to Morgan County's existing hazard mitigation plan approved by FEMA in 2018. Therefore, the goals from 2018 Morgan County Hazard Mitigation Plan were reviewed to see if they were still valid, feasible, practical, and applicable to the defined hazard impacts. The MPC conducted a discussion session during their second meeting to review and update the plan goals. To ensure that the goals developed for this update were comprehensive and supported State goals, the 2018 State Hazard Mitigation Plan goals were reviewed. The MPC also reviewed the goals from current surrounding county plans. The current goals are listed below.

- Mitigate the effects of potential natural hazards in Morgan County
- Protect Morgan County's assets and populace through cost-effective and tangible mitigation projects whenever financially feasible.
- Mitigation Procedures Encourage continuity of operations of government in addition, emergency services in a disaster.
- Mitigation Public Awareness- Increase public awareness of natural hazards that have the potential to impact Morgan County.

4.2 Identification and Analysis of Mitigation Actions

44 CFR Requirement §201.6(c)(3)(ii): The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

Some specific sources for mitigation action ideas include the following:

- FEMA's Mitigation Action Ideas Publication, <u>https://www.fema.gov/media-library/assets/documents/30627</u>
- FEMA's Climate Resilient Activities for Hazard Mitigation Assistance, https://www.fema.gov/media-library/assets/documents/110202
- EPA's Hazard Mitigation for Natural Disasters Publication, <u>https://www.epa.gov/waterutilityresponse/hazard-mitigation-natural-disasters</u>
- EPAs Planning for an Emergency Drinking Water Supply Publication, <u>https://www.epa.gov/waterutilityresponse/water-utility-planning-emergency-drinking-water-</u> <u>supply</u>

As the MPC and individual jurisdictions reviewed each action the planning team looked for actions that were SMART actions.

- Specific
- Measurable
- Achievable
- Relevant
- Time Bound

During the second MPC meeting, the results of the risk assessment update were provided to the MPC members for review and the key issues were identified for specific hazards. Changes in risk since adoption of the previously approved plan were discussed. Actions from the previous plan included completed actions, on-going actions, and actions upon which progress had not been made. The MPC discussed SEMA's identified funding priorities and the types of mitigation actions recognized by FEMA.

The MPC included problem statements in the plan update at the end of each hazard profile. The problem statements summarize the risk to the planning area presented by each hazard and include methods to reduce that risk. Use of the problem statements allowed the MPC to recognize new and innovative strategies to mitigate risks in the planning area.

The focus of the second and third meeting as well as individual jurisdictional meeting, was to update the mitigation strategies. For a comprehensive range of mitigation actions to consider and complete, the MPC reviewed the following information during those meetings:

- A list of actions proposed in the previous mitigation plan, the current State Plan, and approved plans in surrounding counties,
- Key issues from the risk assessments, including the problem statements concluding each hazard profile and vulnerability analysis,
- State priorities established for HMA grants, and
- Public input during meetings, responses to data collection questionnaires, and other efforts to involve the public in the plan development process.

In the meetings, individual jurisdictions, including school and special districts, developed final mitigation strategy for submission to the MPC. They were encouraged to review the details of the risk assessment vulnerability analysis specific to their jurisdiction. They were also provided a link to the FEMA's publication, *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).* This document was developed by FEMA as a resource for identification of a range of potential mitigation actions for reducing risk to natural hazards and disasters.

The MPC reviewed the actions for progress made since the previous plan had been adopted, using the previous STAPLEE worksheets below. Prior to the third meeting, the list of actions for each jurisdiction was emailed to that jurisdiction's representative along with the worksheets. During the third meeting each action was reviewed and given one of the following statuses:

- Completed, with a description of the progress.
- Ongoing, with a description of the progress made to date.
- Not Yet Started, with a discussion of the reasons for lack of progress.

This plan was developed prior to the release of FEMA's Local mitigation Planning Policy Guide, Effective April 19, 2023. Future hazard mitigation plan update cycles will include analysis of actions that address limiting risk to new development and redevelopment as required under 44 CFR 201.6 (c)(3)(ii).

0 provides a summary of the action statuses for each jurisdiction:

Table 4.1. Action Status Summary

Jurisdiction	Completed Actions	Continuing Actions (ongoing or modify)	Not Yet Started
Morgan County	3	6	1
City of Barnett		1	1
City of Laurie	1	1	1
City of Stover		3	1
City of Syracuse		1	1
City of Versailles		2	1
Village of Gravois Mills		1	1
Morgan R-I School District		3	1
Morgan R-II School District		1	1
Gravois Fire Protection District		1	1

Table 4.2. Summary of Completed and Deleted Actions from the Previous Plan

Completed Actions	Completion Details
	(date, amount, funding source)
2.1.27 The Low Water Crossing at Proctor Lane needs repair or replacement – Morgan County	Completion Date and Amount unknown at this time
2.1.26 The Low Water Crossing at Ouachita needs repair or replacement- Morgan County	Completion Date and Amount unknown at this time
2.1.23 Rabbit Lane Bridge in need of serious repair or replacement – Morgan County	Completion Date and Amount unknown at this time
	Completed at the end of 2022. ARPA funds were used to complete this project

	Completed 5/27/2016 with funding from CDBG Disaster Planning Grant it was part of several projects. Exact \$ not specific to just this data collection.
	Completed 5/27/2016 with funding from CDBG Disaster Planning Grant it was part of several projects. Exact \$ not specific to just this data collection.
	Completed 5/27/2016 with funding from CDBG Disaster Planning Grant it was part of several projects. Exact \$ not specific to just this data collection.
	Completed 5/27/2016 with funding from CDBG Disaster Planning Grant it was part of several projects. Exact \$ not specific to just this data collection.
	Completed 5/27/2016 with funding from CDBG Disaster Planning Grant it was part of several projects. Exact \$ not specific to just this data collection.
	Reason for Deletion
•	Not feasible as no jurisdiction completed an Action Worksheet for this action.
1.1.2 Evaluate existing facilities for shelter options. Develop a plan to clearly identify shelter locations for both visitors and employees within all public buildings.	
1.1.3 Seek funding to add shelters to existing public facilities to ensure adequate protection from tornadoes and strong winds.	Changed Morgan County R-III School District 1.1.3 and 1.1.14
1.1.4 Seek funding for communities interested in upgrading or installing early warning systems.	Changed City of Stover 1.1.4
1.1.5 Coordinate with community service organizations to provide assistance and volunteer labor to help low-income residents and elderly winterize their homes.	completed an Action Worksheet for
	this action.
1.1.6 Create a network of community partners, including public health agencies, emergency management agencies, volunteer organizations, to designate community locations with adequate air conditioning that can be used as heat emergency shelters during a heat wave.	Not feasible as no jurisdiction completed an Action Worksheet for

1.1.8 Develop drought plans and water conservation programs.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
1.1.9 Increase hazard assessment information on dams within Morgan County	Not feasible as no jurisdiction completed an Action Worksheet for this action.
1.1.10 Maintain mapping on all dams that are not currently regulated by MDNR.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
1.1.11 Pursue all available grant opportunities to protect critical facilities from natural hazards.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
2.1.1 Increase public awareness and understanding of the benefits of a FEMA Safe Room 361 and seek funding for the building of Safe Rooms wherever needed.	
2.1.2 Collaborate with trade organizations, engineers, and school districts to conduct Safe Room seminars.	Changed to Morgan R-II School District 1.1.3
2.1.3 Encourage construction of community tornado shelters in office buildings, manufacturing facilities, multi-family rental units, schools, mobile home parks, and other large population congregation centers.	
2.1.5 Participate in the National Flood Insurance Program (NFIP)	Changed to Morgan County 2.1.5, City of Laurie 2.1.5, City of Stover 2.1.5, City of Versailles 2.1.5, Village of <u>Gravois Mills 2.1.5</u>
2.1.10 Encourage local governments and local businesses to develop a snow day policy that only requires essential personnel to be on the road during severe winter weather events.	
2.1.11 Make the public aware of the Morgan County Emergency Operations Plan regarding heat-related mitigation.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
2.1.12 Work with community groups to sponsor a program to encourage neighbors to check on at risk people within their communities. Such as neighborhood watch or CERT.	
2.1.13 Temporarily reduce or eliminate fees for swimming pools during extended periods of extreme heat and humidity, applicable only to communities with swimming pools.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
2.1.14 Review the Missouri Drought Plan and local drought plans available at Missouri Department of Natural Resources incorporate into local Emergency Management plan.	
2.1.15 Incorporate GIS Mapping into Morgan County Emergency Management Operations, regarding wildfire history and potential high-risk areas for wildfires.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
2.1.16 Use of burn bans during high-risk conditions such as high winds, dry conditions, and drought.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
2.1.17 Use of burn bans during high-risk conditions such as high winds, dry conditions, and drought.	Not feasible as no jurisdiction completed an Action Worksheet for this action.

	completed an Action Worksheet for this action.
	Not feasible as no jurisdiction completed an Action Worksheet for this action.
2.1.20 For dams that are not regulated by MDNR encourage dam owners to inspect their dams and identify all repairs needed. Encourage repairs be made for the protection of lives and property in the inundation pathway.	
3.1.1 Encourage the use of tempered or shatter-resistant glass in the windows and doors of new public and private facilities where large numbers of people may congregate.	
	Action Changed to projects identified under Morgan County 2.1.25, 2.1.26, 2.1.27
3.1.4 Encourage Fire Department, Fire Districts, and Ambulance Districts to have alternate routes developed in the event a low water crossing is impassable.	
	Not feasible as no jurisdiction completed an Action Worksheet for this action.
3.1.6 Encourage both government agencies and businesses that have employees that must work outside during the day to have an alternate start and end time during the extreme heat.	
•	Not feasible as no jurisdiction completed an Action Worksheet for this action.
the annual shakeout earthquake drill.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
4.1.1 Work with our Chamber of Commerce, school districts, builders' associations, and communities in educating our communities on the potential natural hazards and promoting the benefits of Safe Rooms.	
	Action has been addressed with specific actions by Morgan County R-II School District 1.1.3 and Morgan County R-II School District 4.1.20
4.1.3 Work with builders, developers, and manufacturers of building materials that are tornado and wind damage resistant to demonstrate the benefits of these materials as well as building techniques that have been proven effective.	completed an Action Worksheet for this action.
4.1.5 With brochures provided by both FEMA and SEMA concerning flood mitigation, flood preparedness, and Flood Response and Recovery work with local volunteers and civic organizations to distribute them to current homeowners and businesses in the area.	completed an Action Worksheet for
	Not feasible as no jurisdiction completed an Action Worksheet for this action.
	Not feasible as no jurisdiction completed an Action Worksheet for this action.

4.1.10 Work with local builders' association and developers to create a public workshop on how to effectively winterize your home.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
4.1.12 Disseminate information to the public as to locations for heat relief and heat shelters available within the region.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
4.1.14 Morgan County Emergency Management in collaboration with othe public safety agencies to conduct emergency response exercises.	Not feasible as no jurisdiction completed an Action Worksheet for this action.
4.1.16 Morgan County Emergency Management in collaboration with other public safety agencies to conduct emergency response exercises.	Not feasible as no jurisdiction completed an Action Worksheet for this action.

Source: Previously approved County Hazard Mitigation Plans; Data Collection Questionnaires, Meeting with each Jurisdiction on the Action Worksheets

4.3 Implementation of Mitigation Actions

44 CFR Requirement §201.6(c)(3)(ii): The mitigation strategy shall include an action strategy describing how the actions identified in paragraph (c)(2)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefits review of the proposed projects and their associated costs.

Jurisdictional MPC members were encouraged to meet with others in their community to finalize the actions to be submitted for the updated mitigation strategy. Throughout the MPC consideration and discussion, emphasis was placed on the importance of a benefit-cost analysis in determining project priority. The Disaster Mitigation Act requires benefit-cost review as the primary method by which mitigation projects should be prioritized. The MPC decided to pursue implementation according to when and where damage occurs, available funding, political will, jurisdictional priority, and priorities identified in the 2018 Missouri State Hazard Mitigation Plan. The benefit/cost review at the planning stage primarily consisted of a qualitative analysis and was not the detailed process required grant funding application. For each action, the plan sets forth a narrative describing the types of benefits that could be realized from action implementation. The cost was estimated as closely as possible, with further refinement to be supplied as project development occurs.

FEMA's STAPLEE methodology was used to assess the costs and benefits, overall feasibility of mitigation actions, and other issues impacting project. During the prioritization process, the jurisdictions used worksheets to assign scores. The worksheets posed questions based on the STAPLEE elements as well as the potential mitigation effectiveness of each action. Scores were based on the responses to the questions as follows:

Definitely YES = 3 points Maybe YES = 2 points Probably NO = 1 points Definitely NO = 0 points

The following questions were asked for each proposed action.

- S: Is the action socially acceptable?
- T: Is the action technically feasible and potentially successful?
- A: Does the jurisdiction have the administrative capability to successfully implement this action?
- P: Is the action politically acceptable?
- L: Does the jurisdiction have the legal authority to implement the action?
- E: Is the action economically beneficial?

E: Will the project have an environmental impact that is either beneficial or neutral? (score "3" if positive and "2" if neutral)

Will the implemented action result in lives saved? Will the implanted action result in a reduction of disaster damage?

Adoption and enforcement of floodplain management requirements, including regulating new construction in Special Flood Hazard Areas (SFHAs); Floodplain identification and mapping, including any local requests for map updates; or Description of community assistance and monitoring activities.

Figure 4.1. Blank STAPLEE Worksheet

STAPLEE Worksheet		
Name of Jurisdiction:		
	Action or Project	
Action/Project Number:	Insert a unique action number for this action for This can be a combination of the jurisdiction nan number and action number (i.e., Joplin1.1)	
Name of Action or Project:		
Mitigation Category:	Prevention; Structure and Infrastructure Projects Protection; Education and Outreach; Emergency	-
STA	PLEE Criteria	
Eva Definitely YES Probably NO =	•	Score
S: Is it Socially Acceptable		
T: Is it Technically feasible and potent	ially successful?	
A: Does the jurisdiction have the adm	inistrative capacity to execute this action?	
P: Is it Politically acceptable?		
L: Is there Legal authority to implement	nt?	
E: Is it Economically beneficial?		
E: Will the project have either a neutre Environment?	al or positive impact on the natural	
Will historic structures be saved or pro	otected?	
Could it be implemented quickly?		
	STAPLEE SCORE	
Mitigation Effectiveness Criteria	Evaluation Rating	Score
Will the implemented action result in lives saved? Will the implemented action result in	Assign from 5-10 points based on the likelihood that lives will be saved. Assign from 5-10 points based on the relative	
a reduction of disaster damages?	reduction of disaster damages. MITIGATION EFFECTIVENESS SCORE	
	TOTAL SCORE (STAPLEE +	
	Mitigation Effectiveness)	

High Priority (30+ points)	Medium Priority (25 - 29 points)	Low Priority (<25 points)
Completed by		
(Name, Title, Phone Number)		

Action Worksheet		
Name of Jurisdiction:	Morgan County, City of Barnett, City of Laurie, City of Stover, City of Syracuse, City of Versailles, Village of Gravois Mills, Morgan County R-I School District, and Morgan County R-II School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood, Levee Failure, Dam Failure, Earthquakes, Sinkholes, Drought, Extreme Temperatures, Severe Thunderstorms, Severe Winter Weather, Tornados, and Wildfire	
Problem being Mitigated:	Public Awareness	
	Action or Project	
Applicable Goal Statement:	Mitigation Planning – Mitigate the effects of potential natural hazards in Morgan County	
Action/Project Number:	1.1	
Name of Action or Project:	Public Awareness Campaign	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Morgan County, City of Barnett, City of Laurie, City of Stover, City of Syracuse, City of Versailles, Village of Gravois Mills, Morgan County R-I School District, and Morgan County R-II School District will conduct a public awareness campaign to address all identified natural hazards.	
Estimated Cost:	\$20,000	
Benefits:	The Public Awareness Campaign will educate the citizens of each community on what to look for, how they will be notified, actions to take, who to contact and where to go in the event of Natural Disaster.	
	Plan for Implementation	
Responsible Organization/Department:	This will be a joint effort with the officials of Morgan County, City of Barnett, City of Laurie, City of Stover, City of Syracuse, City of Versailles, Village of Gravois Mills, Morgan County R-I School District, and Morgan County R-II School District	
Supporting Organization/Department:		
Action/Project Priority:	Medium	
Timeline for Completion:	3-5 Years	
Potential Fund Sources:	HMA Grant Funding, County General fund, City and school district general funds	
Local Planning Mechanisms to be Used in Implementation, if any:		
	Progress Report	
Action Status:	Not Started	
Report of Progress:		

Action 1.1: Seek funding to fix infrastructure along River Road.

Action Worksheet			
Name of Jurisdiction:	Morgan County		
	Risk / Vulnerability		
Hazard(s) Addressed:	Flooding (Riverine and Flash)		
Problem being Mitigated:	Repetitive Flooding of structures along River Road		
	Action or Project		
Applicable Goal Statement:			
Action/Project Number:	1.1		
Name of Action or Project:	Acquisition of 5 structures along River Road		
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services		
Action or Project Description:	Morgan County will apply for HMA funding for the acquisition project, including preparation of grant application, coordination with homeowners, and securing local match funding.		
Estimated Cost:	\$100,000-\$500,000		
Benefits:	Life safety and removal of structures will eliminate the flood risk to residents and response personnel.		
	Plan for Implementation		
Responsible Organization/Department:	Morgan County EMA		
Supporting Organization/Department:			
Action/Project Priority:	High		
Timeline for Completion:	3-5 Years		
Potential Fund Sources:	HMA Grant Funding		
Local Planning Mechanisms to be Used in Implementation, if any:			
Progress Report			
Action Status:	Ongoing		
Report of Progress:			

Goal 1: Mitigation Planning – Mitigate the effects of potential natural hazards in Morgan County **Action 1.1.3:** Seek funding to add a FEMA 361 Safe Room-Storm Shelter within City of Stover

Action Worksheet			
Name of Jurisdiction:	Morgan R-1 School District		
	Risk / Vulnerability		
Hazard(s) Addressed:	Severe Thunderstorms		
Problem being Mitigated:	Safety of school students and staff, as well as residents of Stover		
	Action or Project		
Applicable Goal Statement:			
Action/Project Number:	1.1.3		
Name of Action or Project:	Morgan County R-I School District Safe Room Project		
Mitigation Category:			
Action or Project Description:	Build a safe room at Morgan County R-I School Camp.us		
Estimated Cost:	Over \$1,000,000		
Benefits:	Ensure the safety of the students and facilities during a storm event or tornado. Providing shelter for the residents of the community.		
	Plan for Implementation		
Responsible Organization/Department:	Morgan R-I School District		
Supporting Organization/Department:			
Action/Project Priority:	STAPLEE 15-H		
Timeline for Completion:	1-5 Years		
Potential Fund Sources:	Mitigation Funding and School Bond Funding		
Local Planning Mechanisms to be Used in Implementation, if any:	School District Investment Plan		
Progress Report			
Action Status:	Complete		
Report of Progress:			

Goal 1: Mitigation Planning – Mitigate the effects of potential natural hazards in Morgan County

Action 1.1.4: Seek funding for communities interested in upgrading or installing warning systems.

Action Worksheet	
Name of Jurisdiction:	City of Stover
	Risk / Vulnerability
Hazard(s) Addressed:	Early Warning – All Hazards
Problem being Mitigated:	Early Warning – All Hazards
	Action or Project
Applicable Goal Statement:	
Action/Project Number:	1.1.4
Name of Action or Project:	Seek funding for communities interested in upgrading or installing early warning systems. The proposed early warning siren would be close to the Golden Age Living Center, a nursing home on the corner of Third Street and Mimosa Street.
Mitigation Category:	
Action or Project Description:	Increase the number of early warning sirens within the City of Stover when Funding is available.
Estimated Cost:	\$10,000-\$50,000
Benefits:	Additional coverage or early warning sirens increase the safety of the residents and the tourists visiting the Stover area.
	Plan for Implementation
Responsible Organization/Department:	City of Stover – Floodplain Manager
Supporting Organization/Department:	
Action/Project Priority:	STAPLEE 15-H
Timeline for Completion:	1-5 Years
Potential Fund Sources:	Mitigation Funding and City Funding
Local Planning Mechanisms to be Used in Implementation, if any:	Flood Plain Management
Progress Report	
Action Status:	On Going
Report of Progress:	

Action Worksheet		
Name of Jurisdiction:	Morgan County	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding (Riverine and Flash)	
Problem being Mitigated:	Potential Flooding and Access to Flood Insurance	
	Action or Project	
Applicable Goal Statement:		
Action/Project Number:	2.1.5	
Name of Action or Project:	National Flood Insurance Program NFIP	
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services	
Action or Project Description:	Continue to participate in the NFIP and comply with the program's requirements.	
Estimated Cost:	NA	
Benefits:	Allowing our residents access to flood insurance is an important way for us to provide security to our county residents. Not allowing them to build in a floodplain or floodway is also a preventative measure to ensure the safety of our county residents.	
	Plan for Implementation	
Responsible Organization/Department:	Morgan County Floodplain Manager	
Supporting Organization/Department:		
Action/Project Priority:	STAPLEE 13-M	
Timeline for Completion:		
Potential Fund Sources:	Part of the County's Annual Budget	
Local Planning Mechanisms to be Used in Implementation, if any:	Flood Plain Management	
Progress Report		
Action Status:	On Going	
Report of Progress:		

Action 2.1.5: Participate in the National Flood Insurance Program (NFIP)

Action Worksheet	
Name of Jurisdiction:	City of Stover
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding (Riverine and Flash)
Problem being Mitigated:	Potential Flooding and Access to Flood Insurance
	Action or Project
Applicable Goal Statement:	
Action/Project Number:	2.1.6
Name of Action or Project:	National Flood Insurance Program NFIP
Mitigation Category:	Mitigation Planning – Mitigate the effects of potential natural hazards in Morgan County.
Action or Project Description:	Continue to participate in the NFIP and comply with the requirements of the program.
Estimated Cost:	NA
Benefits:	Allowing our residents access to flood insurance is an important way for us to provide security to our county residents. Not allowing them to build in a flood plain or floodway is also a preventative measure to ensure the safety of our county residents.
	Plan for Implementation
Responsible Organization/Department:	City of Stover Floodplain Manager
Supporting Organization/Department:	
Action/Project Priority:	STAPLEE 13-M
Timeline for Completion:	NA
Potential Fund Sources:	Part of County's Annual Budget
Local Planning Mechanisms to be Used in Implementation, if any:	Flood Plain Management
Progress Report	
Action Status:	On Going
Report of Progress:	

Action 2.1.6: Participate in the National Flood Insurance Program (NFIP)

Action Worksheet	
Name of Jurisdiction:	City of Laurie
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding (Riverine and Flash)
Problem being Mitigated:	Potential Flooding and Access to Flood Insurance
	Action or Project
Applicable Goal Statement:	
Action/Project Number:	2.1.7
Name of Action or Project:	National Flood Insurance Program NFIP
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services
Action or Project Description:	Continue to participate in the NFIP and comply with the program's requirements.
Estimated Cost:	NA
Benefits:	Allowing our residents access to flood insurance is an important way for us to provide security to our county residents. Not allowing them to build in a floodplain or floodway is also a preventative measure to ensure the safety of our county residents.
	Plan for Implementation
Responsible Organization/Department:	City of Laurie Floodplain Manager
Supporting Organization/Department:	
Action/Project Priority:	STAPLEE 13-M
Timeline for Completion:	NA
Potential Fund Sources:	Part of Morgan County annual budget
Local Planning Mechanisms to be Used in Implementation, if any:	Flood plain Management
Progress Report	
Action Status:	On Going
Report of Progress:	

Action 2.1.7: Participate in the National Flood Insurance Program (NFIP)

Action Worksheet	
Name of Jurisdiction:	City of Versailles
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding (Riverine and Flash)
Problem being Mitigated:	Potential Flooding and Access to Flood Insurance
	Action or Project
Applicable Goal Statement:	
Action/Project Number:	2.1.8
Name of Action or Project:	National Flood Insurance Program NFIP
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services
Action or Project Description:	Continue to participate in the NFIP and comply with the program's requirements.
Estimated Cost:	NA
Benefits:	Allowing our residents access to flood insurance is an important way for us to provide security to our county residents. Not allowing them to build in a floodplain or floodway is also a preventative measure. to ensure the safety of our county residents.
	Plan for Implementation
Responsible Organization/Department:	City of Versailles Floodplain Manager
Supporting Organization/Department:	
Action/Project Priority:	STAPLEE 13-M
Timeline for Completion:	NA
Potential Fund Sources:	Part of Morgan County annual budget
Local Planning Mechanisms to be Used in Implementation, if any:	Flood Plain Management
Progress Report	
Action Status:	On Going
Report of Progress:	

Action 2.1.8: Participate in the National Flood Insurance Program (NFIP)

Action Worksheet		
Name of Jurisdiction:	Village of Gravois Mills	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding (Riverine and Flash)	
Problem being Mitigated:	Potential Flooding and Access to Flood Insurance	
	Action or Project	
Applicable Goal Statement:		
Action/Project Number:	2.1.9	
Name of Action or Project:	National Flood Insurance Program NFIP	
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services	
Action or Project Description:	Continue to participate in the NFIP and comply with the requirements of the program.	
Estimated Cost:	NA	
Benefits:	Allowing our residents access to flood insurance is an important way for us to provide security to our county residents. Not allowing them to build in a floodplain or floodway is a preventative measure to ensure the safety of our county residents.	
	Plan for Implementation	
Responsible Organization/Department:	Village of Gravois Mills Floodplain Manager	
Supporting Organization/Department:		
Action/Project Priority:	STAPLEE 13-M	
Timeline for Completion:	NA	
Potential Fund Sources:	Part of Morgan County annual budget	
Local Planning Mechanisms to be Used in Implementation, if any:	Flood Plain Management	
	Progress Report	
Action Status:	On Going	
Report of Progress:		

Action 2.1.9: Participate in the National Flood Insurance Program (NFIP)

Action 2.1.22: Seek funding to mitigate flooding issues downtown, roadway improvements, and drainage improvements to HWY 5 and Hwy52 west of Hwy 52 in Versailles.

Action Worksheet	
Name of Jurisdiction:	City of Versailles
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding (Riverine and Flash)
Problem being Mitigated:	Flooding when there are heavy rains, the accumulation of water backs up at Hwy 5 and 52 in the creek area which is a flood plain a flooding event in downtown Versailles.
	Action or Project
Applicable Goal Statement:	
Action/Project Number:	2.1.22
Name of Action or Project:	Seek funding highway improvements and water control improvements that will decrease the potential flooding in the downtown Versailles area.
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services
Action or Project Description:	Improve highway and water control improvements to limit the flooding and increase safety on the highways and in the community.
Estimated Cost:	\$100,000-\$500,000
Benefits:	Improve highways and water control improvements to limit flooding events and increase highway safety and community safety.
	Plan for Implementation
Responsible Organization/Department:	City of Versailles
Supporting Organization/Department:	
Action/Project Priority:	STAPLEE 14-H
Timeline for Completion:	1-5 Years
Potential Fund Sources:	Mitigation Funding, MoDOT funding, and City Funding
Local Planning Mechanisms to be Used in Implementation, if any:	City of Versailles
Progress Report	
Action Status:	On Going
Report of Progress:	

Action 2.1.24: Seek funding to repair or replace Whippoorwill Bridge.

Action Worksheet	
Name of Jurisdiction:	Morgan County
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding (Riverine and Flash)
Problem being Mitigated:	Whipporwill bridge needs serious repair and or replacement.
	Action or Project
Applicable Goal Statement:	
Action/Project Number:	2.1.24
Name of Action or Project:	Whhipporwill Bridge
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services
Action or Project Description:	Seek funding and bridge repairs or replacement to make the bridge safer during flood events.
Estimated Cost:	\$100,000-\$500,000
Benefits:	Improve the safety of motorists that use the bridge daily.
	Plan for Implementation
Responsible Organization/Department:	Morgan County
Supporting Organization/Department:	
Action/Project Priority:	STAPLEE 13-M
Timeline for Completion:	1-5 Years
Potential Fund Sources:	Mitigation Funding, County Funding
Local Planning Mechanisms to be Used in Implementation, if any:	Morgan County
Progress Report	
Action Status:	On Going
Report of Progress:	

Action 2.1.25: Seek funding to repair or replace Deer Ridge Drive low water crossing.

Action Worksheet	
Name of Jurisdiction:	Morgan County
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding (Riverine and Flash)
Problem being Mitigated:	The low water crossing at Deer Ridge Drive needs repair or replacement.
	Action or Project
Applicable Goal Statement:	Mitigation Programs – Protect Morgan County's assets and populace through cost-effective and tangible mitigation projects whenever financially feasible.
Action/Project Number:	2.1.25
Name of Action or Project:	Deer Ridge Drive – low water crossing
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services
Action or Project Description:	Seek funding for low water crossing repairs or replacement to make it safer during flood events.
Estimated Cost:	\$10,000
Benefits:	Improve the safety of motorist that use this bridge on daily basis
	Plan for Implementation
Responsible Organization/Department:	Morgan County
Supporting Organization/Department:	
Action/Project Priority:	STAPLEE 13-M
Timeline for Completion:	1-5 Years
Potential Fund Sources:	Mitigation funding, County Funding
Local Planning Mechanisms to be Used in Implementation, if any:	Morgan County
Progress Report	
Action Status:	On Going
Report of Progress:	

Action Worksheet		
Name of Jurisdiction:	Morgan R-II School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	Wildfire	
Problem being Mitigated:	The current system is not working in the elementary school building. Morgan R- II school district would like to integrate the fire alarm systems with the other building so the alarm will function properly and alert all students at the same time.	
	Action or Project	
Applicable Goal Statement:		
Action/Project Number:	2.1.28	
Name of Action or Project:	Fire Alarm System Improvements	
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services	
Action or Project Description:	Repair or replace the fire alarm warning system in the Morgan R-II school building.	
Estimated Cost:	\$50,000-\$100,000	
Benefits:	Improve the safety of the students and facilities working in the buildings that currently have no warning system.	
	Plan for Implementation	
Responsible Organization/Department:	Morgan R-II School District	
Supporting Organization/Department:		
Action/Project Priority:	STAPLEE 16-H	
Timeline for Completion:	1-5 Years	
Potential Fund Sources:	Mitigation Funding, School annual repair budget	
Local Planning Mechanisms to be Used in Implementation, if any:	School Facilities Plan	
	Progress Report	
Action Status:	On Going	
Report of Progress:		

Action 2.1.28: Repair or replace fire alarm warning system.

Action 2.1.30: Seek funding to mitigate flooding issues in Barnett, roadway improvements, and drainage improvements to Hwy AA and Locust Street.

Action Worksheet	
Name of Jurisdiction:	City of Barnett
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding (Riverine and Flash)
Problem being Mitigated:	Flooding when there is heavy rain the accumulation of water backs up at Hwy AA and Locust Street.
	Action or Project
Applicable Goal Statement:	Mitigation Programs – Protect Morgan County's assets and populace through cost-effective and tangible mitigation projects whenever financially feasible.
Action/Project Number:	2.1.30
Name of Action or Project:	Seek funding for drainage ditch improvements that will elevate flooding in areas.
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services
Action or Project Description:	Make improvements to highway and water control improvements to limit the flooding events and increase safety on the highways and in the community.
Estimated Cost:	NA
Benefits:	Make improvements to highways and water control improvements to limit the flooding events and increase safety on
	Plan for Implementation
Responsible Organization/Department:	City of Barnett
Supporting Organization/Department:	
Action/Project Priority:	STAPLEE 14-M
Timeline for Completion:	More than 5 Years
Potential Fund Sources:	Mitigation Funding, City Funding
Local Planning Mechanisms to be Used in Implementation, if any:	City of Barnett
Progress Report	
Action Status:	On Going
Report of Progress:	

Action 2.1.31: Seek funding to mitigate flooding issues in Syracuse, roadway improvements and drainage improvements to all City Streets North.

Action Worksheet	
Name of Jurisdiction:	City of Syracuse
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding (Riverine and Flash)
Problem being Mitigated:	Flooding when there is heavy rain. The accumulation of water backs up on Broadway, Flora, and Douglas Streets primarily and all other streets in City of Syracuse.
	Action or Project
Applicable Goal Statement:	Mitigation Program – Protect Morgan County's assets and populace through cost-effective and tangible mitigation projects whenever financially feasible.
Action/Project Number:	2.1.31
Name of Action or Project:	Syracuse city streets improvements
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services
Action or Project Description:	Make improvements to city streets and water control improvements to limit the flooding events and increase safety.
Estimated Cost:	NA
Benefits:	Make improvements to highways and water control improvements to limit the flooding events and increase safety on the highways and in the community.
	Plan for Implementation
Responsible Organization/Department:	City of Syracuse
Supporting Organization/Department:	
Action/Project Priority:	STAPLEE 14-M
Timeline for Completion:	1-5 Years
Potential Fund Sources:	Mitigation Funding, City Funding
Local Planning Mechanisms to be Used in Implementation, if any:	City of Syracuse
Progress Report	
Action Status:	On Going
Report of Progress:	

Action 2.1.32: Revise local floodplain ordinances to include substantial improvement/damage and address development in the SFHA.

Action Worksheet							
Name of Jurisdiction:	Morgan County, City of Barnett, City of Laurie, City of Stover, City of Versailles, Village of Moscow Mills						
Risk / Vulnerability							
Hazard(s) Addressed:	Flooding						
Problem being Mitigated:	Include substantial improvement and substantial damage determinations.						
Action or Project							
Applicable Goal Statement: Mitigation Program – Protect Morgan County's assets and populace throu cost-effective and tangible mitigation projects whenever financially feasible							
Action/Project Number:	2.1.32						
Name of Action or Project:	Substantial improvement/damage						
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services						
Action or Project Description:	Revise local floodplain ordinances to include substantial improvement/damage and address development in the SFHA.						
Estimated Cost:	NA						
Benefits:	Include more detailed information on how the jurisdictions participating in NFIP implement the substantial improvement/substantial damage provisions of their floodplain management regulations after an event.						
	Plan for Implementation						
Responsible Organization/Department:	Floodplain Managers of Morgan County, City of Barnett, City of Laurie, City of Stover, City of Versailles, Village of Moscow Mills						
Supporting Organization/Department:							
Action/Project Priority:	STAPLEE 14-M						
Timeline for Completion:	1-5 Years						
Potential Fund Sources:	Mitigation Funding, City/County Funding						
Local Planning Mechanisms to be Used in Implementation, if any:	Hazard Mitigation Plan						
Progress Report							
Action Status:	New						
Report of Progress:	New						

Goal 4: Mitigation Public Awareness – Increase public awareness of natural hazards that have the potential to impact Morgan County.

Action 4.1.18: Explore fire wise for the Gravois Fire Protection District. Install two electronic message boards at two fire stations to share with the public the current condition regarding fire hazards based on the weather conditions.

Action Worksheet							
Name of Jurisdiction:	Gravois Fire Protection District						
Risk / Vulnerability							
Hazard(s) Addressed:	Wildfire						
Problem being Mitigated:	Identifying the current conditions locally will help prevent fires and the urban and wildfire hazard.						
Action or Project							
Applicable Goal Statement: Mitigation Public Awareness – Increase public awareness of natural hazare have the potential to impact Morgan County							
Action/Project Number:	4.1.18						
Name of Action or Project:	Gravois Fire Protection District						
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services						
Action or Project Description:	Morgan County will apply for HMA funding for the acquisition project, including preparation of grant application, coordination with homeowners, and securing local match funding.						
Estimated Cost:	\$8,000-\$16,000						
enefits: Providing current conditions regarding safety and burning will potential the number of incidents of fires.							
	Plan for Implementation						
Responsible Organization/Department:	Gravois Fire Protection District						
Supporting Organization/Department:							
Action/Project Priority:	STAPLEE 13-M						
Timeline for Completion:	1-5 Years						
Potential Fund Sources:	Mitigation Funding, Fire Protection District Funding						
Local Planning Mechanisms to be Used in Implementation, if any:Gravois Fire Protection District priorities							
Progress Report							
Action Status:	On Going						
Report of Progress:							

Goal 4: Mitigation Public Awareness – Increase public awareness of natural hazards that have the potential to impact Morgan County

Action 4.1.19: Seek funding to provide communication notification to the citizens of the City of Stover, by installing an electronic billboard and messaging system outside of City Hall.

Action Worksheet							
Name of Jurisdiction:	City of Stover						
Risk / Vulnerability							
Hazard(s) Addressed:	Communication of all potential hazards for community awareness						
Problem being Mitigated:	Early Warning – All Hazards						
Action or Project							
Applicable Goal Statement:	Mitigation Planning – Mitigate the effects of potential natural hazards in Morgan County						
Action/Project Number:	4.1.19						
Name of Action or Project:	City of Stover Communication and Outreach Project						
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services						
Action or Project Description:	Seek funding to provide communication notification to the citizens of the City of Stover, by installing an electronic billboard and messaging system outside o City Hall.						
Estimated Cost:	Less than \$10,000						
Benefits:	Communication is key to the citizens within the City of Stover, being able to warn them of fire hazards, oncoming potential flooding events, training and educational events will help the community pull together in a more prepared manner.						
	Plan for Implementation						
Responsible Organization/Department:	City of Stover						
Supporting Organization/Department:							
Action/Project Priority:	STAPLEE 15-H						
Timeline for Completion:	1-5 Years						
Potential Fund Sources:	Mitigation Funding, City Funding						
Local Planning Mechanisms to be Used in Implementation, if any:	City of Stover						
	Progress Report						
Action Status:	On Going						
Report of Progress:							

Goal 4: Mitigation Public Awareness – Increase public awareness of natural hazards that have the potential to impact Morgan County

Action 4.1.20: Morgan R-1 School District will communicate with the school students, teachers and other faculty in regard to the FEMA 361 Safe Room. Community awareness will also be a part of this marketing and awareness campaign.

Action Worksheet							
Name of Jurisdiction:	Morgan R-1 School District						
Risk / Vulnerability							
Hazard(s) Addressed:	Early Warning Hazards						
Problem being Mitigated:	Community awareness of the FEMA safe room availability during a storm event						
Action or Project							
Applicable Goal Statement: Mitigation Procedures – Encourage continuity of operation of government an emergency services in a disaster.							
Action/Project Number:	4.1.20						
Name of Action or Project:	Community Awareness Campaign						
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services						
Action or Project Description:	Community awareness of the FEMA safe room availability during a storm event						
Estimated Cost:	Little or no cost						
Benefits:	Community awareness of the FEMA safe room availability during a storm even						
	Plan for Implementation						
Responsible Organization/Department: Morgan County R-I School District							
Supporting Organization/Department:							
Action/Project Priority:	STAPLEE 15-H						
Timeline for Completion:	1-5 Years						
Potential Fund Sources:	School District Funds Annual Budget Process						
Local Planning Mechanisms to be Used in Implementation, if any:	School District Funds Annual Budget Process						
Progress Report							
Action Status:	On Going						
Report of Progress:							

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Develop ment	Address Future Develop ment	Continued Compliance with NFIP
	Prevention Public							
1.1	Education Public Awareness Campaign	All	Medium	1	All	✓	✓	✓
	Structure and							
	Infrastructure Projects		1			<u>г г</u>		
1.1.3	FEMA Storm Shelter	Morgan R-I School District	High	1	Storm Event		~	✓
1.1.12	FEMA Storm Shelter	Morgan R-I School District	High	1	Storm Event		~	~
2.1.5	NFIP	Morgan County	Medium	1	Flooding	✓	~	~
2.1.5	NFIP	City of Laurie	Medium	1	Flooding	✓	✓	\checkmark
2.1.5	NFIP	City of Stover	Medium	1	Flooding	~	~	~
2.1.5	NFIP	City of Versailles	Medium	1	Flooding	~	~	~
2.1.5	NFIP	Village of Gravois Mills	Medium	1	Flooding	~	~	~
2.1.22	Hwy 5 and Hwy 52 Improvements	City of Versailles	High	1	Flooding	~	~	
2.1.23	Rabbit Lane Bridge Repair or Replace	Morgan County	Medium	1	Flooding	~	~	~
2.1.24	Whipporwill Bridge Repair or Replace	Morgan County	Medium	1	Flooding	~	~	~
2.1.25	Deer Ridge Drive Repair or Replace	Morgan County	Medium	1	Flooding	~	~	~
2.1.26	Ouachita Road Repair or Replace	Morgan County	Medium	1	Flooding	~	~	~
2.1.27	Proctor Lane Repair or Replace	Morgan County	Medium	1	Flooding	\checkmark	\checkmark	\checkmark
2.1.29	Bridge Repair or Replace	City of Laurie	Medium	1	Flooding	✓	✓	✓
2.1.30	Ditch Improvement	City of Barnett	Medium	1	Flooding	~	✓	
2.1.31	Ditch Improvement	City of Syracuse	Medium	1	Flooding	~	~	
2.1.32	Substantial Improvement/Damage	Morgan County	Medium	1	Flooding	~	~	\checkmark
2.1.32	Substantial Improvement/Damage	City of Barnett	Medium	1	Flooding	~	~	~
2.1.32	Substantial Improvement/Damage	City of Laurie	Medium	1	Flooding	~	~	\checkmark
2.1.32	Substantial Improvement/Damage	City of Stover	Medium	1	Flooding	~	~	\checkmark
2.1.32	Substantial Improvement/Damage	City of Versailles	Medium	1	Flooding	~	~	\checkmark
2.1.32	Substantial Improvement/Damage	Village of Gravois Mills	Medium	1	Flooding	~	~	\checkmark

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Develop ment	Address Future Develop ment	Continued Compliance with NFIP
	Natural Systems Protection		1	1	1			
	Emergency Services					<u> </u>		
1.1.4	Early Warning System	City of Stover	High	1	All	\checkmark	✓	
2.1.28	Fire Alarm System Improvement	Morgan R-II School District	High	1	Fire	~	~	
4.1.18	All Hazard Warning System	Gravois Fire Protection District	Medium	1	All	~	~	~
4.1.19	Messaging System	City of Stover	High	1	All	~	~	
	Education and Outreach							
4.1.20	FEMA Storm Shelter	Morgan R-II School District	High	1	All	~	~	\checkmark