

CONTRIBUTORS

Maries County Hazard Mitigation Planning Committee

The individuals invited to participate in the Maries County hazard mitigation planning committee are as follows:

Jurisdictional Representatives

Name	Title	Department	Jurisdiction/Agency/Organization
Ray Schwartze	Presiding Commissioner	County	Maries County
Doug Drewell	Associate Commissioner	County	Maries County
Ed Fagre	Associate Commissioner	County	Maries County
Rhonda Brewer	County Clerk	County	Maries County
Chris Heitman	Sherriff	Sherriff's Dept.	Maries County
Scott John	EMD	Emergency Management	Maries County
Ashley Wann	Admin.	Health Dept.	Phelps/Maries County Health Dept.
Josh Seaver	Mayor	City Admin.	City of Belle
Frankie Hicks	City Clerk	City Admin.	City of Belle
Jeanette Struempf	Alderman	City Admin.	City of Belle
Ken Stanfield	Alderman	City Admin.	City of Belle
Tony Gieck	Alderman	City Admin.	City of Belle
Courtney Abel	Alderman	City Admin.	City of Belle
Joseph Turnbough	Police Chief	Police Dept.	City of Belle
Dwight Francis	Fire Chief	Fire Dept.	Belle Volunteer Fire Dept.
Darryl Jenkins	Public Works Supt.	Public Works	City of Belle
T.C. James	Mayor	City Admin.	City of Vienna
Sherry James	City Clerk	City Admin.	City of Vienna
Brenda Davis	Alderman	City Admin.	City of Vienna
Carol Miller	Alderman	City Admin.	City of Vienna
Reva Hutchison	Alderman	City Admin.	City of Vienna
Jeremy Smith	Alderman	City Admin.	City of Vienna
Shannon Thompson	Police Chief	Police Dept.	City of Vienna
Shon Westart	Public Works Supt.	Public Works	City of Vienna
Mike Smith	Fire Chief	Fire Dept.	Vienna Fire Prot. Dist.
Mike Prigge	Fire Chief	Fire Dept.	Vichy Vol. Fire Prot. Dist.
Joseph Dunlap	Superintendent	School	Maries County R-I
Dr. Patrick Call	Superintendent	School	Maries County R-II

*Sign in sheets from planning meetings are included in Appendix B.

The individuals invited to represent stakeholders on the Maries County hazard mitigation planning committee are as follows:

Stakeholder Representatives

Name	Title	Agency/Organization
Trina Gunter	Administrator	Maries Manor
Lorri Owens	Administrator	Victorian Place of Vienna
Heather Satterfield	Director of Communications	Intercounty Electric Coop.

Name	Title	Agency/Organization
Carmen Hartwell	General Manager	Gascosage Electric Coop
Dennis Lachowicz	Fire Chief	Dixon Rural Fire Prot. Dist.
Preston Kramer	Engineer	MoDOT
Darrin Bacon	Manager	Rolla National Airport
Roger Kloeppe	Manager of Operations	Three Rivers Electric Coop
Kath Mayne	Administrator	American Red Cross
Karen McHugh	Floodplain Manager	SEMA
Robert Gramke	District Engineer	USACE
Ken Sessa	Regional Environmental Officer	FEMA Region VII
Josh Hundley	Biologist	USFWS
Chris Newbold	Regional Supervisor	MDC
J.R. Flores	State Conservationist	USDA, NRCS
Steve Davis	Lieutenant	Missouri State Highway Patrol
Bill Fallin	General Manager	CenturyLink
-	Reporter	Belle Banner
-	Reporter	Maries County Advocate
-	Reporter	Maries County Gazette
-	-	KKID Radio
-	-	Results Radio
-	-	Sunny 104.5
-	-	KPLA
-	Administrator	Maries Medical Clinic

TABLE OF CONTENTS

Executive Summaryvi

Contributors i

Table of Contents iii

Prerequisites vii

1 Introduction and Planning Process1.1

 1.1 Purpose1.1

 1.2 Background and Scope1.2

 1.3 Plan Organization1.2

 1.4 Planning Process.....1.3

 1.4.1 Multi-Jurisdictional Participation.....1.6

 1.4.2 The Planning Steps.....1.7

2 Planning Area Profile and Capabilities2.1

 2.1 Maries County Planning Area Profile.....2.2

 2.1.2 Geography, Geology, and Topography.....2.3

 2.1.3 Climate.....2.8

 2.1.4 Population/Demographics.....2.8

 2.1.5 History2.12

 2.1.6 Occupations2.12

 2.1.7 Agriculture.....2.13

 2.1.8 FEMA Hazard Mitigation Assistance Grants in Planning Area2.13

 2.2 Jurisdictional Profiles and Mitigation Capabilities2.14

 Unincorporated Maries County2.14

 City of Belle2.17

 City of Vienna.....2.20

 Public School District Profiles and Mitigation Capabilities2.30

 Critical Facilities2.33

3 Risk Assessment	3.1
3.1 Hazard Identification	3.4
3.1.1 Review of Existing Mitigation Plans	3.4
3.1.2 Review Disaster Declaration History.....	3.7
3.1.3 Research Additional Sources.....	3.9
3.1.4 Hazards Identified	3.12
3.1.5 Multi-Jurisdictional Risk Assessment.....	3.14
3.2 Assets at Risk	3.14
3.2.1 Total Exposure of Population and Structures	3.14
3.2.2 Critical and Essential Facilities and Infrastructure	3.15
3.2.3 Other Assets	3.18
3.3 Future Land Use and Development.....	3.21
3.4 Hazard Profiles, Vulnerability, and Problem Statements	3.22
3.4.1 Dam Failure	3.25
3.4.2 Drought	3.40
3.4.3 Earthquakes.....	3.54
3.4.4 Extreme Heat.....	3.70
3.4.5 Wildfires	3.86
3.4.6 Flooding (Flash and River).....	3.99
3.4.7 Land Subsidence/Sinkholes.....	3.126
3.4.8 Thunderstorm/High Winds/Lightning/Hail	3.136
3.4.9 Tornado.....	3.156
3.4.10 Winter Weather/Snow/Ice/Severe Cold	3.168
4 Mitigation Strategy	4.1
4.1 Goals	4.1
4.2 Identification and Analysis of Mitigation Actions	4.2
4.3 Implementation of Mitigation Actions	4.5

5 Plan Maintenance Process	5.1
5.1 Monitoring, Evaluating, and Updating the Plan	5.1
5.1.1 Responsibility for Plan Maintenance	5.1
5.1.2 Plan Maintenance Schedule	5.2
5.1.3 Plan Maintenance Process	5.2
5.2 Incorporation into Existing Planning Mechanisms	5.3
5.3 Continued Public Involvement	5.5
6 Appendix	6.1
A: References	6.2
B: Planning Process	6.6
D: Adoption Resolutions	6.37
E: Critical/Essential Facilities	6.46
F: MDC Wildfire Data Search	6.47

EXECUTIVE SUMMARY

The purpose of hazard mitigation is to reduce or eliminate long-term risk to people and property from hazards. Maries County and participating cities and school districts developed this multi-jurisdictional local hazard mitigation plan update to reduce future losses to the county and its communities and schools resulting from hazard events. The plan is an update of a plan that was approved on August 25, 2014. The original plan was approved in 2006. The plan was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 and to achieve eligibility for the Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance Grant Programs.

The county Multi-Hazard Mitigation Plan is a multi-jurisdictional plan that covers the following 5 jurisdictions that participated in the planning process:

- Maries County
- City of Belle
- City of Vienna
- Maries County R-I School District
- Maries County R-II School District

Maries County and the jurisdictions listed above have developed a multi-jurisdictional Hazard Mitigation Plan. This current planning effort serves as the first plan for the county and its jurisdictions (hereafter referred to as the 2019 Hazard Mitigation Plan).

The plan update process followed a methodology prescribed by FEMA, which began with the formation of a Mitigation Planning Committee (MPC) comprised of representatives from Maries County and participating jurisdictions. The MPC updated the risk assessment that identified and profiled hazards that pose a risk to Maries County and analyzed the vulnerability to these hazards. The MPC also examined the capabilities in place to mitigate them. The MPC determined that the planning area is vulnerable to several hazards that are identified, profiled and analyzed in this plan. Riverine and flash flooding, winter storms, severe thunderstorms/hail/lightning/high winds and tornadoes are among the hazards that historically have had a significant impact.

Based upon the risk assessment, the MPC reviewed goals for reducing risk from hazards. The goals are listed below:

Goal 1: Reduce risks and vulnerabilities of people in hazard-prone areas through current technology, better planning and hazard mitigation activities.

Goal 2: Reduce the potential impact of natural disasters on new and existing properties and infrastructure and the local economy.

Goal 3: Promote education, outreach, research and development programs to improve the knowledge and awareness among the citizens and industry about hazards they may face, their vulnerability to identified hazards, and hazard mitigation alternatives that can reduce their vulnerabilities.

Goal 4: Strengthen communication and coordinate participation between public agencies, citizens, non-profit organizations, business, and industry to create a widespread interest in mitigation.

Goal 5: Establish priorities for reducing risks to the people and their property with emphasis on long-term and maximum benefits to the public rather than short-term benefit of special interests.

Goal 6: Secure resources for investment in hazard mitigation.

To meet the identified goals, the MPC developed recommended mitigation actions, which are detailed in Chapter 4 of this plan. The MPC developed an implementation plan for each action, which identifies priority level, responsible agency, timeline, cost estimate, potential funding sources and progress to date.

PREREQUISITES

44 CFR requirement 201.6(c)(5): The local hazard mitigation plan shall include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan. For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted.

This plan has been reviewed by and adopted with resolutions or other documentation of adoption by all participating jurisdictions and schools districts. The documentation of adoptions is included in Appendix D.

The following jurisdictions participated in the development of this plan and have adopted the multi-jurisdictional plan.

- Maries County
- City of Belle
- City of Vienna
- Maries County R-I School District
- Maries County R-II School District

Model Resolution

RESOLUTION NO. _____

A RESOLUTION TO ADOPT THE MARIES COUNTY MULTI-JURISDICTION NATURAL HAZARDS MITIGATION PLAN

WHEREAS, (Government/District) recognizes the threat that natural hazards pose to people and property within our community; and

WHEREAS, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

WHEREAS, the U.S. Congress passed the Disaster Mitigation Act of 2000 emphasizing the need for pre-disaster mitigation of potential hazards and made available hazard mitigation grants to state and local governments; and

WHEREAS, an adopted Multi-Jurisdiction Natural Hazards Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre-and post-disaster mitigation grant programs; and

WHEREAS, (Government/District) fully participated in the FEMA prescribed mitigation planning process to prepare this Mitigation Plan; and

WHEREAS, the Missouri State Emergency Management Agency and Federal Emergency Management Agency officials have reviewed the Maries County Multi-Jurisdictional Natural Hazards Mitigation Plan and approved it contingent upon this official adoption of the participating governing body; and

WHEREAS, (Government/District) desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Maries County Multi-Jurisdiction Natural Hazards Mitigation Plan; and

WHEREAS, adoption by the governing body of (Government/District) demonstrates the jurisdiction's commitment to fulfilling the mitigation goals and objectives outlined in this Mitigation Plan; and

WHEREAS, adoption of this legitimizes the plan and authorizes responsible agencies to carry out their responsibilities under the plan;

NOW, THEREFORE BE IT RESOLVED, that (Government/District) adopts the Maries County Multi-Jurisdictional Natural Hazards Mitigation Plan as an official plan and will submit this Adoption Resolution to the Missouri Emergency Management Agency and the Federal Emergency Management Agency officials to enable the plan's final approval.

Certifying Official

Date

Witness

Date