Taney County Missouri 2022 Multi-Jurisdictional Natural Hazard Mitigation Plan



Prepared by:





September 19, 2022

James Remillard, Director State Emergency Management Agency P. O. Box 116 Jefferson City, Missouri 65102

Subject: Approval of the Taney County Local Mitigation Plan

Dear James Remillard:

In accordance with applicable¹ laws, regulations and policy, the Risk Analysis Branch of FEMA Region 7's Mitigation Division has approved the Taney County local mitigation plan. The attached Local Mitigation Plan Review Tool lists participants receiving approval that have submitted required adoption documentation.

The approval period for this plan is from August 25, 2022, through August 24, 2027. The same official plan expiration date applies to all participating jurisdictions, regardless of adoption date.

An approved mitigation plan is one of the conditions for applying for and receiving FEMA mitigation grants from the following programs:

- Hazard Mitigation Grant Program
- Building Resilient Infrastructure and Communities
- Flood Mitigation Assistance

Having an approved mitigation plan does not mean that mitigation grant funding will be awarded. Specific application and eligibility requirements for the programs listed above can be found in each FEMA grant program's respective policies and annual Notice of Funding Opportunities, as applicable.

To avoid a lapse plan, the next plan update must be approved by FEMA before the end of the approval period. Remember to allow sufficient time to secure funding as well as for the update process, including the review and approval process. Please include time for any revisions, if needed, and for the jurisdictions to formally adopt the plan after the review, if not adopted prior to submission. This will enable them to remain eligible to apply for and receive funding from FEMA's mitigation grant programs with a mitigation plan requirement. Local governments, including special districts, with a plan status of "Approvable Pending Adoption" are not eligible for FEMA's mitigation grant programs with a mitigation plan requirement.

¹ Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and National Dam Safety Program Act, as amended; 44 CFR Part 201, Mitigation Planning; and Local Mitigation Plan Review Guide.

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We look forward to discussing options for implementing this mitigation plan. If you should have any questions or concerns, please contact Joe Chandler, Planning Team Lead, at (816) 808-9016 or joe.chandler@fema.dhs.gov.

Sincerely,

Catherine R. Sanders, Director Mitigation Division

Attachment: Local Mitigation Plan Review Tool

Taney County Hazard Mitigation Planning Committee

Jurisdictional Representatives

Name	Title	Jurisdiction/Organization
Chris Berndt	EMD	Taney County
Melissa Duckworth	Emergency Management Assistant	Taney County
Scott Starrett	Planning and Zoning Administrator	Taney County
Presley Cozort	Planning and Zoning Technician	Taney County
Ben Bonner	Division Chief/EMA	City of Branson
Jacob Phillips	Planner	City of Branson
Roy Swarms	Building Division Supervisor	City of Branson
Ted Martin	EMD/Fire Chief	City of Branson
Angela Leist	Finance Officer	City of Forsyth
Nathan Bower	EMD/Fire Chief	City of Forsyth
William Mattegat	Building Inspector	City of Forsyth
Kathy Knight	Building Official	City of Hollister
Rick Ziegenfuss	City Administrator	City of Hollister
Gary Linegar	Public Works Supervisor	City of Merriam Woods
Nicole Rodman	City Clerk	City of Merriam Woods
Jennifer Jackson	Administrative Assistant	City of Rockaway Beach
James Felton	Director of Public Works	Village of Bull Creek
Aaron Durso	Clerk	Village of Bull Creek
Chip Arnett	Director of Operations	Branson R-IV School District
Grant Boyer	Assistant Superintendent	Forsyth R-III School District
Sean Woods	Assistant Superintendent	Hollister R-V School District
Carless Osbourn	Superintendent	Kirbyville R-VI School District
Tara Roberts	Superintendent	Taneyville R-II School District
Lyn Wieneke	Administrative Assistant	Taney County Regional Sewer District
Chris Berndt	Fire Chief	Western Taney County Fire Protection District

^{*}Local Taney County stakeholders were invited to participate in the update process; however, none of them chose to participate.

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EXECUTIVE SUMMARY

The purpose of hazard mitigation is to reduce or eliminate long-term risk to people and property from hazards. Taney County and the participating jurisdictions and school/special districts developed this multi-jurisdictional local hazard mitigation plan update to reduce future losses from hazard events to the County and its communities and school/special districts. The plan is an update of a plan that was approved on November 21, 2017. The plan and the update were prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 to result in eligibility for the Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance Grant Programs. The Taney County Hazard Mitigation Plan is a multi-jurisdictional plan that covers the following jurisdictions that participated in the planning process:

- Taney County
- City of Branson
- City of Forsyth
- City of Hollister
- City of Merriam Woods
- City of Rockaway Beach
- Village of Bull Creek
- Branson R-IV School District
- Forsyth R-II School District
- Hollister R-V School District
- Kirbyville R-VI School District
- Taneyville R-II School District
- Taney County Regional Sewer District
- Western Taney County Fire Protection District

Local jurisdictions that were invited to participate but did not include:

- Village of Kirbyville
- Village of Taneyville
- Bradleyville R-I School District
- Mark Twain R-VII School District
- Ozarks Technical Community College Table Rock Campus
- Central Taney County Fire Protection District
- Protem Fire Protection District
- Point Lookout Fire Protection District
- Bradleyville Rural Fire Department
- Taney County Ambulance District

When the future five-year update is developed for this plan, these districts will again be invited to participate.

Taney County and the entities listed above developed a Multi-Jurisdictional Hazard Mitigation Plan that was approved by FEMA on November 21. 2017 (hereafter referred to as the 2017 Hazard Mitigation Plan). This current planning effort serves to update that previously approved plan.

The plan update process followed a methodology in accordance with FEMA guidance, which began with the formation of a Mitigation Planning Committee (MPC) comprised of representatives from

Taney County and the participating jurisdictions. The MPC updated the risk assessment that identified and profiled hazards that pose a risk to Taney County and analyzed jurisdictional vulnerability to these hazards. The MPC also examined the capabilities in place to mitigate the hazard damages, with emphasis on changes that have occurred since the previously approved plan was adopted. 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 updated goals for reducing risk from hazards. The goals are listed below:

- 1. Protect the lives and livelihoods of all citizens
- 2. Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
- 3. Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster

To advance the identified goals, the MPC developed recommended mitigation actions, as summarized in the table on the following pages. The MPC developed an implementation plan for each action, which identifies priority level, background information, ideas for implementation, responsible agency, timeline, cost estimate, potential funding sources, and more. These additional details are provided in Chapter 4.

Table I. Mitigation Action Matrix

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
	Prevention Public Education							
2.4	Update Codes	Taney County	34	2	All	X	X	Х
2.5	NFIP Requirement Enforcement	Taney County	43	2	Flooding	Х	Х	Х
2.6	Waterway Maintenance	Taney County	36	2	Flooding	Х	X	Х
3.4	Hazard Mitigation in Plans	Taney County	37	3	All			
3.7	GIS Development	Taney County	40	3	All			
1.3	Fire-Resistant Construction	City of Branson	29	1	Wildfire		Х	
2.5	Update Codes	City of Branson	37	2	Flooding, thunderstorm, wildfire	Х	Х	Х
2.6	NFIP Requirement Enforcement	City of Branson	34	2	Flooding	X	X	X
3.1	Hazard Mitigation in Plans	City of Branson	31	3	Flooding			
3.8	GIS Development	City of Branson	37	3	All			
1.2	Fire-Resistant Construction	City of Forsyth	33	1	Drought, extreme temps, wildfire		Х	
2.4	Update Codes	City of Forsyth	39	2	All	X	Х	Х
2.5	Runoff Ordinance Enforcement	City of Forsyth	33	2	Flooding	X	Х	Х
2.6	Waterway Maintenance	City of Forsyth	29	2	Flooding	X	Х	Х
3.5	Hazard Mitigation in Plans	City of Forsyth	34	3	Drought, flooding			
3.8	GIS Development	City of Forsyth	29	3	All			
1.2	Fire-Resistant Construction	City of Hollister	30	1	Drought, extreme temperatures, wildfire		Х	
2.4	Update Codes	City of Hollister	31	2	All	Х	Х	Х
2.5	NFIP Requirement Enforcement	City of Hollister	31	2	Flooding	Х	Х	Х
3.3	Hazard Mitigation in Plans	City of Hollister	27	3	All			
1.2	Fire-Resistant Construction	City of Merriam Woods	38	1	Wildfire		Х	
2.4	Update Codes	City of Merriam Woods	32	2	All	X	Х	Х

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
2.5	Runoff Ordinance Enforcement	City of Merriam Woods	24	2	Thunderstorm, flooding	Х	Х	Х
2.6	NFIP Requirement Enforcement	City of Merriam Woods	28	2	Flooding	Х	Х	Х
2.7	Waterway Maintenance	City of Merriam Woods	28	2	Flooding	Х	Х	X
3.6	Hazard Mitigation in Plans	City of Merriam Woods	33	3	All			
3.9	GIS Development	City of Merriam Woods	28	3	All			
1.2	Fire-Resistant Construction	City of Rockaway Beach	47	1	Wildfire		X	
2.2	Update Codes	City of Rockaway Beach	38	2	Earthquake, thunderstorm, tornado, wildfire	Х	Х	Х
2.3	NFIP Requirement Enforcement	City of Rockaway Beach	43	3	Flooding	Х	Х	Х
1.9	Water Conservation	Village of Bull Creek	36	1	drought			
1.10	Building Codes	Village of Bull Creek	26	1	All	Х	Х	X
2.2	NFIP Requirement Enforcement	Village of Bull Creek	32	2	Flooding	X	X	X
2.3	Waterway Maintenance	Village of Bull Creek	33	2	Flooding	Х	Х	X
2.4	Vegetation Maintenance	Village of Bull Creek	29	2	Flooding	Х	Х	X
3.3	Hazard Mitigation in Plans	Village of Bull Creek	35	3	All			
3.6	GIS Development	Village of Bull Creek	31	3	All			
3.3	GIS Development	Taney County Regional Sewer	43	3	Flooding			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
1.2	Fire-Resistant Construction	Western Taney Fire Protection	40	1	Wildfire		X	
	Structure and Infrastructure Projects							
1.6	New Safe Rooms	Taney County	30	1	Tornado, thunderstorm		Х	
2.1	Flood Mitigation	Taney County	36	2	Flooding	X	X	X
1.1	Safe Room Construction	City of Branson	28	1	Tornado, thunderstorm		Х	
1.5	Siren Maintenance	City of Branson	32	1	Thunderstorm, tornado	X	Х	
1.8	New Safe Rooms	City of Branson	23	1	Thunderstorm, tornado		Х	
2.1	Flood Mitigation	City of Branson	38	2	Flooding	Х	Х	Х
2.3	Wastewater Treatment Resilience	City of Branson	35	2	flooding			
1.4	Siren Maintenance	City of Forsyth	42	1	All	X	X	
1.8	New Safe Rooms	City of Forsyth	35	1	Thunderstorm, tornado		X	
1.12	Safe Room Construction	City of Forsyth	36	1	Severe thunderstorm, tornado		X	
1.13	Generator Installation	City of Forsyth	28	1	Thunderstorm, tornado	Х		
2.1	Flood Mitigation	City of Forsyth	31	2	Flooding	Х	Х	Х
1.6	New Safe Rooms	City of Hollister	29	1	Thunderstorm, tornado		Х	
2.1	Flood Mitigation	City of Hollister	31	2	Flooding	Х	Х	Х
2.3	Wastewater Treatment Resilience	City of Hollister	28	2	Drought, flooding			
1.5	New Safe Rooms	City of Merriam Woods	25	1	Tornado, thunderstorm		Х	
2.1	Flood Mitigation	City of Merriam Woods	14	2	Flooding	Х	Х	Х

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
1.4	Siren Maintenance	City of Rockaway Beach	47	1	All	Х	Х	
2.1	Flood Mitigation	City of Rockaway Beach	43	2	Flooding	X	Х	X
1.5	New Safe Rooms	Village of Bull Creek	21	1	Tornado, thunderstorm		Х	
2.1	Flood Mitigation	Village of Bull Creek	27	2	Flooding	X	X	X
3.7	Village Hall Generator	Village of Bull Creek	43	3	Thunderstorm, tornado	X		
3.8	Water Tower Generator	Village of Bull Creek	39	3	Thunderstorm, tornado	Х		
1.3	New Safe Rooms	Branson R-IV	38	1	All		X	
1.3	New Safe Rooms	Forsyth R-II	35	1	All		X	
1.4	Safe Place Awareness	Forsyth R-II	37	1	Tornado, thunderstorm			
1.3	New Safe Rooms	Hollister R-V	19	1	Tornado, thunderstorm		Х	
1.5	New Safe Room	Kirbyville R-VI	32	1	Tornado, thunderstorm		Х	
1.4	Safe Room Construction	Taneyville R-II	33	1	Tornado, thunderstorm		Х	
2.1	Wastewater Treatment Resilience	Taney County Regional Sewer	35	2	Dam failure, flooding, drought	Х		
3.5	Backup Generator	Western Taney County Fire Protection District	35	3	Flooding, thunderstorm	Х		
	Natural Systems Protection							
2.5	Streambank Restoration	Village of Bull Creek	30	2	Flooding	Х		X
	Emergency Services							

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
1.3	NOAA Radio Purchase	Taney County	30	1	Tornado, thunderstorm, flooding, winter weather	х		
2.3	Dam Emergency Partnership	Taney County	37	2	Dam failure, flood	X		
3.3	Debris Disposal	Taney County	31	3	Tornado, thunderstorm, winter weather, earthquake, dam failure			
2.4	Dam Emergency Partnership	City of Branson	32	2	Flooding, dam failure	Х		
3.3	Water Rescue	City of Branson	29	3	flooding			
3.4	Debris Disposal	City of Branson	28	3	Thunderstorm, flooding			
1.5	NOAA Radio Purchase	City of Forsyth	34	1	All			
1.14	Water Rescue Response	City of Forsyth	33	1	Flooding			
2.3	Dam Emergency Partnership	City of Forsyth	44	2	Dam failure	X		
2.7	Wildfire Risk Assessment	City of Forsyth	46	2	Wildfire			
2.8	Wildfire Response	City of Forsyth	44	2	Wildfire			
2.9	Firefighter Personnel	City of Forsyth	41	2	Wildfire			
3.4	Debris Disposal	City of Forsyth	32	3	Wildfire, thunderstorm			
3.5	Debris Disposal	City of Merriam Woods	30	3	Tornado, thunderstorm, winter weather, earthquake, dam failure			
3.3	Water Rescue	Western Taney Fire Protection	39	3	Flooding			
	Education and Outreach							
1.1	Awareness Program	Taney County	38	1	all			
1.2	Community Preparedness	Taney County	33	1	all			
1.4	Citizen NOAA Radios	Taney County	37	1	Tornado, thunderstorm, flood, winter weather			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
1.5	Mobile Hazard Alert	Taney County	36	1	Tornado, thunderstorm, flood, winter weather, drought, heat			
1.7	Safe Place Awareness	Taney County	38	1	Tornado, thunderstorm			
1.8	Safe Room Education	Taney County	35	1	Tornado, thunderstorm			
1.9	Heating and Cooling Centers	Taney County	27	1	Extreme temperatures			
2.2	Utility Relocation	Taney County	36	2	Tornado, thunderstorm, winter weather	X		
3.1	NIMS Training	Taney County	34	3	All			
3.2	911 Addressing	Taney County	46	3	All			
3.5	Funding Identification	Taney County	37	3	All			
3.6	Infrastructure Coordination	Taney County	44	3	Flooding	Х	Х	X
1.2	Awareness Program	City of Branson	34	1	Flooding, thunderstorm, winter weather			
1.4	Citizen Preparedness	City of Branson	26	1	All			
1.6	Citizen NOAA Radios	City of Branson	32	1	Thunderstorm, tornado, winter weather, flooding			
1.7	Mobile Hazard Alert	City of Branson	32	1	All			
1.9	Safe Place Awareness	City of Branson	29	1	Thunderstorm, tornado			
1.10	Safe Room Education	City of Branson	28	1	Thunderstorm, tornado			
1.11	Heating and Cooling Centers	City of Branson	22	1	Extreme temperatures			
2.2	Utility Relocation	City of Branson	31	2	Thunderstorm, tornado, winter weather	Х		
3.1	NIMS Training	City of Branson	27	3	All			
3.2	911 Addressing	City of Branson	31	3	All			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
3.6	Funding Identification	City of Branson	40	3	All			
3.7	Infrastructure Coordination	City of Branson	29	3	Flooding	Х	Х	Х
1.1	Awareness Program	City of Forsyth	35	1	All			
1.6	Citizen NOAA Radios	City of Forsyth	31	1	All			
1.7	Mobile Hazard Alert	City of Forsyth	38	1	All			
1.9	Safe Place Awareness	City of Forsyth	38	1	All			
1.10	Safe Room Education	City of Forsyth	33	1	All			
1.11	Heating and Cooling Centers	City of Forsyth	33	1	Extreme temperatures			
1.15	Smoke Alarm	City of Forsyth	43	1	Wildfire			
2.2	Utility Relocation	City of Forsyth	35	2	All	X		
3.1	NIMS Training	City of Forsyth	37	3	All			
3.2	911 Addressing	City of Forsyth	46	3	All			
3.3	Water Inventory	City of Forsyth	39	3	Drought, wildfire			
3.6	Funding Identification	City of Forsyth	31	3	All			
3.7	Infrastructure Coordination	City of Forsyth	30	3	Flooding	X	Х	Х
1.1	Awareness Program	City of Hollister	36	1	All			
1.3	Citizen Preparedness	City of Hollister	27	1	All			
1.4	Citizen NOAA Radios	City of Hollister	34	1	All			
1.5	Mobile Hazard Alert	City of Hollister	35	1	All			
1.7	Safe Place Awareness	City of Hollister	26	1	Thunderstorm, tornado			
1.8	Safe Room Education	City of Hollister	29	1	Thunderstorm, tornado			
2.2	Utility Relocation	City of Hollister	25	2	All			
3.1	NIMS Training	City of Hollister	25	3	All			
3.2	911 Addressing	City of Hollister	35	3	All			
3.4	Infrastructure Coordination	City of Hollister	29	3	Flooding	Х	Х	Х
1.1	Awareness Program	City of Merriam Woods	14	1	All			
1.2	Citizen Preparedness	City of Merriam Woods	24	1	All			
1.4	Mobile Hazard Alert	City of Merriam Woods	36	1	Tornado, thunderstorm, flooding, winter weather, drought			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
1.6	Safe Place Awareness	City of Merriam Woods	25	1	Tornado, thunderstorm			
1.7	Safe Room Education	City of Merriam Woods	33	1	Tornado			
2.2	Utility Relocation	City of Merriam Woods	35	2	Tornado, thunderstorm, winter weather			
2.3	Dam Emergency Partnership	City of Merriam Woods	24	2	Dam failure			
3.1	NIMS Training	City of Merriam Woods	29	2	All			
3.2	911 Addressing	City of Merriam Woods	27	27	All			
3.3	Water Inventory	City of Merriam Woods	29	3	Wildfire, drought			
3.4	Water Rescue	City of Merriam Woods	26	3	flooding			
3.7	Funding Identification	City of Merriam Woods	30	3	All			
3.8	Infrastructure Coordination	City of Merriam Woods	29	3	Flood	Х	Х	Х
1.1	Awareness Program	City of Rockaway Beach	37	1	All			
1.3	Citizen Preparedness	City of Rockaway Beach	43	1	All			
1.5	Mobile Hazard Alert	City of Rockaway Beach	44	1	All			
1.6	Safe Place Awareness	City of Rockaway Beach	47	1	Thunderstorm, tornado			
1.7	Safe Room Education	City of Rockaway Beach	46	1	Tornado, thunderstorm			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
3.1	911 Addressing	City of Rockaway Beach	44	3	All			
1.1	Awareness Program	Village of Bull Creek	32	1	Flood, thunderstorm			
1.2	Citizen Preparedness	Village of Bull Creek	26	1	Flood, thunderstorm			
1.3	NOAA Radio Purchase	Village of Bull Creek	38	1	Flood, thunderstorm			
1.4	Mobile Hazard Alert	Village of Bull Creek	25	1	Flood, thunderstorm			
1.6	Safe Place Awareness	Village of Bull Creek	23	1	Tornado, thunderstorm			
1.7	Safe Room Education	Village of Bull Creek	43	1	Tornado, thunderstorm			
1.8	Heating and Cooling Centers	Village of Bull Creek	23	1	Extreme temperature			
3.1	NIMS Training	Village of Bull Creek	23	3	All			
3.2	911 Addressing	Village of Bull Creek	34	3	All			
3.5	Funding Identification	Village of Bull Creek	24	3	All			
3.6	Infrastructure Coordination	Village of Bull Creek	29	3	Flooding	Х	Х	Х
1.1	Awareness Program	Branson R-IV	34	1	All			
1.2	Mitigation Education	Branson R-IV	25	1	All			
3.1	NIMS Training	Branson R-IV	20	3	All			
3.2	Funding Identification	Branson R-IV	38	3	All			
1.1	Awareness Program	Forsyth R-II	34	1	All			
1.2	Mitigation Education	Forsyth R-II	34	1	All			
2.1	Dam Emergency Partnership	Forsyth R-II	36	2	Dam failure, flooding			
3.1	NIMS Training	Forsyth R-II	30	3	All			
3.2	Funding Identification	Forsyth R-II	37	3	All			
1.1	Awareness Program	Hollister R-V	36	1	All			
1.2	Mitigation Education	Hollister R-V	41	1	All			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
1.4	Safe Place Awareness	Hollister R-V	43	1	All			
1.5	NOAA Radio Purchase	Hollister R-V	48	1	Tornado, thunderstorm			
3.1	NIMS Training	Hollister R-V	15	3	All			
3.2	Funding Identification	Hollister R-V	13	3	All			
1.1	Awareness Program	Kirbyville R-VI	34	1	All			
1.2	Mitigation Education	Kirbyville R-VI	34	1	All			
1.3	NOAA Radio Purchase	Kirbyville R-VI	37	1	Tornado, thunderstorm, flooding, winter weather, drought, extreme temps			
1.4	Mobile Hazard Alert	Kirbyville R-VI	31	1	All			
2.1	Dam Emergency Partnership	Kirbyville R-VI	32	2	Dam failure			
3.1	NIMS Training	Kirbyville R-VI	31	3	All			
3.2	Funding Identification	Kirbyville R-VI	36	3	All			
1.1	Awareness Program	Taneyville R-II	29	1	Flooding, thunderstorm, tornado, winter weather			
1.2	Mitigation Education	Taneyville R-II	35	1	Flooding, thunderstorm, tornado, winter weather			
1.3	Safe Place Awareness	Taneyville R-II	40	1	Thunderstorm, tornado			
3.1	NIMS Training	Taneyville R-II	34	3	Flooding, thunderstorm, tornado, winter weather			
3.2	Funding Identification	Taneyville R-II	35	3	Flooding, thunderstorm, tornado, winter weather			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
1.1	Awareness Program	Taney County Regional Sewer	42	1	Tornado, flooding, thunderstorm, winter weather			
1.2	NOAA Radio Purchase	Taney County Regional Sewer	36	1	All			
1.3	Citizen NOAA Radio	Taney County Regional Sewer	34	1	All			
1.4	Mobile Hazard Alert	Taney County Regional Sewer	37	1	All			
1.5	Safe Place Awareness	Taney County Regional Sewer	35	1	Thunderstorm, tornado			
2.2	Dam Emergency Partnership	Taney County Regional Sewer	45	2	Dam failure			
3.1	NIMS Training	Taney County Regional Sewer	42	3	All			
3.2	Funding Identification	Taney County Regional Sewer	35	3	All			
1.1	Awareness Program	Western Taney Fire Protection	40	1	All			
1.3	NOAA Radio Purchase	Western Taney Fire Protection	38	1	Tornado, thunderstorm, flooding, winter weather, drought, extreme temps			
1.4	Dam Emergency Partnership	Western Taney Fire Protection	41	1	Dam failure			
3.1	NIMS Training	Western Taney Fire Protection	40	3	All			
3.2	Water Inventory	Western Taney Fire Protection	41	3	Wildfire, drought			
3.4	Funding Identification	Western Taney Fire Protection	40	3	All			

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/special districts. The documentation of each adoption is included in Appendix D, and a model resolution is included on the following page.

The following jurisdictions participated in the development of this plan and have adopted the multijurisdictional plan:

- Taney County
- City of Branson
- City of Forsyth
- · City of Hollister
- City of Merriam Woods
- City of Rockaway Beach
- Village of Bull Creek
- Branson R-IV School District
- Forsyth R-II School District
- Hollister R-V School District
- Kirbyville R-VI School District
- Taneyville R-II School District
- Taney County Regional Sewer District
- Western Taney County Fire Protection District

Model Resolution

By (Sig.):

Print name:

Model Nesolution
(LOCAL GOVERNING BODY/SCHOOL DISTRICT), Missouri RESOLUTION NO
A RESOLUTION OF THE (<i>LOCAL GOVERNING BODY/SCHOOL DISTRICT</i>) ADOPTING THE (<i>PLAN NAME</i>)
WHEREAS the (<i>local governing body/school district</i>) recognizes the threat that natural hazards pose to people and property within the (local governing body/school district); and
WHEREAS the (<i>local governing body/school district</i>) has participated in the preparation of a multi- jurisdictional local hazard mitigation plan, hereby known as the (<i>plan name</i>), hereafter referred to as the <i>Plan</i> , in accordance with the Disaster Mitigation Act of 2000; and
WHEREAS the <i>Plan</i> identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the <i>(local governing body/school district)</i> from the impacts of future hazards and disasters; and
WHEREAS the (<i>local governing body</i>) recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the (<i>local governing body/school district</i>) will endeavor to integrate the <i>Plan</i> into the comprehensive planning process; and
WHEREAS adoption by the (<i>local governing body/school district</i>) demonstrates their commitment to hazard mitigation and achieving the goals outlined in the <i>Plan</i> .
NOW THEREFORE, BE IT RESOLVED BY THE ($LOCAL\ GOVERNMENT/SCHOOL\ DISTRICT$), in the State of Missouri, THAT:
In accordance with (local rule for adopting resolutions), the (local governing body/school district) adopts the final FEMA-approved Plan.
ADOPTED by a vote ofin favor andagainst, andabstaining, thisday of,
By (Sig): Print name:
ATTEST: By (Sig.): Print name:
APPROVED AS TO FORM:

1 INTRODUCTION AND PLANNING PROCESS

L	INTR	ODUCTION AND PLANNING PROCESS	1.1
	1.1	Purpose	1.1
	1.2	Background and Scope	
		Plan Organization	
		Planning Process	
		Multi-JurisdictionalParticipation	
		The Planning Steps	

1.1 Purpose

Hazard Mitigation is the process of preparing for and taking action in order to reduce the long-term risk of natural disasters to financial and human consequences. Mitigation actions may be implemented prior to, during, or after a hazard event. However, it has been demonstrated that hazard mitigation is most effective when based on an inclusive, comprehensive, long-term plan that is developed before a disaster occurs (https://www.fema.gov/grants/mitigation).

By participating in the planning process and meeting the necessary requirements to do so, communities, school districts, and other special districts become eligible to apply for mitigation grant funding. FEMA has implemented the various hazard mitigation provisions through the Code of Federal Regulations (CFR) at 44 CFR Part 201. The CFR provisions set forth the mitigation plan requirements for local and tribal governments as a condition of receiving FEMA hazard mitigation assistance. Local governments, schools, or other publicly funded districts that do not participate or adopt a hazard mitigation plan will not be eligible to apply for grants as stated under 44 CFR §201.6. Section 322 of the Robert T. Stafford Relief and Emergency Assistance Act (P.L. 93-288), as amended by the Disaster Mitigation Act of 2000 (DMA) (P.L. 106-390), provides for States, Tribes and local governments to undertake a risk-based approach to reducing risks to natural hazards through mitigation planning.

1.2 BACKGROUND AND SCOPE

As required by 44 CFR §201.6(d)(3), a local jurisdiction must review and revise its plan to reflect changes in development, progress in local mitigation efforts and changes in priorities, and resubmit it for approval every five (5) years in order to continue to be eligible for mitigation project grant funding. The 2022 Taney County Multi-Jurisdictional Natural Hazard Mitigation Plan, from here on referred to as the Plan, is a revision of the previous five-year update adopted on November 21, 2017.

The Plan is a major rewrite of the 2017 Plan and reflects changes in priorities and development, and the continued commitment of local governments to mitigate the impact of natural hazards in Taney County. Local participating jurisdictions include:

- Taney County
- City of Branson
- City of Forsyth
- City of Hollister

- City of Merriam Woods
- City of Rockaway Beach
- Village of Bull Creek
- Branson R-IV School District
- Forsyth R-II School District
- Hollister R-V School District
- Kirbyville R-VI School District
- Taneyville R-II School District
- Taney County Regional Sewer District
- Western Taney County Fire Protection District

Local jurisdictions that were invited to participate but did not include:

- Village of Kirbyville
- Village of Taneyville
- Bradleyville R-I School District
- Mark Twain R-VII School District
- Ozarks Technical Community College Table Rock Campus
- Central Taney County Fire Protection District
- Protem Fire Protection District
- Point Lookout Fire Protection District
- Bradleyville Rural Fire Department
- Taney County Ambulance District

All jurisdictions received letter and email communications notifying representatives of upcoming meetings and participation requirements.

The local mitigation plan is the representation of the jurisdictions' commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. Information in the Plan will be used to help guide and coordinate mitigation activities and decisions for local land use policy in the future.

1.3 PLAN ORGANIZATION

The Plan is organized into five chapters. The format of the Plan was changed to conform to the 1.3 local hazard mitigation plan outline template released by the Missouri State Emergency Management Agency (SEMA) in September 2017. The Plan chapters include:

- Chapter 0: Executive Summary
- Chapter 1: Introduction and Planning Process
- Chapter 2: Planning Area Profile and Capabilities
- Chapter 3: Risk Assessment
- Chapter 4: Mitigation Strategy
- Chapter 5: Plan Implementation and Maintenance
- Appendices

Table 1.1 summarizes the changes made in the Plan by chapter.

Table 1.1. Changes Made in Plan Update

Plan Section	Summary of Updates		
Chapter 1 - Introduction and Planning Process	 Updated list of participating jurisdictions and stakeholders Updated list of mitigation planning committee members Removed Department column from Table 1.2 Added Table 1.3 – MPC Capability with Six Mitigation Categories An online community survey was conducted regarding hazard threats and mitigation activities in the community Reworked the goals 		
Chapter 2 - Planning Area Profile and Capabilities	 Updated demographics information Incorporated revisions to community profiles as draft sections were reviewed by local officials Added a table for FEMA PA Grants Added a summary table for Special District Mitigation Capabilities 		
Chapter 3 - Risk Assessment	 Changed the order of the hazards Extreme heat and extreme cold were combined into extreme temperatures Added school and special district development since previous update Added maps for every dam Added insurance payment data for multiple hazards Added community comments section for every hazard 		
Chapter 4 - Mitigation Strategy	 Eliminated the objectives and reworded the goals Reformatted the STAPLEE and action worksheets Action/project number was reworked to reflect the change in goal numbering Added Mitigation Action Matrix table 		
Chapter 5 - Plan Implementation and Maintenance	No significant changes were made		

1.4 PLANNING PROCESS

44 CFR Requirement 201.6(c)(1): [The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

The Southwest Missouri Council of Governments (SMCOG) was contracted to facilitate the plan development process. SMCOG staff met with the Taney County EMD during an initial scoping meeting to develop contact information for the area stakeholders and local jurisdiction representatives to establish the Mitigation Planning Committee (MPC). Meeting locations and schedules were discussed, and the most effective way to inform and include the public was

determined. Also discussed was previous plan maintenance and any updates made since 2017. It was determined that the document had not been officially updated.

The planning process included the kick-off meeting and four subsequent MPC meetings. SMCOG staff were responsible for producing the draft and final plan update in a FEMA-approvable document and coordinating with the SEMA and FEMA plan reviewers. Specific information about agenda items for the MPC meetings are presented in **Section 1.4.2**. SMCOG also assisted in soliciting public involvement in the planning process by creating a community survey. Notification of the MPC meetings on January 18, 2022, February 15, 2022, March 22, 2022, April 19, 2022, and May 17, 2022, were sent via mail and email to all jurisdictions within the county. Meeting dates were posted on the SMCOG website in advance. Drafts of the Plan were also posted on the website for public comment during the drafting of the Plan and prior to the Plan being submitted for approval. Appendix B provides documentation of the planning process including public involvement solicitations and meeting notices.

The preliminary draft of the plan was sent to all committee members for review on Friday, May 13, 2022. It was also posted on the SMCOG website. Input from city and county officials was solicited through distribution of drafts of plan elements for discussion and review at scheduled meetings and other communications with individual community representatives and elected officials.

A complete listing of agencies invited to participate in the planning process and what meetings they were invited to attend is included in Appendix B.

Table 1.2 shows the MPC members and the entities they represent, along with their titles.

 Table 1.2.
 Mitigation Planning Committee Jurisdictional Representatives

Name	Title	Jurisdiction/Organization
Chris Berndt	EMD	Taney County
Melissa Duckworth	Emergency Management Assistant	Taney County
Scott Starrett	Planning and Zoning Administrator	Taney County
Presley Cozort	Planning and Zoning Technician	Taney County
Ben Bonner	Division Chief/EMA	City of Branson
Jacob Phillips	Planner	City of Branson
Roy Swarms	Building Division Supervisor	City of Branson
Ted Martin	EMD/Fire Chief	City of Branson
Angela Leist	Finance Officer	City of Forsyth
Nathan Bower	EMD/Fire Chief	City of Forsyth
William Mattegat	Building Inspector	City of Forsyth
Kathy Knight	Building Official	City of Hollister
Rick Ziegenfuss	City Administrator	City of Hollister
Gary Linegar	Public Works Supervisor	City of Merriam Woods
Nicole Rodman	City Clerk	City of Merriam Woods
Jennifer Jackson	Administrative Assistant	City of Rockaway Beach
James Felton	Director of Public Works	Village of Bull Creek
Aaron Durso	Clerk	Village of Bull Creek
Chip Arnett	Director of Operations	Branson R-IV School District
Grant Boyer	Assistant Superintendent	Forsyth R-III School District
Sean Woods	Assistant Superintendent	Hollister R-V School District
Carless Osbourn	Superintendent	Kirbyville R-VI School District
Tara Roberts	Superintendent	Taneyville R-II School District
Lyn Wieneke	Administrative Assistant	Taney County Regional Sewer District
Chris Berndt	Fire Chief	Western Taney County Fire Protection District

Table 1.3. MPC Capability with Six Mitigation Categories

		Structu					
Community Department/Office	Preventive Measures	Property Protection	Structural Flood Control Projects	Natural Resource Protection	Public Information	Emergency Services	
Taney County Emergency Management	X	X	X	X	X	Х	
Taney County Planning and Zoning	Х	X	X	X	X	X	
Branson Fire	X	X	X	X	X	X	
Branson Building Division	Х	Х	Х				
Branson Emergency Management	Х	X	X	X	X	X	
Branson Fire	X	X	X	X	X	X	
Forsyth Finance					X		
Forsyth Emergency Management	X	X	X	X	X	X	
Forsyth Fire	X	X	X	X	X	X	
Forsyth Building Inspector	Х	Х	Х				
Hollister Administration	X	X			X		
Hollister Building Department	Х	X	X				
Merriam Woods Public Works	X	X	X	Х			
Merriam Woods Administration	X	X			X		
Rockaway Beach Administration	X	X			X		
Bull Creek Public Works	X	X	X	X			
Bull Creek Administration	X	X			X		
Branson R-IV Superintendent					X		
Forsyth R-III Superintendent					X		
Hollister R-IV Superintendent					Х		
Kirbyville R-VI Superintendent					Х		
Taneyville R-II Superintendent					Х		
Taney County Regional Sewer Administration	Х		Х	Х			
Western Taney County Fire Chief	Х	Х	Х	Х	Х	Х	

1.4.1 Multi-Jurisdictional Participation

44 CFR Requirement §201.6(a)(3): Multi-jurisdictional plans may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan.

The Plan serves as a written document of the planning process. Active participation of local jurisdiction representatives and stakeholders in the hazard mitigation planning process is essential if the Plan is to have value. To be eligible for mitigation funding, local governments must adopt the FEMA-approved update of the Plan. The participation of the local government stakeholders in the planning process is considered critical to successful implementation of this plan. Each jurisdiction that is seeking approval for the Plan must have its governing body adopt the updated plan, regardless the degree of modifications. SMCOG collaborated with the local governments in Taney County to assure participation in the planning process and the development of a plan that represents the needs and interests of Taney County and its local jurisdictions. Appendix D contains resolutions for jurisdictions adopting the Plan.

County Commissioners, incorporated communities, public schools, special districts, and various other stakeholders in mitigation planning were invited to a kick-off meeting for the Plan update on January 18, 2022. At this meeting it was explained that the Disaster Mitigation Act (DMA) requires each jurisdiction participating in the planning process officially adopt the plan. The criteria for participation that each jurisdiction must meet in order to be considered a "participant" in the Plan was established at this meeting and include the following:

- Participation in at least two MPC meetings, by either direct participation or authorized representation
- Each participating jurisdiction must provide to the MPC sufficient information to support plan development by completion and return of Data Collection Questionnaires
- Provide documentation to show time donated to the planning effort
- All participants should formally adopt the mitigation plan

In order to be included in the plan as a participating jurisdiction, each jurisdiction was required to send a representative to two meetings, complete the data collection questionnaire, complete inkind time documentation (if applicable), and formally adopt the plan as minimum requirements. Some jurisdictions were able to adopt the plan before it received final SEMA/FEMA approval, while others had to wait for SEMA/FEMA to first approve the plan before they could formally adopt it. Jurisdictions that met the minimum requirements are considered to have satisfactorily participated in the planning process. In addition to public outreach solicited through SMCOG, each participating jurisdiction was strongly encouraged to seek public input at an open public meeting or through various forms of input solicitation.

Table 1.4 shows the representation of each participating jurisdiction at the planning meetings and the provision of responses to the data collection questionnaire. All jurisdictions participating in the Plan either reviewed or commented on the draft Plan, participated in the update and development of mitigation actions, documented the donation of time, and passed an adoption resolution either before or after final SEMA/FEMA approval. Meeting sign-in sheets are located in Appendix B.

Table 1.4. Jurisdictional Participation in Planning Process

Jurisdiction	Mtg #1	Mtg #2	Mtg #3	Mtg #4	Mtg #5	Data Collection Questionnaire Response	Documented Donated Time	Adoption Resolution	
	-3	3	3					Before Approval	After Approval
Taney County	Х	Х	Х	Х	Х	Х	х		Х
City of Branson	Х	Х	Х		Х	Х	х		Х
City of Forsyth	Х	Х	Х	Х	Х	Х	Х		Х
City of Hollister			Х	Х	Х	Х	Х		Х
City of Merriam Woods			х	х		x	х	x	
City of Rockaway	Х	х	Х			Х	х	х	
Village of Bull Creek	х		х	х		Х	х	х	
Branson R-IV School District	х	х				х	х		х
Forsyth R-III School District	х	х			х		х	Х	
Hollister R-V School District	x	х		х		х	х	х	
Kirbyville R-VI School District	х	х			х	Х	х	х	
Taneyville R-II School District	Х	х		х		Х	х	x	
Western Taney County Fire Protection District	x	x	x			х	х		х
Taney County Regional Sewer District			х		х	х	х	Х	

1.4.2 The Planning Steps

FEMA's Local Mitigation Planning Handbook (March 1, 2013), Local Mitigation Plan Review Guide (October 1, 2011), and Integrating Hazard Mitigation into Local Planning: Case Studies and Tools for Community Officials (March 1, 2013) were used as the sources for developing the Plan update process. The development of the plan followed the 10-step planning process adapted from FEMA's Community Rating System (CRS) and Flood Mitigation Assistance programs. The 10-step process allows the Plan to meet funding eligibility requirements of the Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, Community Rating System, and Flood Mitigation Assistance Program.

Table 1.5 is a summary of how SMCOG staff used the Nine Task Process to develop the update to the Plan.

 Table 1.5.
 County Mitigation Plan Update Process

Community Rating System (CRS) Planning Steps (Activity 510)	Local Mitigation Planning Handbook Tasks (44 CFR Part 201)		
Step 1. Organize	Task 1: Determine the Planning Area and Resources		
Step 1. Organize	Task 2: Build the Planning Team 44 CFR 201.6(c)(1)		
Step 2. Involve the public	Task 3: Create an Outreach Strategy 44 CFR 201.6(b)(1)		
Step 3. Coordinate	Task 4: Review Community Capabilities 44 CFR 201.6(b)(2) & (3)		
Step 4. Assess the hazard	Task 5: Conduct a Risk Assessment		
Step 5. Assess the problem	44 CFR 201.6(c)(2)(i) 44 CFR 201.6(c)(2)(ii) & (iii)		
Step 6. Set goals	Task 6: Develop a Mitigation Strategy		
Step 7. Review possible activities	44 CFR 201.6(c)(3)(i); 44 CFR 201.6(c)(3)(ii); and		
Step 8. Draft an action plan	44 CFR 201.6(c)(3)(iii)		
Step 9. Adopt the plan	Task 8: Review and Adopt the Plan		
	Task 7: Keep the Plan Current		
Step 10. Implement, evaluate, revise	Task 9: Create a Safe and Resilient Community 44 CFR 201.6(c)(4)		

Step 1: Organize the Planning Team

In April 2021, SMCOG entered into cooperative agreements with SEMA and Taney County to prepare this multi-jurisdictional plan for public entities in Taney County. Discussions on the development of the Taney County Multi-Jurisdictional Natural Hazard Mitigation Plan began in October 2021 with an introductory scoping meeting attended by SMCOG staff and the County Emergency Management Director. This meeting was conducted to discuss the timeline for developing the hazard mitigation plan, the planning process, identification of stakeholders and community organizations to include in the planning process, and dates for five planning committee meetings, beginning with a kick-off meeting on January 18, 2022 to initiate participation of jurisdictions and public entities in the planning process. The Emergency Management Director (EMD) and SMCOG staff identified prospective participant representatives and stakeholders and a contact list was prepared for mailing an invitation letter to the kick-off meeting. The list of invitees included local elected officials, municipal government staff, county government staff, emergency services personnel, public school administrators, members from health and social services organizations, and utility providers. A complete list of invitees is in Appendix B.

The MPC met on several occasions from January through May 2022 to collaborate on the development of the Plan update. Participants assisted in data collection; reviewed and revised the Plan's goals and mitigation strategies; and provided reviews and comments on the Plan

throughout the update process. Communication with MPC members occurred throughout the planning process through phone conversations, letters, and email correspondence in addition to committee meetings. **Table 1.6** shows the meeting schedule and items discussed for MPC meetings.

Table 1.6. Schedule of MPC Meetings

Meeting	Topic	Date
Kick-off Meeting	Introduction to hazard mitigation planning, participation requirements, and the planning process	01/18/2022
Planning Meeting #2	Participation overview, process recap, and risk assessment	02/15/2022
Planning Meeting #3	Mitigation goals and actions	03/22/2022
Planning Meeting #4	Mitigation goals and actions	04/19/2022
Planning Meeting #5	Funding and implementation mechanisms, plan adoption, and maintenance	05/17/2022

Step 2: Plan for Public Involvement

44 CFR Requirement 201.6(b): An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include: (1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval.

Options for soliciting public input on the Plan were discussed with the MPC at the kick-off meeting held on January 18, 2022. SMCOG staff explained the importance of public involvement during the planning process. Meeting dates and invitations were posted on the SMCOG website along with drafts of the Plan for public comment during the drafting stage and prior to submission of the Plan to SEMA for approval. A draft of the plan was posted on the SMCOG website on Friday, May 20, 2022, after being sent to committee members for review. Captures of the meeting dates posted on the SMCOG website are included in Appendix B.

It was also discussed at the kick-off meeting that solicitation of public input would be sought by members of the MPC through announcements at gatherings and other public meetings, such as board of aldermen, county commission meetings, board of education meetings, and local emergency planning committee meetings.

The MPC also decided that SMCOG staff would assist in developing an online community survey. The survey was posted on the jurisdictions' social media pages. 98 responses were received in the two-month timeframe the survey was open. A summary of responses to the survey can be found in chapter 3 in each hazard profile.

Step 3: Coordinate with Other Departments and Agencies and Incorporate Existing Information

44 CFR Requirement 201.6(b): An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include: (2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process. (3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

As stated in **Section 1.4**, neighboring communities, businesses, academia, and other non-profit interests were notified via email and letters. A notification was sent to adjacent county Emergency Management Directors and local and regional agencies such as OACAC, Health Departments, and special districts. A complete listing of agencies invited to participate in the planning process and what meetings they were invited to attend is included in Appendix B.

Coordination with FEMA Risk MAP Project

There was no coordination with the FEMA Risk Map project during the update of this plan, as there no projects currently underway.

Integration of Other Data, Reports, Studies, and Plans

A significant amount of information presented in the Plan has been updated and revised based on the review and incorporation of existing plans, studies, reports, and technical information. Appendix A contains a list of references to plans, studies, reports, and technical information to incorporate into hazard profiles, risk assessment, and profile and capability sections. Plan participants and stakeholders were asked to provide any relevant information and data for inclusion in the document. A few examples of information incorporated from the review of existing plans, etc. include:

- 2018 Missouri State Hazard Mitigation Plan
- The National Inventory of Dams (NID)
- Missouri Department of Conservation (MDC) wildfires statistics
- Wildland/Urban Interface and Intermix areas from the SILVIS Lab
- 2017 Taney County Hazard Mitigation Plan

Step 4: Assess the Hazard: Identify and Profile Hazards

At the second MPC meeting, profiles of identified hazards from the 2017 Plan were presented. Storm event data from the National Centers for Environmental Information for the five-year period since the adoption of the 2017 Plan were included in the hazard profiles. The presentation incorporated data from studies, reports, and technical information available through internet research. During the process of identifying hazards the MPC reviewed:

- Previous disaster declarations in the county
- Hazards in the most recent State Hazard Mitigation Plan
- Hazards identified in the previously approved hazard mitigation plan

The MPC was asked to prioritize the identified hazards based on probability of occurrence, human impact, and property impact. Additional information about the conclusions drawn can be found in the Risk Assessment chapter of the Plan.

Step 5: Assess the Problem: Identify Assets and Estimate Losses

Identified assets in the planning area include population, structures, critical facilities and infrastructure, and other important assets that may be at risk to hazards. The inventory of assets for each jurisdiction was derived from parcel data from the Taney County Assessor, the Taney County Structures GIS dataset from MSDIS, local jurisdiction data collection questionnaires, and the U.S. Census. Potential losses to existing development were estimated based on hazard event scenarios. In most cases the assessor values were used to estimate structure losses in impacted areas for structure occupancy types. The methodology for estimating losses varies by hazard. Loss estimates are included in each hazard profile of the Risk Assessment chapter.

Most jurisdictions estimated local capabilities and assets based on the best available data and staff knowledge. In some cases, MPC members were not able to fully complete questionnaires due to limited local information being available.

Step 6: Set Goals

The MPC conducted a discussion session during the third meeting to review and update the Plan goals. The MPC also reviewed the goals from surrounding counties' plans. In the 2017 Plan, the organization of the actions included broad goals and a set of objectives linking the actions to the goals. The MPC opted to keep the goals from the 2017 Plan (with a slight rewording) and eliminate the objective statements, moving forward with broad goals and specific mitigation actions. Objectives added a layer of complication and potential confusion. During this update process, the intent was to provide a useable set of actions that each jurisdiction was able to work towards partial or full implementation, and objectives seemed unnecessary.

The Plan update goals are as follows:

Goal 1: Protect lives and livelihood of all citizens.

Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy.

Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster.

These goals and the identified mitigation actions are discussed in more detail in Chapter 4.

Step 7: Review Possible Mitigation Actions and Activities

In addition to discussing the overall goals at the third and fourth meetings, the MPC also reviewed mitigation actions from the previous plan and any potential new actions. For a comprehensive

range of mitigation actions to consider, the MPC reviewed the following information during the meeting:

- A list of actions proposed in the previous mitigation plan
- Input during meetings
- Responses to Data Collection Questionnaires where jurisdictions had reported progress made on previous actions
- FEMA publications *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards* (January 2013) and *Hazard Mitigation Assistance Guidance* (2015)

Jurisdiction representatives on the MPC were encouraged to review the details of the risk assessment vulnerability analysis specific to their jurisdiction, and the previously identified mitigation actions prior to the meeting. Representatives were provided a link to the FEMA's publication, *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards* (January 2013) prior to the meeting. 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. Additionally, survey responses which identified community support for specific mitigation actions were reviewed and discussed.

During these meetings, few new actions were proposed by the committee and numerous actions were reworded. Much of the discussion surrounded making actions SMART: Specific, Measurable, Achievable, Relevant, and Time-bound.

Step 8: Draft an Action Plan

At the fourth MPC meeting, representatives were provided with blank STAPLEE scoring sheets. Those who could not attend the meeting were emailed the sheets. The method was used to develop a priority score for proposed actions. During the meeting, SMCOG staff provided an overview of scoring criteria and example scoring for an action. MPC members were encouraged to use the STAPLEE scoring to determine which actions applied to their jurisdiction. Actions were eliminated due to non-applicability or low feasibility scores.

MPC members were also given action sheets that corresponded to the STAPLEE sheets. SMCOG staff reviewed the action sheets in detail and discussed what department or position would be responsible for implementing the action, potential funding sources, timeline for completion, and local planning mechanisms for implementation. The action plans are listed for each jurisdiction in the Mitigation Strategy chapter.

Step 9: Adopt the Plan

The final meeting provided a wrap-up and opportunity to answer any questions pertaining to plan adoption. The final plan must be approved by the governing body of each jurisdiction by resolution to be eligible for hazard mitigation assistance. Adoption resolutions are included in Appendix D.

Step 10: Implement, Evaluate, and Revise the Plan

At the final meeting, MPC members briefly reviewed potential funding sources for mitigation projects and the process for reviewing and monitoring the plan. Taney County Emergency Management will be charged with scheduling and staffing annual meetings and keeping the plan updated. The overall strategy has been updated and is presented in the Plan Maintenance

chapter.

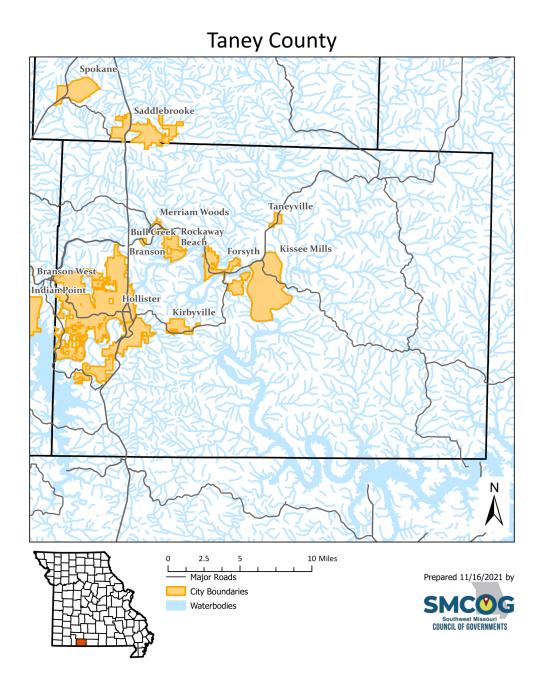
2 PLANNING AREA PROFILE AND CAPABILITIES

2	PLANI	NING AREA PROFILE AND CAPABILITIES	2 .1
	2.1	aney County Planning Area Profile	2.
		· · · · · · · · · · · · · · · · · · ·	
	2.1.1	Geography, Geology and Topography	
	2.1.2	Climate	
	2.1.3	Population/Demographics	2.4
	2.1.4	History	2.6
	2.1.5	Occupations	2.7
	2.1.6	Agriculture	2.7
	2.1.7	FEMA Hazard Mitigation Assistance (HMA) Grants in Planning Area	2.7
	2.1.8	FEMA Public Assistance (PA) Grants in Planning Area	
	2.2	urisdictional Profiles and Mitigation Capabilities	2.13
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	2.2.2	Special Districts	2.33
	2.2.3	Public School District Profiles and Mitigation Capabilities	2.34

2.1 TANEY COUNTY PLANNING AREA PROFILE

Taney County is located in Southwest Missouri along the Missouri/Arkansas boarder. Stone County lies to the west, Christian and Douglas Counties lie to the north, and Ozark County lies to the east. The county covers an area of approximately 652 square miles, of which 632 square miles are land and 19 square miles are water. Incorporated communities include the cities of Branson, Hollister, Rockaway Beach, Forsyth, and Merriam Woods, as well as the villages of Bull Creek, Kirbyville, Saddlebrooke (located mostly in Christian County) and Taneyville. Forsyth serves as the county seat. Figure 2.1 is a map of Taney County showing the cities, villages, and overall location of Taney County within the state.

Figure 2.1. Map of Taney County



The American Community Survey estimates the 2019 population of Taney County at 55,114. This is an 11.74% increase from the 2010 American Community Survey estimate, which put the population at 49,324. During the same timeframe, the state saw an increase of 9.7% and the nation saw an increase of 16.6%.

From 2010 to 2019, the median household income (MHI) rose 17.95% from \$39,026 to \$46,031. This is compared to a 19.89% increase statewide and a 21.05% nationwide increase. The medium household value (MHV) for Taney County increased 5.83% from \$132,000 to \$139,800. However, this is significantly lower than the state (22%) and nationwide (15.45%) increases.

2.1.1 Geography, Geology and Topography

Taney County includes 632 square miles of land and 19 square miles of water located in southwest Missouri. The county has four municipalities with populations over 2,000: Branson (11,416), Forsyth (2,549), Hollister (4,532) and Merriam Woods (2,210). Since 2010, all incorporated cities and villages saw a population increase except for the Village of Taneyville, which saw a 19.78% decrease.

The Taney County Soil Survey identifies twenty soils units in the county. The soils are highly variable and range in thickness from thin to none on steep slopes to over 60 inches on ridge tops, foot slopes, stream terraces, and floodplains. Taney County is primarily underlain by Mississippian and Ordovician age limestones and dolomites. The county's topographic surface features reflect an advanced stage of the geological erosion cycle. Surface features are primarily a result of the Ozark uplift and subsequent erosion of the limestone bedrock.

Taney County is known for its panoramic vistas. Outliers, which are rock outcrops that have become detached from the main body of bedrock, extend in length from one to twelve miles and create long, panoramic vistas. Rock outcrops are found throughout the county and are particularly noticeable around the lake areas.

Karst topographic features are common throughout the county. Karst features develop in areas of bedrock with high carbonate content. The bedrock is easily dissolved by a dilute carbonic acid found in the atmosphere, vegetation, and shales. Water infiltrates the bedrock and is channelized through natural cracks, joints, faults, and bedding planes. The dissolution of the bedrock and channelization of water results in caves, sinkholes, losing streams, springs, and other karst features.

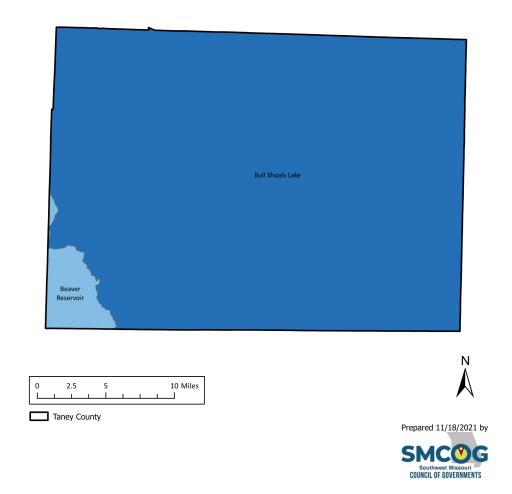
Taney County's water system is comprised of a complex and interconnected system of perennial and intermittent streams, impoundments, and subsurface water. The county is located in the White River Basin, which eventually flows to the Mississippi River. Taney County contains approximately 12,945 acres of surface water. One of the county's defining features and important economic resources is the surface reservoir system

Lake Taneycomo, Bull Shoals Lake, and Table Rock Lake, created from the construction of dams on the White River, account for approximately 10,480 acres of surface water. All three lakes provide for hydroelectric power generation and flood control as well as recreation.

Figure 2.2 is a map of the watershed boundaries for Taney County

Figure 2.2. Taney County Watersheds

Taney County Watersheds



2.1.2 Climate

Taney County has a continental climate with mild winters and hot, humid summers. Based on information from the Midwest Regional Climate Center (http://climod.unl.edu/), the Ozark Beach area in central Taney County has an average annual temperature of 58 Fahrenheit. The average high in July is 92 Fahrenheit and the average low in January is 24 Fahrenheit. The county averages 45.68 inches of precipitation per year.

2.1.3 Population/Demographics

Table 2.1 provides the total population for the county and each participating city and village for 2000, 2010, and 2019, as well as the number and percent change from 2010 to 2019. During this time, all

incorporated cities and villages except for Taneyville saw an overall increase in population. Branson added the most new citizens (+1,562), while Bull Creek saw the highest percentage increase (+128.57%). The county as a whole grew 11.74% and added nearly 5,800 new citizens.

Table 2.1. Taney County Population 2000–2019

Jurisdiction	2000 Population	2010 Population	2019 Annual Population Estimate or ACS Population	# Change (2010-2019)	% Change (2010-2019)
Taney County	39,703	49,324	55,114	+5,790	+11.74%
City of Branson	6,050	9,854	11,416	+1,562	+15.85%
City of Forsyth	1,686	1,978	2,549	+571	+28.87%
City of Hollister	3,867	4,321	4,532	+211	+4.88%
City of Merriam	1,142	1,768	2,210	+442	+25.00%
City of Rockaway	522	742	872	+130	+17.52%
Village of Bull Creek	225	217	496	+279	+128.57%

Source: U.S. Bureau of the Census, Decennial Census, annual population estimates/5-Year American Community Survey.

Taney County's most at-risk populations are somewhat on par with state and national averages. The total amount of children under 5 in the county, comprising 5.6% of the total population, is near the state (6.0%) and national number (5.9%). The county does have a higher population of elderly citizens, those 65 years and older, at 21.4% of the total population, compared to 17.2% for Missouri and 16.4% for the nation. Additionally, the county has a higher average age (42.2 years old) than the state (38.9) and the nation (38.5). **Table 2.2** provides a full breakdown of the age composition for Taney County, the State of Missouri, and the United States.

Table 2.2. Taney County, Missouri, and United States Population Age Composition

Age Group	Taney County Number	Taney County Percent	Missouri Percent	United States Percent
Under 5	3,108	5.6%	6.0%	5.9%
5 to 9	3,237	5.9%	6.2%	6.0%
10 to 14	3,282	6.0%	6.4%	6.5%
15 to 19	3,722	6.8%	6.5%	6.5%
20 to 24	3,785	6.9%	6.4%	6.5%
25 to 29	3,259	5.9%	6.9%	7.1%
30 to 34	2,907	5.3%	6.6%	6.8%
35 to 39	2,786	5.1%	6.6%	6.6%
40 to 44	3,215	5.8%	5.8%	6.1%
45 to 49	3,265	5.9%	5.9%	6.2%
50 to 54	3,452	6.3%	6.0%	6.2%
55 to 59	3,672	6.7%	6.8%	6.5%
60 to 64	3,695	6.7%	6.8%	6.4%
65 to 69	3,745	6.8%	5.5%	5.3%
70 to 74	3,172	5.8%	4.4%	4.3%
75 to 79	1,906	3.5%	3.2%	3.0%
80 to 84	1,575	2.9%	2.1%	1.9%
85 and over	1,331	2.4%	2.0%	1.9%

Source: 2019 American Community Survey Estimates

The University of South Carolina developed an index to evaluate and rank the ability to respond to, cope with, recover from, and adapt to disasters. The index synthesizes 29 socioeconomic variables which research literature suggests contribute to reduction in a community's ability to prepare for, respond to, and recover from hazards. SoVI® data sources include primarily those from the United States Census Bureau.

The index is a comparative metric that facilitates the examination of the differences in social vulnerability among counties. SoVI® is a valuable tool for policy makers and practitioners. It graphically illustrates the geographic variation in social vulnerability. It shows where there is uneven capacity for preparedness and response and where resources might be used most effectively to reduce the pre-existing vulnerability. SoVI® also is useful as an indicator in determining the differential recovery from disasters.

Taney County's SoVI® score is 4.659999847, placing it in the **95th** percentile when compared to the rest of the nation. This score means that **95** percent of the nation is more resilient to hazards and disasters. The main determinants of the score are qualities of the population based on race and class, wealth, elderly residents, Hispanic ethnicity, special needs individuals, Native American ethnicity, and the service industry employment.

Table 2.3. Taney County Unemployment, Poverty, Education, and Language Percentage Demographics,

Jurisdiction	Total in Labor Force	Percent of Population Unemployed	Percent of Families Below the Poverty Level	Percentage of Population (High School graduate or higher)	Percentage of Population (Bachelor's degree or higher)	Percentage of population with spoken language other than English
Taney County	26,561	4.8%	10.0%	88.9%	19.9%	5.6%
City of Branson	5,730	3.6%	12.5%	88.5%	22.7%	12.3%
City of Forsyth	870	6.2%	13.0%	84.7%	15.2%	2.9%
City of Hollister	2,232	9.3%	12.4%	86.1%	17.3%	5.0%
City of Merriam Woods	1,031	10.8%	23.6%	81.5%	9.3%	13.2%
City of Rockaway Beach	412	3.2%	12.4%	91.0%	19.9%	10.0%
Village of Bull Creek	196	4.1%	30.4%	66.7%	4.6%	1.3%
Missouri	3,078,235	3.8%	8.8%	90.7%	30.2%	6.6%
United States	167,501,7	4.5%	8.6%	88.6%	33.1%	22.0%

Source: U.S. Census, 2019 American Community Survey, 5-year Estimates.

2.1.4 History

Taney County was officially organized on January 4, 1837, and was named in honor of Roger Brooke Taney, the fifth Chief Justice of the U.S. Supreme Court.

In 1845, Forsyth, at the mouth of Swan Creek, was chosen as the county seat. A brick courthouse was built in 1855 but burned during the Civil War. Soon after the war, it was repaired, but in 1865 fire again destroyed the building and most county records were lost. The next courthouse was destroyed by fire on December 19, 1885, with the majority of records lost once again. When the town of Forsyth was relocated to its current location in the 1950's due to the development of Bull Shoals Lake, the present courthouse was built and occupied in 1952. It was a one-story, four-sided structure with an open courtyard in the center. In 1991, a new addition to the courthouse was added that added a second story and enclosed the courtyard. In 2008, the nearby Judicial Center was completed.

Historically a rural, agrarian-based community, many changes have occurred since Taney County's organization as a Missouri county in 1837. The county has seen its primary economy change from one of labor-intensive agricultural production of fruits, vegetables and other cash crops, lumbering, and manufacturing of goods from the area's natural resources to one heavily dependent on service and retail sector jobs created by the tourism industry.

The county includes the popular tourist destination city of Branson and is part of the Branson Micropolitan Statistical Area. Taney County is also the home to Table Rock Lake, Lake Taneycomo, and Bull Shoals Lakes, formed from the White River.

2.1.5 Occupations

Occupation information for the Taney County labor force comes from the 2019 American Community Survey. Management, Business, Science, and Arts Occupations includes education and healthcare practitioner and technician occupations, among others. Service Occupation includes healthcare support and protective services, such as firefighters and law enforcement, in addition to food preparation and personal care services. The other occupation classifications are well defined. **Table 2.4** contains occupation statistics for Taney County and the participating jurisdictions.

Table 2.4. Taney County Occupation Statistics

Jurisdiction	Management, Business, Science, and Arts Occupations	Service Occupations	Sales and Office Occupations	Natural Resources, Construction, and Maintenance Occupations	Production, Transportation, and Material Moving Occupations
Taney County	30.4	23.1	28.6	7.6	10.2
City of Branson	29.2	31.7	27.2	4.7	7.1
City of Forsyth	24.3	22.9	34.1	9.1	9.7
City of Hollister	28.1	16.5	35.6	3.5	16.3
City of Merriam Woods	22.5	31.6	22.3	9.3	14.2
City of Rockaway Beach	32.6	25.3	29.1	6.8	6.3
Village of Bull Creek	38.5	17.8	21.6	8.9	13.2

Source: U.S. Census, 2019 American Community Survey, 5-year Estimates.

2.1.6 Agriculture

According to the United States Department of Agriculture 2017 Agricultural Census, there were 395 farms covering 108,188 acres across Taney County. The average farm size was 274 acres, which is slightly lower than the average farm size in Missouri at 291 acres. The average market value of agricultural products sold in Missouri per farm is \$110,427, while the average value for Taney County is \$33,225. 91% of sales come from livestock, poultry, and products while the other 9% is from crops. This is significantly different than the state sales breakdown of 48% livestock poultry, and products and 52% crops. There are 683 producers in the county. 14% of these farms hire farm labor, 97% are family farms, and 7% sell directly to consumers.

2.1.7 FEMA Hazard Mitigation Assistance (HMA) Grants in Planning Area

Since 2008, local jurisdictions in Taney County have been awarded a total of \$5,693,802.02 in FEMA HMA Grants. These grants have been used to fund safe room and acquisition of private real property projects (sometimes referred to as flood buyouts). **Table 2.5** shows a full breakdown for each project.

Table 2.5. FEMA HMA Grants in Taney County from 2000-2022

Disaster Declaration	Project Type	Sub-Grantee	Date Approved	Project Total
DR-1822-0006-R	Safe room	Hollister R-V School District	07/03/2014	\$1,736,102.00
DR-4317-0037-R	Acquisition of private real property	Bull Creek	12/01/2021	\$578,159.02
DR-1980-0002-R	Acquisition of private real property	Taney County	07/28/2015	\$2,560,003.00
DR-1980-0003-R	Acquisition of private real property	Branson	08/13/2015	\$602,430.00
DR-1412-0007-R	Acquisition of private real property	Bull Creek	07/30/2008	\$217,108
Total				\$5,693,802.02

Source: Federal Emergency Management Agency

2.1.8 FEMA Public Assistance (PA) Grants in Planning Area

Since 2002, jurisdictions in Taney County have received over \$8.6 million in public assistance grants due to natural hazard damages. **Table 2.6** shows a full breakdown of the payments, as well as the applicant, project type, and matching Disaster Declaration. Data was retrieved from the FEMA public assistance dataset.

Table 2.6. FEMA PA Grants in Taney County from 2002-2022

Disaster Declaration	Project Type	Project Size	Applicant	Project Total
	Flood Generated Emergency		Taney County Road &	
1412	Protective Measures	Small	Bridge	\$50,641.40
1412	City Park Damages	Small	City of Branson	\$47,558.21
1412	Building Damage	Small	City of Forsyth	\$1,211.86
1412	Debris Removal	Small	City of Branson	\$1,029.77
1412	Streets And Road Repair	Small	City of Forsyth	\$8,894.73
1412	Lift Station Damage	Small	Village of Bull Creek	\$6,378.68
1412	Road Repair	Small	Village of Bull Creek	\$3,193.18
1412	Electric System Repair	Small	White River Valley Electric	\$1,521.54
1412	Electrical System Repair	Small	White River Valley Electric	\$1,431.33
1412	Electrical System Repair	Small	White River Valley Electric	\$9,820.82
			Taney County Road &	
1412	Road And Drainage Structure Repair	Small	Bridge	\$10,153.38
	Repair Damaged Roads and Drainage		Taney County Road &	
1412	Structures	Large	Bridge	\$122,156.33
1749	Pa Pilot - Debris Removal	Small	Village of Bull Creek	\$1,397.08
1749	Road Washout-Revised 5/13/08	Small	Village of Bull Creek	\$10,141.40
1749	Debris Removal	Small	City of Rockaway Beach	\$18,500.00
1749	Emergency Protective Measures	Small	Taney County	\$5,599.44
1749	Emergency Protective Measures	Small	City of Forsyth	\$3,320.93
1749	Pa Pilot - Debris Removal	Small	City of Forsyth	\$24,293.60
1749	Pa Pilot - Debris Removal	Small	City of Forsyth	\$10,386.39
1749	Donated Resources	Small	City of Rockaway Beach	\$1,174.45
1749	Emergency Protective Measure	Small	Taney County	\$4,348.84
1749	Emergency Protective Measures	Small	City of Rockaway Beach	\$3,230.68
1749	Lift Station Pump Damage	Small	City of Rockaway Beach	\$4,638.48
1749	Beach / Sidewalk Erosion	Small	City of Rockaway Beach	\$9,075.30
1749	Emergency Protective Measure	Small	City of Branson	\$4,169.07
	Campground Building Interior			
1749	Damages	Small	City of Branson	\$2,571.50
1749	Emergency Protective Measures	Small	City of Branson	\$3,475.78
1749	Emergency Protective Measures	Small	City of Branson	\$1,487.16

4740	B 1 E 300 B 1		0: 10	\$00.000.50
1749	Park Facilities Repair	Small	City of Branson	\$22,286.56
1749	Emergency Protective Measures	Small	City of Branson	\$6,654.43
4740	Pa Pilot Debris Removal - Revised		07. 15	# 44.070.00
1749	7/14/08	Small	City of Branson	\$11,873.29
1749	Park / Playground Repairs	Small	City of Branson	\$44,310.31
1749	Road Washout	Large	Taney County	\$132,396.25
1749	Emergency Protective Measures	Small	Taney County	\$48,728.03
1749	Pa Pilot - Debris Removal	Small	Taney County	\$54,691.49
1749	Road / Low Water Crossing Washout	Small	Taney County	\$8,076.41
1749	Road / Ditch Washout	Large	Taney County	\$81,897.02
1749	Culvert Damage and Road Washout	Small	Taney County	\$54,139.39
1749	Road Washout	Large	Taney County	\$173,306.09
1773	Road Washout	Small	Village of Bull Creek	\$2,473.51
			Western Taney County	
1773	Emergency Protective Measures	Small	Fire Protection District	\$4,960.70
1773	Pa Pilot - Debris Removal	Small	City of Hollister	\$6,941.03
1773	Sewer Line Damages	Small	City of Hollister	\$4,591.07
1773	Emergency Protective Measures	Small	City of Branson	\$5,246.09
1773	Donated Resources	Small	City of Branson	\$3,792.20
1773	Pa Pilot - Debris Removal	Small	City of Branson	\$19,046.32
1773	Emergency Protective Measures	Small	City of Hollister	\$1,908.26
1773	Wastewater Treatment Plant Damages	Small	City of Hollister	\$1,576.36
1773	Road Washout	Small	City of Hollister	\$5,021.97
1773	Wing-Wall Washout	Small	City of Branson	\$4,191.00
1773	Park Playground / Diamond Damages	Small	City of Branson	\$18,344.36
1773	Emergency Protective Measures	Small	Taney County	\$15,375.95
1773	Walking Trail / Baseball Diamond	Oman	Tailey County	ψ10,070.90
1773	Damages	Small	City of Branson	\$59,068.62
1773	Emergency Protective Measures	Small	Taney County	\$7,126.43
1773	Lift Station Damages	Small	Taney County Taney County	\$22,654.26
1773	Culvert Washout	Small		
1773			City of Rockaway Beach	\$1,174.10
	Pa Pilot - Debris Removal	Large	Taney County	\$72,716.34
1773	Emergency Protective Measures	Small	Taney County	\$395.49
1773	Road & Culvert Washout	Small	Taney County	\$45,496.88
1773	Culvert / Low Water Crossing Washout	Large	Taney County	\$103,054.04
1773	Road & Culvert Washout	Large	Taney County	\$149,517.76
1773	Bridge Washout	Large	Taney County	\$184,101.32
1809	Bull Creek - Tbc-C01	Small	Village of Bull Creek	\$1,665.70
			Western Taney County	
1809	1809	Small	Fire Protection District	\$6,533.00
1809	Pa Pilot-Debris Removal Tar-A01	Small	City of Rockaway Beach	\$1,734.88
1809	Pa Pilot Tac-A01	Large	Taney County	\$101,284.31
1809	Pa Pilot Tab-A01	Small	City of Branson	\$59,545.84
1809	City Of Branson (TAB-V01)	Small	City of Branson	\$944.51
1809	Park Damage Tab-G01	Small	City of Branson	\$10,519.64
1809	Epm-Tab-B01	Small	City of Branson	\$5,143.79
1809	Epm Tfd-B02	Small	Forsyth Fire Department	\$1,005.60
1809	1809	Small	Central Taney County Fire	\$1,206.04
1809	Roads TAC-C01	Large	Taney County	\$169,156.61
1822	Cf-01tb - City Streets	Small	City of Forsyth	\$14,725.46
1822	Tc01an Debris Removal	Small	City of Branson	\$7,770.50
1822	Cb-01tb-Epm	Small	City of Branson	\$43,957.63
1822	Tc01tb-Epm	Small	Taney County	\$10,775.57
1822	Ch002jj - City Vehicles	Small	City of Hollister	\$1,805.67
1822	Ch001jj-Epm	Small	City of Hollister	\$15,639.47
·			Western Taney County	Ţ.0,000.11
1822	Tcf02tb-Epm-Dr	Small	Fire Protection District	\$1,160.30
		Ja.i	Western Taney County	ψ1,100.00
1822	Tcf01tb-Epm	Small	Fire Protection District	\$1,211.00
1022	Tc02tb Emergency Protective	Silian	THE FIGURE DISTRICT	ψ1,211.00
1822	Measures	Large	Taney County	\$350,147.60
1822	Tc02an-Debris	Large	Taney County Taney County	\$278,898.74
1822	Rb01tb City Streets	Small	City of Rockaway Beach	
1022	NUUTIN CITY SHEETS	Jiilali	City of Rockaway Deach	\$1,252.28

1980	Sed-002-Boat Dock	Small	City of Rockaway Beach	\$33,925.00
	Ajb-001 - Emergency Protective	91110111	Western Taney County	
1980	Measures	Small	Fire Protection District	\$1,803.00
1000	Modeuroo	Oman	Western Taney County	Ψ1,000.00
1980	Ajb-002 - Epm (Donated Resources)	Small	Fire Protection District	\$3,524.92
1300	Vws-005-Emergency Protective	Oman	The Frotestion District	Ψ0,024.02
1980	Measures	Small	Central Taney County Fire	\$3,124.99
1900	Ajb-009-Emergency Protective	Siliali	Central raries County File	ψ5,124.99
1980	Measures	Small	Tanay County	¢2 706 75
	Vws-006 - Epm (Donated Resources)		Taney County	\$2,786.75 \$3,606.56
1980		Small	Central Taney County Fire	' '
1980	Ajb-003 - City Hall	Small	City of Rockaway Beach	\$4,155.51
4000	Ajb-005 - Emergency Protective			#0.440.00
1980	Measures	Small	City of Rockaway Beach	\$3,413.80
1980	Ajb-004 - Epm - Donated Resources	Small	City of Rockaway Beach	\$2,787.96
	AJB-017'Streets (Constitution Ave.			
1980	And Kemp Drive)	Small	Village of Bull Creek	\$3,524.26
	Ajb-015-Emergency Protective			
1980	Measures	Small	Village of Bull Creek	\$4,721.90
1980	Maw-040-Lift Station	Small	Village of Bull Creek	\$1,111.96
	Dac-009-Campground			
1980	Office/Laundromat Building	Small	City of Branson	\$13,447.45
1980	Lab-005-Aggregate Road	Small	City of Hollister	\$2,000.78
1980	Ajb-027 - Washouts	Small	Taney County	\$6,907.75
1980	Ajb-028 - Grading/Reshaping	Small	Taney County	\$3,741.25
1980	Sed-022 - Donated Resource	Small	City of Branson	\$1,955.47
1300	Dac-010 - Storage Shed & Park	Oman	Oity of Branson	Ψ1,55517
1980	Restroom/Shower Building	Small	City of Branson	\$830.27
1900	SED-034-Golf Course Irrigation Pumps		City of Branson	φοσυ.21
4000			City of Dynamas	#4.000.00
1980	and Control System	Small	City of Branson	\$4,220.32
4000	SED-024-Parks Emergency Protective		0 (5	# 4 000 00
1980	Measures	Small	City of Branson	\$1,000.00
	Sed-036-Ball Fields, Fence, Tennis		0	
1980	Court, Storage Shed	Small	City of Branson	\$16,331.99
1980	LAB-015 - Water Treatment Facility	Small	City of Hollister	\$8,097.58
1980	LAB-002 - Debris Pick Up	Small	City of Hollister	\$3,181.84
	Dac-011 - Campground Portable			
1980	Restroom Deck/Ramp	Small	City of Branson	\$5,879.92
	DLW-032 - Low Water Crossing W/			
1980	Box Culvert	Small	Taney County	\$2,908.40
1980	Sed-039-Debris Removal	Small	City of Branson	\$2,911.70
	Lab-007 - Emergency Protective			
1980	Services	Small	City of Hollister	\$2,020.97
1980	Lab-004 - Emergency Services	Small	City of Hollister	\$1,551.66
1980	Lab-006 - Debris	Small	City of Hollister	\$1,815.00
	Ajb-029 - Aggregate Loss/Hot Mix		- 7	, . , <u>.</u>
1980	Layer/Shoulder Erosion	Small	Taney County	\$8,069.61
.000	Sed-035-Electrical Breakers, Picnic	Ja.ii	raney county	Ψο,οοο.οτ
1980	Tables, Lids, Road	Small	City of Branson	\$36,218.81
1980	Sed-032 - Cliff Intake/Lift Station #21	Small	City of Branson City of Branson	\$4,640.84
1980	Dac-027 - Debris Removal	Small	City of Branson	\$6,757.68
1980	Sed-033 - Stockstill Park	Small	City of Branson	\$50,485.67
1980	Sed-037 - Meadows Intake Station	Large	City of Branson	\$0.00
1980	Ajb-030-Aggregate Loss, Washouts	Small	Taney County	\$19,534.37
	Ajb-031 - Road Washout, Boat Ramp			
1980	Access, Boat Ramp Tur	Small	Taney County	\$14,189.50
1980	Dlw-030 -11 Ft Span Bridge	Small	Taney County	\$9,388.30
1980	Ajb-036 - Aggregate Loss, Washouts	Large	Taney County	\$107,008.06
1980	Dlw-031 - Box Culvert	Small	Taney County	\$10,017.40
	AJB-026 - Road Washout, Hot Mix			
1980	Layer	Small	Taney County	\$6,339.29
1980	Dac-039- Expressway Bridge	Small	City of Branson	\$3,523.87
1000	DLW-003-Historic Log Cabin and Log	Oman	Oity of Dianson	ψυ,υΖυ.υτ
1980	Smoke House	Small	City of Forsyth	\$9,986.40
1900	OHIONE HOUSE	Unitali	Oity Oi i Oisytti	ψυ,υου.40

1980	\$18,613.66 \$18,338.85 \$23,479.96 \$5,976.66 \$88,249.10 \$2,721.73 \$3,810.75 \$11,962.00 \$4,706.30
1980	\$23,479.96 \$5,976.66 \$88,249.10 \$2,721.73 \$3,810.75 \$11,962.00 \$4,706.30
Ajb-041 - Emergency Protective Measures SED-031-Emergency Protective Measures/Dept of Public Wo Sed-030-Emergency Protective Measures/Dept of Public Wo Sed-030-Emergency Protective Measures/Pitel Dept. Large City of Branson Sed-029-Emergency Protective Measures/Fire Dept. Small City of Forsyth Diw-002 - Shadowrock Park Small City of Forsyth Diw-010 - Shadowrock Park Small City of Forsyth Diw-010 - Shadowrock Park Small City of Forsyth Diw-010 - Shadowrock Park Small City of Forsyth Diac-043-Emergency Protective Measures/Police Dept. Small City of Branson RHA-013 - Sandbags and Earthen Berm Small Taney County LAB-031 - Emergency Protective Measures Small Taney County LAB-030 - Increased Sewer Treatment Costs Large LAB-030 - Increased Sewer Treatment Costs LAB-030 - Increased Sewer Treatment Large Taney County Diw-025 - Sewer Lift Station Small Taney County Diw-025 - Sewer Lift Station Small Taney County Diw-025 - Sewer Lift Station Small Taney County Diw-033 - Restrooms (Emergency Protective Measures) Small City of Forsyth Ajb-033-Restrooms (Emergency Protective Measures) Small Taney County Diw-045 - Sewer Lift Station Small Taney County Taney County Diw-045 - Sewer Lift Station Small Taney County Diw-046 - Emergency Protective Measures Small Taney County Diw-046 - Emergency Protective Diw-046 - Emergency Protective Measures Small Taney County Diw-046 - Emergency Protective Diw-040 - Ajb-035 - Vegetative Debris Small Taney County Diw-040 - Deventy Diw-	\$23,479.96 \$5,976.66 \$88,249.10 \$2,721.73 \$3,810.75 \$11,962.00 \$4,706.30
1980 Measures	\$5,976.66 \$88,249.10 \$2,721.73 \$3,810.75 \$11,962.00 \$4,706.30 \$14,890.05
SED-031-Emergency Protective Measures/Dept of Public Wo Small City of Branson Sed-030-Emergency Protective Measures/Utilities Dept. Large City of Branson Sed-029-Emergency Protective Measures/Fire Dept. Small City of Forsyth Measures/Fire Dept. Small City of Forsyth Small City of Forsyth Diw-016 - Y Road Walking Trail Small City of Forsyth Diw-016 - Y Road Walking Trail Small City of Forsyth Dac-043-Emergency Protective Small City of Forsyth Dac-043-Emergency Protective Small City of Forsyth Dac-043-Emergency Protective Small City of Branson RHA-013 - Sandbags and Earthen Berm Small Taney County Taney County LAB-031 - Emergency Protective Small Taney County LAB-031 - Emergency Protective Measures Small Taney County Taney County LAB-030 - Increased Sewer Treatment Lage Taney County T	\$5,976.66 \$88,249.10 \$2,721.73 \$3,810.75 \$11,962.00 \$4,706.30 \$14,890.05
Measures/Dept of Public Wo Small City of Branson	\$88,249.10 \$2,721.73 \$3,810.75 \$11,962.00 \$4,706.30 \$14,890.05
Sed-030-Emergency Protective Large City of Branson	\$88,249.10 \$2,721.73 \$3,810.75 \$11,962.00 \$4,706.30 \$14,890.05
Measures/Lilities Dept. Large City of Branson	\$2,721.73 \$3,810.75 \$11,962.00 \$4,706.30 \$14,890.05
Sed-029-Emergency Protective Measures/Fire Dept. Small City of Branson	\$2,721.73 \$3,810.75 \$11,962.00 \$4,706.30 \$14,890.05
1980 Measures/Fire Dept. Small City of Branson	\$3,810.75 \$11,962.00 \$4,706.30 \$14,890.05
Diw-002 - Shadowrock Park Small City of Forsyth	\$3,810.75 \$11,962.00 \$4,706.30 \$14,890.05
1980 Dlw-016 - Y Road Walking Trail Small City of Forsyth	\$11,962.00 \$4,706.30 \$14,890.05
Diw-001 - Shadowrock Park Small City of Forsyth	\$4,706.30 \$14,890.05
Dac-043-Emergency Protective Measures/Police Dept.	\$14,890.05
1980	
RHA-013 - Sandbags and Earthen Small Taney County	
1980 Berm	***
LAB-031 - Emergency Protective Measures LAB-030 - Increased Sewer Treatment Costs Large Taney County 1980 LAB-029 - Emergency Sewer Pumping Small Taney County 1980 Rha-014 - Signs & Barricades Small Taney County 1980 Diw-025 - Sewer Lift Station Small Taney County 1980 Mib-014-Park Buildings Small City of Forsyth 1980 Mib-013 - Park Buildings Small Taney County 1980 Protective Measures) Small Taney County 1980 Ajb-034-Debris Removal Small Taney County 1980 Dac-046'sewer Lift Station Small Taney County 1980 Rha-017-Vegetative Debris Small Taney County 1980 Rha-018-Road & Lwx - Emergency Protective Measures Small Taney County 1980 Rha-022- Grinder Pumps Small Taney County 1980 Ajb-032 - Picinic Table Shelter Small Taney County 1980 Ajb-045 - Culverts Small Taney County 1980 Rha-019 - Road Drainage - Emergency Protective Measures Small Taney County Rha-021 - Brushy Rd Debris Small Taney County Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County Taney County Taney County Taney County Taney County Rha-021 - Brushy Rd Debris Small Taney County Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County Taney County Taney County Taney County Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County Taney County Taney County Taney County Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County	1 60 330 63
LAB-030 - Increased Sewer Treatment Large Taney County	\$9,339.63
LAB-030 - Increased Sewer Treatment Costs LAB-029 - Emergency Sewer Pumping Small Taney County	\$2,465.38
1980CostsLargeTaney County1980LAB-029 - Emergency Sewer PumpingSmallTaney County1980Rha-014 - Signs & BarricadesSmallTaney County1980Dlw-025 - Sewer Lift StationSmallTaney County1980Mlb-014-Park BuildingsSmallCity of Forsyth1980Mlb-013 - Park BuildingsSmallCity of Forsyth1980Ajb-033-Restrooms (EmergencySmallTaney County1980Protective Measures)SmallTaney County1980Ajb-034-Debris RemovalSmallTaney County1980Dac-045'sewer Lift StationSmallTaney County1980Rha-017-Vegetative DebrisSmallTaney County1980Dac-046'sewer Lift StationSmallTaney County1980Protective MeasuresSmallTaney County1980Rha-022- Grinder PumpsSmallTaney County1980Rha-022- Grinder PumpsSmallTaney County1980Ajb-032 - Picinic Table ShelterSmallTaney County1980Ajb-045 - CulvertsSmallTaney County1980Ajb-045 - CulvertsSmallTaney County1980Ajb-035 - Vegetative DebrisSmallTaney County1980Rha-021 - Brushy Rd DebrisSmallTaney County1980Rha-020 - Drainage Ditches -Emergency Protective MeasureSmallTaney County	Ψ2,+00.00
1980 LAB-029 - Emergency Sewer Pumping Small Taney County 1980 Rha-014 - Signs & Barricades Small Taney County 1980 Dlw-025 - Sewer Lift Station Small Taney County 1980 Mlb-014-Park Buildings Small City of Forsyth 1980 Mlb-013 - Park Buildings Small City of Forsyth 1980 Protective Measures) Small Taney County 1980 Protective Measures) Small Taney County 1980 Ajb-034-Debris Removal Small Taney County 1980 Dac-045'sewer Lift Station Small Taney County 1980 Rha-017-Vegetative Debris Small Taney County 1980 Dac-046'sewer Lift Station Small Taney County 1980 Protective Measures Small Taney County 1980 Rha-018-Road & Lwx - Emergency 1980 Protective Measures Small Taney County 1980 Rha-022- Grinder Pumps Small Taney County 1980 Ajb-032 - Picinic Table Shelter Small Taney County 1980 Ajb-046 - Emergency Protective Measures Small Taney County 1980 Measures Small Taney County 1980 Ajb-045 - Culverts Small Taney County 1980 Rha-019 - Road Drainage - 1980 Emergency Protective Measures Small Taney County 1980 Rha-021 - Brushy Rd Debris Small Taney County 1980 Rha-021 - Brushy Rd Debris Small Taney County 1980 Rha-020 - Drainage Ditches - 1980 Emergency Protective Measure Small Taney County 1980 Rha-020 - Drainage Ditches - 1980 Emergency Protective Measure Small Taney County	\$49,918.24
Taney County	\$14,382.42
1980 Dlw-025 - Sewer Lift Station Small Taney County	\$13,615.82
1980Mlb-014-Park BuildingsSmallCity of Forsyth1980Mlb-013 - Park BuildingsSmallCity of Forsyth1980Ajb-033-Restrooms (Emergency Protective Measures)SmallTaney County1980Ajb-034-Debris RemovalSmallTaney County1980Dac-045'sewer Lift StationSmallTaney County1980Rha-017-Vegetative DebrisSmallTaney County1980Dac-046'sewer Lift StationSmallTaney County1980Protective MeasuresSmallTaney County1980Rha-018-Road & Lwx - Emergency Protective MeasuresSmallTaney County1980Rha-022- Grinder PumpsSmallTaney County1980Ajb-032 - Picinic Table ShelterSmallTaney County1980MeasuresSmallTaney County1980Ajb-045 - CulvertsSmallTaney County1980Ajb-045 - CulvertsSmallTaney County1980Ajb-035 - Vegetative DebrisSmallTaney County1980Rha-021 - Brushy Rd DebrisSmallTaney County1980Rha-020 - Drainage Ditches - Emergency Protective MeasureSmallTaney County1980Emergency Protective MeasureSmallTaney County	\$28,723.16
1980 MIb-013 - Park Buildings Small City of Forsyth Ajb-033-Restrooms (Emergency Protective Measures) Small Taney County 1980 Ajb-034-Debris Removal Small Taney County 1980 Dac-045'sewer Lift Station Small Taney County 1980 Rha-017-Vegetative Debris Small Taney County 1980 Dac-046'sewer Lift Station Small Taney County 1980 Dac-046'sewer Lift Station Small Taney County 1980 Protective Measures Small Taney County 1980 Rha-018-Road & Lwx - Emergency 1980 Protective Measures Small Taney County 1980 Rha-022- Grinder Pumps Small Taney County 1980 Ajb-032 - Picinic Table Shelter Small Taney County 1980 Measures Small Taney County 1980 Measures Small Taney County 1980 Ajb-045 - Culverts Small Taney County 1980 Ajb-045 - Culverts Small Taney County 1980 Ajb-035 - Vegetative Measures Small Taney County 1980 Rha-021 - Brushy Rd Debris Small Taney County 1980 Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County 1980 Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County 1980 Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County	\$10,844.20
Ajb-033-Restrooms (Emergency Protective Measures) Ajb-034-Debris Removal Dac-045'sewer Lift Station Rha-017-Vegetative Debris Small Taney County	\$9,960.47
1980Protective Measures)SmallTaney County1980Ajb-034-Debris RemovalSmallTaney County1980Dac-045'sewer Lift StationSmallTaney County1980Rha-017-Vegetative DebrisSmallTaney County1980Dac-046'sewer Lift StationSmallTaney County1980Protective MeasuresSmallTaney County1980Rha-022- Grinder PumpsSmallTaney County1980Ajb-032 - Picinic Table ShelterSmallTaney County1980Ajb-046 - Emergency ProtectiveSmallTaney County1980MeasuresSmallTaney County1980Ajb-045 - CulvertsSmallTaney County1980Emergency Protective MeasuresSmallTaney County1980Ajb-035 - Vegetative DebrisSmallTaney County1980Rha-021 - Brushy Rd DebrisSmallTaney County1980Rha-020 - Drainage Ditches -Emergency Protective MeasureSmallTaney County	ψο,σσο. 17
1980Ajb-034-Debris RemovalSmallTaney County1980Dac-045'sewer Lift StationSmallTaney County1980Rha-017-Vegetative DebrisSmallTaney County1980Dac-046'sewer Lift StationSmallTaney County1980Rha-018-Road & Lwx - EmergencySmallTaney County1980Protective MeasuresSmallTaney County1980Rha-022- Grinder PumpsSmallTaney County1980Ajb-032 - Picinic Table ShelterSmallTaney County1980MeasuresSmallTaney County1980Ajb-045 - CulvertsSmallTaney County1980Ajb-045 - CulvertsSmallTaney County1980Emergency Protective MeasuresSmallTaney County1980Ajb-035 - Vegetative DebrisSmallTaney County1980Rha-021 - Brushy Rd DebrisSmallTaney County1980Rha-020 - Drainage Ditches - Emergency Protective MeasureSmallTaney County	\$2,000.00
1980 Dac-045'sewer Lift Station Small Taney County 1980 Rha-017-Vegetative Debris Small Taney County 1980 Dac-046'sewer Lift Station Small Taney County 1980 Rha-018-Road & Lwx - Emergency 1980 Protective Measures Small Taney County 1980 Rha-022- Grinder Pumps Small Taney County 1980 Ajb-032 - Picinic Table Shelter Small Taney County 1980 Measures Small Taney County 1980 Measures Small Taney County 1980 Measures Small Taney County 1980 Ajb-045 - Culverts Small Taney County 1980 Ajb-045 - Culverts Small Taney County 1980 Emergency Protective Measures Small Taney County 1980 Ajb-035 - Vegetative Debris Small Taney County 1980 Rha-021 - Brushy Rd Debris Small Taney County 1980 Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County	\$1,768.38
1980Rha-017-Vegetative DebrisSmallTaney County1980Dac-046'sewer Lift StationSmallTaney CountyRha-018-Road & Lwx - EmergencyFrotective MeasuresSmallTaney County1980Rha-022- Grinder PumpsSmallTaney County1980Ajb-032 - Picinic Table ShelterSmallTaney County1980Ajb-046 - Emergency ProtectiveSmallTaney County1980MeasuresSmallTaney County1980Ajb-045 - CulvertsSmallTaney County1980Emergency Protective MeasuresSmallTaney County1980Ajb-035 - Vegetative DebrisSmallTaney County1980Rha-021 - Brushy Rd DebrisSmallTaney County1980Rha-020 - Drainage Ditches -SmallTaney County1980Emergency Protective MeasureSmallTaney County	\$14,825.75
1980 Dac-046'sewer Lift Station Small Taney County Rha-018-Road & Lwx - Emergency Protective Measures Small Taney County 1980 Rha-022- Grinder Pumps Small Taney County 1980 Ajb-032 - Picinic Table Shelter Small Taney County Ajb-046 - Emergency Protective Small Taney County 1980 Measures Small Taney County 1980 Ajb-045 - Culverts Small Taney County Rha-019 - Road Drainage - 1980 Emergency Protective Measures Small Taney County 1980 Ajb-035 - Vegetative Debris Small Taney County 1980 Rha-021 - Brushy Rd Debris Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County	\$16,800.91
Rha-018-Road & Lwx - Emergency Protective Measures Small Taney County 1980 Rha-022- Grinder Pumps Small Taney County 1980 Ajb-032 - Picinic Table Shelter Small Taney County Ajb-046 - Emergency Protective Measures Small Taney County 1980 Ajb-045 - Culverts Small Taney County Rha-019 - Road Drainage - Emergency Protective Measures Small Taney County Taney County Rha-035 - Vegetative Debris Small Taney County 1980 Rha-021 - Brushy Rd Debris Small Taney County Taney County Taney County Small Taney County Taney County Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County	\$5,738.91
1980Protective MeasuresSmallTaney County1980Rha-022- Grinder PumpsSmallTaney County1980Ajb-032 - Picinic Table ShelterSmallTaney County1980Ajb-046 - Emergency ProtectiveSmallTaney County1980Ajb-045 - CulvertsSmallTaney County1980Rha-019 - Road Drainage -SmallTaney County1980Emergency Protective MeasuresSmallTaney County1980Ajb-035 - Vegetative DebrisSmallTaney County1980Rha-021 - Brushy Rd DebrisSmallTaney County1980Rha-020 - Drainage Ditches -SmallTaney County1980Emergency Protective MeasureSmallTaney County	+ - ,
1980 Rha-022- Grinder Pumps Small Taney County 1980 Ajb-032 - Picinic Table Shelter Small Taney County Ajb-046 - Emergency Protective Measures Small Taney County 1980 Ajb-045 - Culverts Small Taney County Rha-019 - Road Drainage - Emergency Protective Measures Small Taney County 1980 Ajb-035 - Vegetative Debris Small Taney County 1980 Rha-021 - Brushy Rd Debris Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County	\$9,437.67
1980 Ajb-032 - Picinic Table Shelter Small Taney County Ajb-046 - Emergency Protective Measures Small Taney County 1980 Ajb-045 - Culverts Small Taney County Rha-019 - Road Drainage - 1980 Emergency Protective Measures Small Taney County 1980 Ajb-035 - Vegetative Debris Small Taney County 1980 Rha-021 - Brushy Rd Debris Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County	\$13,108.87
Ajb-046 - Emergency Protective 1980 Measures Small Taney County 1980 Ajb-045 - Culverts Small Taney County Rha-019 - Road Drainage - 1980 Emergency Protective Measures Small Taney County 1980 Ajb-035 - Vegetative Debris Small Taney County 1980 Rha-021 - Brushy Rd Debris Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County	\$1,432.85
1980MeasuresSmallTaney County1980Ajb-045 - CulvertsSmallTaney CountyRha-019 - Road Drainage - 1980Emergency Protective MeasuresSmallTaney County1980Ajb-035 - Vegetative DebrisSmallTaney County1980Rha-021 - Brushy Rd DebrisSmallTaney CountyRha-020 - Drainage Ditches - Emergency Protective MeasureSmallTaney County	
Rha-019 - Road Drainage - 1980 Emergency Protective Measures Small Taney County 1980 Ajb-035 - Vegetative Debris Small Taney County 1980 Rha-021 - Brushy Rd Debris Small Taney County Rha-020 - Drainage Ditches - Emergency Protective Measure Small Taney County Taney County	\$5,127.13
1980Emergency Protective MeasuresSmallTaney County1980Ajb-035 - Vegetative DebrisSmallTaney County1980Rha-021 - Brushy Rd DebrisSmallTaney CountyRha-020 - Drainage Ditches - Emergency Protective MeasureSmallTaney County	\$5,807.06
1980Ajb-035 - Vegetative DebrisSmallTaney County1980Rha-021 - Brushy Rd DebrisSmallTaney CountyRha-020 - Drainage Ditches - Emergency Protective MeasureSmallTaney County	
1980 Rha-021 - Brushy Rd Debris Small Taney County Rha-020 - Drainage Ditches - 1980 Emergency Protective Measure Small Taney County	\$10,115.77
Rha-020 - Drainage Ditches - 1980 Emergency Protective Measure Small Taney County	\$3,554.24
1980 Emergency Protective Measure Small Taney County	\$5,411.80
	\$13,061.50
1980 Sed-041 - Meadows Intake Station Large City of Branson	\$369,866.33
Tccf01b - Emergency Protective	
4144 Measures Small Central Taney County Fire	\$1,267.25
4144 TCHO01F Utilities Damage Large City of Hollister	\$82,825.15
4144 Tcho03a Debris Small City of Hollister	\$21,473.00
Tcrba01 - 120 Debris Alternative	
4144 Procedures Small Taney County	\$22,742.27
4144 Tcrb01c Small City of Rockaway Beach	\$9,981.87
4144 Tcho02c Roads & Bridges Small City of Hollister	\$36,464.35
4144 Tcrbc03 - 399 Road System Damage Small Taney County	\$19,579.20
4144 Tcrbc02 - Road System Small Taney County	\$13,431.54
Tcrbc01 - Bridge Abutment Slope	00001=00
4144 Protection Failure Small Taney County	\$38,945.00
Tcrb05c County Maintained Road	MCC 040 = 0
4144 System Small Taney County	エー・ポンド ロオロ たた
4144 Tcrb02a Small City of Rockaway Beach	\$26,049.56
4238 Aad016a - Branson Park - Debris Small City of Branson	\$2,070.36 \$2,070.07 \$37,307.07

4238	Rwm001c-Animal Safari Road	Small	Taney County	\$20,191.71
4238	Msh010b - Area Roadways	Small	Taney County	\$6,849.10
4238	Rwm003c- Victor Church Rd.	Small	Taney County	\$14,598.06
4238	Aad021g Branson Park	Small	City of Branson	\$44,078.11
	Cj0001c - Merriam Woods Roads		and the second second	¥ : 1,0 : 0 : 1 :
4238	Repair	Small	City of Merriam Woods	\$9,235.63
4238	Msh011c-Low Water Crossing	Small	Taney County	\$28,654.15
4238	Rwm004c-County Roads	Small	Taney County	\$10,598.24
4238	Aad020f - Compton WWTF	Small	City of Branson	\$10,000.00
4238	AAD017F - 36 Inch Wastewater Main	Small	City of Branson	\$22,506.14
4238	MSH009C-Roads And Culverts	Small	Taney County	\$10,418.56
4238	Rwm002c-Road Repair	Small	Taney County	\$28,801.64
4238	Msh008c-Area Roadways	Small	Taney County	\$17,650.99
4238	Msh007c-Road Repair	Small	Taney County	\$17,405.73
4238	Msh006a - Paap Debris Removal	Small	Taney County	\$57,891.18
	Lab012e - Maintenance Building			¥ - /
4238	Damage	Small	City of Forsyth	\$5,254.13
4238	Lab014g - Shadow Rock Park	Small	City of Forsyth	\$11,224.12
4238	AAD018C - Roads And Bridges	Small	City of Branson	\$17,115.73
	213SF02G - Asphalt Walking Trail at			
4250	Shadow Rock Park	Small	City of Forsyth	\$59,185.13
			Taney County Regional	. ,
4250	213sf03f - Pump Stations	Small	Sewer District	\$6,512.56
			Western Taney County	. ,
4250	213sf05g- Boat Lift Damages	Small	Fire Protection District	\$7,700.00
4250	213sf01a - Paap Debris Removal	Small	Taney County	\$16,363.52
	213lm01g - Rockaway Beach Public			
4250	Park	Small	City of Rockaway Beach	\$121,221.90
4250	213sf09 G - Parks	Small	City of Branson	\$26,328.00
4250	213sf06a - Paap Debris Removal	Large	City of Branson	\$447,774.25
4250	213sf07b - Emergency Measures	Small	City of Branson	\$39,872.39
4317	St01726 - Hollister Police Department	Small	City of Hollister	\$6,639.51
4317	St01725 - Maurice Lane	Small	City of Hollister	\$34,248.72
4317	Cp01721 - Debris Removal	Small	City of Hollister	\$6,206.97
			Taney County Regional	
4317	St01911 - Road Washouts - Erosion	Small	Sewer District	\$11,621.52
4317	ST01723 - Roads and Bridges	Small	City of Hollister	\$27,483.10
4317	ST01765 - City Hall And Work Shop	Small	Village of Bull Creek	\$46,758.14
	CP02115 - Hidden Valley And Waste			
4317	Water Treatment Plant	Small	City of Hollister	\$2,500.00
4317	St01772 - Roads	Small	Village of Bull Creek	\$29,211.06
4317	ST01773 - Sewer Lines And Manholes	Small	Village of Bull Creek	\$3,856.92
4317	St01724 - Utilities	Small	City of Hollister	\$28,532.23
4317	ST01768 - City Wide Debris	Small	Village of Bull Creek	\$13,229.29
	St01998 - Walking Trail - Shadow			
4317	Rock Park	Small	City of Forsyth	\$8,308.86
4317	St01774 - City Parks	Small	Village of Bull Creek	\$12,304.61
4317	ST01999 - Buildings and Equipment	Small	City of Forsyth	\$5,000.00
4317	Cp02311 - Epm - Donated Resources	Small	City of Branson	\$6,451.17
4317	Cp01565 - Completed Roads	Small	City of Branson	\$17,434.06
	ST01682 - PAAP: Meadows Intake			•
4317	(Rock/Silt)	Large	City of Branson	\$305,322.87
	Cp01685 - Emergency Protective			
4317	Measures	Small	City of Branson	\$79,785.65
	CP01566 - Lift Stations - Potable			
4317	Motor MM Trootmont	Small	City of Branson	\$62,121.06
	Water - WW Treatment			
1017	St01686 - Storm Sewer/Manhole			
4317		Large	City of Branson	\$199,618.00
	St01686 - Storm Sewer/Manhole		City of Branson	\$199,618.00
	St01686 - Storm Sewer/Manhole Erosion St01697 - Park Damage - Work to be Completed		City of Branson	\$199,618.00 \$41,638.10
4317	St01686 - Storm Sewer/Manhole Erosion St01697 - Park Damage - Work to be Completed ST01650 - Taney County Roads Work	Large	City of Branson	\$41,638.10
4317	St01686 - Storm Sewer/Manhole Erosion St01697 - Park Damage - Work to be Completed	Large		-

	Completed			
4317	St01885 - Cliff Drive	Small	City of Branson	\$8,382.87
	CP02678 - PAAP: City-Wide Debris			
4317	(Vegetative/Rock/Silt)	Small	City of Branson	\$45,783.75
4317	0001582 - PAAP 0-30 Days	Small	Taney County	\$40,279.10
4317	0002753 - Paap 31-90 Days	Small	Taney County	\$4,788.39
4317	Cp01646 - Taney County Epm	Small	Taney County	\$22,233.10
4317	0002844 - PAAP 91-180 Days	Small	Taney County	\$4,021.29
	Cp01653 - Taney County Completed			
4317	Work Roads	Large	Taney County	\$167,116.23
	0010071 - Low Water Crossings (Dunn			
4317	& Goodsell Mtn) And	Small	Taney County	\$65,817.86
4317	St02845 - Banner Rd Lwc	Small	Taney County	\$56,068.21
4317	Cp03387 - Dean Rd - Lwc	Small	Taney County	\$13,306.13
	119041 - Shadow Rock Park - Debris			
4451	Removal	Small	City of Forsyth	\$10,126.05
4451	119054 - Shadow Rock Park	Small	City of Forsyth	\$10,417.60
	121048 - Various Location - Box			
4451	Culvert (LWC)	Small	Taney County	\$24,012.20
4451	121687 - Management Costs	Small	City of Forsyth	\$768.14
	121056 - Various Locations - Roads			
4451	Embankment Failure	Small	Taney County	\$16,136.74
4451	120903 - Countywide Debris Removal	Small	Taney County	\$16,222.09
	121061 - Various Locations - Roads			
4451	Surface Washed Out	Small	Taney County	\$50,119.74
4451	127687 - Box Culvert Replacement	Small	Taney County	\$96,409.74
	158986 - Estimated Management			
4451	Costs	Small	Taney County	\$10,145.03
4490	183666 - Vaccination Clinic Support	Small	City of Branson	\$22,389.07
4490	335378 - Hollister Clean Air	Large	N/A	\$1,427,590.00
Total				\$8,674,444.68

Source: Federal Emergency Management Agency

2.2 JURISDICTIONAL PROFILES AND MITIGATION CAPABILITIES

2.2.1 County, City, and Village Jurisdictions

Unincorporated Taney County

Taney County's jurisdiction includes all unincorporated areas within the county boundaries. Taney County is classified as a Class I County in Missouri and is governed by a county commission consisting of a presiding commissioner, an eastern commissioner, and western commissioner.

The County Commission sets broad operating policies, enacts ordinances, and establishes budgets as mandated by state law. The county enters into contracts with other public agencies to ensure the smooth flow of services, including law enforcement, construction and maintenance of public roads and bridges, and the operation of county offices, equipment, and services. The county departments include the Board of Commissioners, County Assessor, County Attorney, County Clerk, County Collector, County Coroner, County Recorder, County Treasurer, and the Road District.

Staff capabilities to mitigate the impact of natural hazards include the County Commission and the Office of Emergency Management.

The roles and responsibilities of the County Emergency Management Department (EMD) include coordinating with local government officials and cooperating private organizations to: 1) prevent avoidable disasters and reduce the vulnerability of the residents to any disaster that may strike; 2) establish capabilities for protecting citizens from the effects of disasters; 3) respond effectively to the

actual occurrence of disasters; and 4) provide for recovery in the aftermath of any emergency involving extensive damage within the county. The EMD also maintains ongoing fire safety and household preparedness materials. The EMD is responsible for the development and maintenance of the Local Emergency Operations Plan.

Table 2.7 provides a full summary of the county's planning and mitigation capabilities.

Table 2.7. Unincorporated Taney County Mitigation Capabilities

Element	Yes, No, N/A	Comments and/or Weblink				
Planning Capabilities						
Comprehensive Plan	Y, 1999					
Builder's Plan	n/a					
Capital Improvement Plan	n/a					
City Emergency Operations Plan	n/a					
County Emergency Operations Plan	Y, 2017	Updated/reviewed annual				
Local Recovery Plan	N	·				
County Recovery Plan	N					
City Mitigation Plan	n/a					
County Mitigation Plan	Y, 2017					
Debris Management Plan	N					
Economic Development Plan	n/a					
Transportation Plan	N					
Land-use Plan	n/a					
Flood Mitigation Assistance (FMA) Plan	n/a					
Watershed Plan	n/a					
Firewise or other fire mitigation plan	Y, 2015	Western fire district				
Critical Facilities Plan (Mitigation/Response/Recovery)	n/a					
Polici	ies/Ordinance					
Zoning Ordinance	Y, 1984					
Building Code	N					
Floodplain Ordinance	Y, 2006					
Subdivision Ordinance	Y, 2012					
Tree Trimming Ordinance	n/a					
Nuisance Ordinance	N					
Stormwater Ordinance	Υ	In Guidance code				
Drainage Ordinance	n/a					
Site Plan Review Requirements	n/a					
Historic Preservation Ordinance	n/a					
Landscape Ordinance	n/a					
	Program					
	Program					
Zoning/Land Use Restrictions	Y,1984					
Codes Building Site/Design	N					
Hazard Awareness Program	N					
National Flood Insurance Program (NFIP)	Υ					
NFIP Community Rating System	n/a					
(CRS) program	- "					
National Weather Service (NWS)	N					
Storm Ready Certification						
Firewise Community Certification	n/a					
Building Code Effectiveness Grading (BCEGs)	N					
ISO Fire Rating	Varies by area					
Economic Development Program	n/a					
Land Use Program	n/a					
Public Education/Awareness	n/a					
Property Acquisition	n/a					
Planning/Zoning Boards	Υ					

Element	Yes, No, N/A	Comments and/or Weblink
Stream Maintenance Program	n/a	
Tree Trimming Program	n/a	
Engineering Studies for Streams	-/-	
(Local/County/Regional)	n/a	
Mutual Aid Agreements	Υ	
	:/Reports/Maps	
		ı
Hazard Analysis/Risk Assessment (City)	n/a	
Hazard Analysis/Risk Assessment (County)	Y	
Evacuation Route Map	N	Developing a dam specific map
Critical Facilities Inventory	N	
Vulnerable Population Inventory	N	
Land Use Map	N	
Staff/Department		Full Time or Part Time?
Building Code Official	N	
Building Inspector	N	
Mapping Specialist (GIS)	Y	
Engineer	n/a	
Development Planner	N	
Public Works Official	n/a	
Emergency Management Coordinator	Y	
NFIP Floodplain Administrator	Y	Planning administrator
Emergency Response Team	n/a	Training aurimistrator
Hazardous Materials Expert	Y	Within hazmat teams
Local Emergency Planning Committee	Y	Within nazmat teams
County Emergency Management Commission	n/a	
Sanitation Department	n/a	
Transportation Department	n/a	
Economic Development Department	n/a	
Housing Department	n/a	
Historic Preservation	n/a	
	Is there a local chapter? Yes	
Non-Governmental Organizations (NGOs)	or No	
American Red Cross	Υ	
Salvation Army	Y	
Veterans Groups	Υ	
Local Environmental Organization	N	
Homeowner Associations	Y	
Neighborhood Associations	N	
Chamber of Commerce	Υ	
Community Organizations	Υ	
(Lions, Kiwanis, etc.		
		Is your jurisdiction able
Financial Resources		to? Yes or No
Apply for Community Development Block Grants		Y
Fund projects thru Capital Improvements funding		Y
Authority to levy taxes for specific purposes		Y
Fees for water, sewer, gas, or electric services		N
Impact fees for new development		N
Incur debt through general obligation bonds		Y
Incur debt through special tax bonds		Y
Incur debt through private activities		N
Withhold spending in hazard prone areas		n/a

City of Branson

The City of Branson is located in the western portion of Taney County. The 2019 population of Branson is 11,416. There has been a 15.9% increase in population from 2010 to 2019. The governing body of the city of Branson is a mayor and four (4) city alderman. City departments include:

- Mayor/City Council
- Building Code Official
- Building Inspector
- Engineer
- Mapping/GIS Specialist
- Public Works Official
- Development Planner
- Emergency Management Coordinator
- NFIP Floodplain Administrator
- Emergency Response Team
- Hazardous Materials Expert
- Local Emergency Planning Committee
- Economic Development Department
- Housing Department
- Historic Preservation

According to the U.S. Census 2019 American Community Survey, 1.8% of the houses in the city were constructed in 1939 or earlier. The median household income was \$46,319 and 16.7% of the families in the city were below the poverty level. Mitigation capabilities for Branson include:

- Twenty-three outdoor warning sirens
- Fire Safety/Prevention Program
- Police Safety Programs
- Recycling and Storm Water Programs
- Everbridge Branson ALERTS

Table 2.8 provides a full summary of the city's planning and mitigation capabilities.

Table 2.8. City of Branson Mitigation Capabilities

Element	Yes, No, N/A	Comments and/or Weblink	
Planning Capabilities			
Comprehensive Plan	Υ	2012	
Builder's Plan	n/a		
Capital Improvement Plan	Y		
City Emergency Operations Plan	Y	2017	
County Emergency Operations Plan	Υ	2017	
Local Recovery Plan	Refer to LEP		
County Recovery Plan	n/a		
City Mitigation Plan	Refer to LEP		
County Mitigation Plan	Υ	2017	
Debris Management Plan	N		
Economic Development Plan	Y		
Transportation Plan	N		
Land-use Plan	Υ	2017	
Flood Mitigation Assistance (FMA) Plan	Υ	2017	

Element	Yes, No, N/A	Comments and/or Weblink
Watershed Plan	n/a	
Firewise or other fire mitigation plan	n/a	
Critical Facilities Plan	n/a	
(Mitigation/Response/Recovery)	n/a	
Po	olicies/Ordinance	
Zoning Ordinance	ΙΥ	
Building Code	Υ	ICC 2018
Floodplain Ordinance	Υ	
Subdivision Ordinance	Υ	
Tree Trimming Ordinance	Υ	
Nuisance Ordinance	N	
Stormwater Ordinance	Υ	
Drainage Ordinance	Υ	
Site Plan Review Requirements	Υ	
Historic Preservation Ordinance	N	
Landscape Ordinance	Υ	
	Program	
Zoning/Land Use Restrictions	Υ	
Codes Building Site/Design	Υ	ICC 2018
Hazard Awareness Program	Υ	HMP
National Flood Insurance Program (NFIP)	Υ	
NFIP Community Rating System	N	
(CRS) program	17	
National Weather Service (NWS)	Y	
Storm Ready Certification		
Firewise Community Certification	N Y	
Building Code Effectiveness Grading (BCEGs) ISO Fire Rating	3	
Economic Development Program	У У	
Land Use Program	Y	
Public Education/Awareness	Ý	
Property Acquisition	Ý	
Planning/Zoning Boards	Ý	
Stream Maintenance Program	Y	
Tree Trimming Program	Y	
Engineering Studies for Streams	V	Pending flow study for
(Local/County/Regional)	Υ	Taneycomo
Mutual Aid Agreements	Υ	
Stud	dies/Reports/Maps	
Hazard Analysis/Risk Assessment (City)	Y	
Hazard Analysis/Risk Assessment (County)	Y	
Evacuation Route Map	N	Pending – Silver Jackets Program
Critical Facilities Inventory	N	-3
Vulnerable Population Inventory	N	
Land Use Map	Υ	
Staff/Department		Full Time or Part Time?
Building Code Official	Y	
Building Inspector	Y	
Mapping Specialist (GIS)	Y	
Engineer	Y	
Development Planner	Y	
Public Works Official	Υ	
Emergency Management Coordinator	Y	
NFIP Floodplain Administrator	Y	CERT
Emergency Response Team	Υ	CERT

Element	Yes, No, N/A	Comments and/or Weblink
Hazardous Materials Expert	Υ	
Local Emergency Planning Committee	Υ	
County Emergency Management Commission	Υ	
Sanitation Department	N	
Transportation Department	N	
Economic Development Department	Υ	Chamber/Taney County Partnership
Housing Department	N	Branson Housing Authority
Historic Preservation	N	Branson Centennial Museum
Non-Governmental Organizations (NGOs)	Is there a local chapter? Yes or No	
American Red Cross	Υ	
Salvation Army	Υ	
Veterans Groups	Υ	
Local Environmental Organization	Y	
Homeowner Associations	Y	
Neighborhood Associations	Y	
Chamber of Commerce	Y	
Community Organizations	Y	
(Lions, Kiwanis, etc.	1	
Financial Resources		Is your jurisdiction able to? Yes or No
Apply for Community Development Block Grants		Υ
Fund projects thru Capital Improvements funding		Υ
Authority to levy taxes for specific purposes		Υ
Fees for water, sewer, gas, or electric services		Υ
Impact fees for new development		Υ
Incur debt through general obligation bonds		Υ
Incur debt through special tax bonds		Υ
Incur debt through private activities		N
Withhold spending in hazard prone areas		N

City of Forsyth

The City of Forsyth is located in central Taney County. The 2019 population of Forsyth is 2,549. There has been a 28.9% increase in population from 2010 to 2019. The governing body of the City of Forsyth is a mayor and six (6) city alderman. City departments include:

- Mayor/City Council
- Building Code Official
- Building Inspector
- Public Works Official
- Emergency Management Coordinator
- Emergency Response Team

According to the U.S. Census 2019 American Community Survey, 2.7% of the houses in the city were constructed in 1939 or earlier. The median household income was \$39,476 and 22.5% of the families in the city were below the poverty level. Mitigation capabilities for Forsyth include:

- Five outdoor warning sirens
- Fire Safety/Prevention Program
- Residential Smoke Alarm
- Senior Weather Alert System

Table 2.9 provides a full summary of the city's planning and mitigation capabilities.

Table 2.9. City of Forsyth Mitigation Capabilities

Element	Yes, No, N/A	Comments and/or Weblink
Planning Capabilities		
Comprehensive Plan	Υ	2003, 2010-2011
Builder's Plan	N	
Capital Improvement Plan	N	
City Emergency Operations Plan	Υ	Severe Weather Operations Plan 2010
County Emergency Operations Plan	Y	
Local Recovery Plan	N	
County Recovery Plan	n/a	
City Mitigation Plan	N	
County Mitigation Plan	n/a	
Debris Management Plan	N	
Economic Development Plan	Y	
Transportation Plan	Y	
Land-use Plan	Ý	
Flood Mitigation Assistance (FMA) Plan	N	
Watershed Plan	N	
Firewise or other fire mitigation plan	N	
Critical Facilities Plan	14	
(Mitigation/Response/Recovery)	N	
	Policies/Ordinance	
Zoning Ordinance	N Y	2024
Building Code		2021
Floodplain Ordinance	N	
Subdivision Ordinance	N	
Tree Trimming Ordinance	N	
Nuisance Ordinance	Y	
Stormwater Ordinance	Υ	
Drainage Ordinance	Υ	
Site Plan Review Requirements	Y	
Historic Preservation Ordinance	Y	
Landscape Ordinance	Υ	
	Program	
Zoning/Land Use Restrictions	N	
Codes Building Site/Design	Υ	
Hazard Awareness Program	Υ	
National Flood Insurance Program (NFIP)	N	
NFIP Community Rating System		
(CRS) program	N	
National Weather Service (NWS)	V	Updated 2019
Storm Ready Certification	Y	-,
Firewise Community Certification	N	
Building Code Effectiveness Grading (BCEGs)	Y	
ISO Fire Rating	4	Updated 2017
Economic Development Program	N	
Land Use Program	N	
Public Education/Awareness	Y	Fire prevention, weather prep,
Property Acquisition	N	
Planning/Zoning Boards	N	
Stream Maintenance Program	N	
	4 134	

Element	Yes, No, N/A	Comments and/or Weblink
Engineering Studies for Streams (Local/County/Regional)	N	
Mutual Aid Agreements	Υ	
· ·	es/Reports/Maps	
Hazard Analysis/Risk Assessment (City)	Υ	2017,2018
Hazard Analysis/Risk Assessment (County)	Υ	2017, 2018
Evacuation Route Map	N	Hwy 160 & Hwy 76
Critical Facilities Inventory	N	
Vulnerable Population Inventory	N	
Land Use Map	Υ	
Staff/Department		Full Time or Part Time?
Building Code Official	Υ	Full time
Building Inspector	Υ	Full time
Mapping Specialist (GIS)	N	
Engineer	N	
Development Planner	N	
Public Works Official	Υ	Full time
Emergency Management Coordinator	Υ	Full time
NFIP Floodplain Administrator	N	
Emergency Response Team	Υ	Full time
Hazardous Materials Expert	N	
Local Emergency Planning Committee	Υ	the city participates in the county LEPC
County Emergency Management Commission	Υ	County LEPC
Sanitation Department	Υ	Full time
Transportation Department	Υ	Full time
Economic Development Department	N	
Housing Department	N	
Historic Preservation	N	
Non-Governmental Organizations (NGOs)	Is there a local chapter? Yes or No	
American Red Cross	N	
Salvation Army	N	
Veterans Groups	N	
Local Environmental Organization	N	
Homeowner Associations	Υ	
Neighborhood Associations	Υ	
Chamber of Commerce	Υ	
Community Organizations (Lions, Kiwanis, etc.	Υ	
Financial Resources		Is your jurisdiction able to? Yes or No
Apply for Community Development Block Grants		Y
Fund projects thru Capital Improvements funding		Υ
Authority to levy taxes for specific purposes		Υ
Fees for water, sewer, gas, or electric services		Υ
Impact fees for new development		Υ
Incur debt through general obligation bonds		Υ
Incur debt through special tax bonds		Υ
Incur debt through private activities		N
Withhold spending in hazard prone areas		N

City of Hollister

The City of Hollister is located in western Taney County on Highway 65. It is a Class 4 City with a Mayor/Board of Aldermen form of government. The council has four Aldermen representing two wards.

From 2010 to 2019, Hollister's population grew from 4,321 to 4,532. City departments/staff include:

- Building Code Official
- Building Inspector
- GIS Specialist
- Public Works Official
- Emergency Management Coordinator
- NFIP Floodplain Administrator
- LEPC
- Economic Development Department

According to the 2019 American Community Survey, 6.9% of houses were built in 1939 or earlier, the median household income is \$40,327, and 17.9% of families live below the poverty line.

The city does not have any warning sirens. They utilize NIXLE, a text/email-based system for messaging warnings to residents. The two FEMA safe rooms are located in Hollister School District buildings.

Table 2.10 provides a full summary of the city's planning and mitigation capabilities.

Table 2.10. City of Hollister Mitigation Capabilities

Element	Yes, No, N/A	Comments and/or Weblink
Planning Capabilities		
Comprehensive Plan	Y, 2016	
Builder's Plan	N	
Capital Improvement Plan	N	
City Emergency Operations Plan	N	
County Emergency Operations Plan	N	
Local Recovery Plan	N	
County Recovery Plan	N	
City Mitigation Plan	N	
County Mitigation Plan	Y, 2017	
Debris Management Plan	N	
Economic Development Plan	Y, 2016	
Transportation Plan	Y, 2017	
Land-use Plan	Y, 2015	
Flood Mitigation Assistance (FMA) Plan	N	
Watershed Plan	N	
Firewise or other fire mitigation plan	N	
Critical Facilities Plan (Mitigation/Response/Recovery)	Y, 2017	
Policie	s/Ordinance	
Zoning Ordinance	Υ	
Building Code	Y, 2018	
Floodplain Ordinance	Y, 2012	
Subdivision Ordinance	Υ	
Tree Trimming Ordinance	Υ	
Nuisance Ordinance	Υ	
Stormwater Ordinance	Υ	
Drainage Ordinance	Υ	
Site Plan Review Requirements	Υ	
Historic Preservation Ordinance	N	
Landscape Ordinance	Υ	
Program		

Element	Yes, No, N/A	Comments and/or Weblink
Zoning/Land Use Restrictions	Υ	
Codes Building Site/Design	Υ	
Hazard Awareness Program	N	
National Flood Insurance Program (NFIP)	Υ	
NFIP Community Rating System	N	
(CRS) program	IN .	
National Weather Service (NWS)	N	
Storm Ready Certification		
Firewise Community Certification	N	
Building Code Effectiveness Grading (BCEGs)	3	
ISO Fire Rating	5	
Economic Development Program	Y	
Land Use Program	N	
Public Education/Awareness	N	
Property Acquisition	N	
Planning/Zoning Boards Stream Maintenance Program	Y	
Tree Trimming Program	N N	
Engineering Studies for Streams	IN	
(Local/County/Regional)	N	
Mutual Aid Agreements	V	
	1 3	
	Reports/Maps	
Hazard Analysis/Risk Assessment (City)	N	
Hazard Analysis/Risk Assessment (County)	N	
Evacuation Route Map	N	
Critical Facilities Inventory Vulnerable Population Inventory	N	
Land Use Map	N N	
Land Ose Wap	IN	
Staff/Department		Full Time or Part Time?
Building Code Official	Y	Full Time or Part Time?
Building Code Official Building Inspector	Υ	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS)	Y Y	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer	Y Y N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner	Y Y N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official	Y Y N N Y	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator	Y Y N N Y Y	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator	Y Y N N Y Y	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team	Y Y N N Y Y Y N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert	Y Y N N Y Y Y N N N N N N N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee	Y Y N N Y Y Y Y Y Y Y Y Y N N N Y	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission	Y Y N N Y Y Y N N N N N N N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee	Y Y N N Y Y Y Y Y Y Y Y Y Y N N Y Y	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department	Y Y N N N Y Y Y Y Y N N N N N N Y Y N N N N Y	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department Housing Department	Y Y N N N Y Y Y Y Y N N N N N N N N N N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department	Y Y N N N Y Y Y Y Y N N N N N Y Y Y	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department Housing Department	Y Y N N N Y Y Y Y Y N N N N Y Y N N Y N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department Housing Department Historic Preservation	Y Y N N N Y Y Y Y N N N N N Y Y N N N N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department Housing Department Historic Preservation Non-Governmental Organizations (NGOs) American Red Cross Salvation Army	Y Y N N N Y Y Y Y N N N N N Y Y N N N N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department Housing Department Historic Preservation Non-Governmental Organizations (NGOs) American Red Cross Salvation Army Veterans Groups	Y Y N N N Y Y Y Y N N N N Y Y N N N N N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department Housing Department Historic Preservation Non-Governmental Organizations (NGOs) American Red Cross Salvation Army Veterans Groups Local Environmental Organization	Y Y N N N Y Y Y Y N N N N Y Y N N N N N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department Housing Department Historic Preservation Non-Governmental Organizations (NGOs) American Red Cross Salvation Army Veterans Groups Local Environmental Organization Homeowner Associations	Y Y N N N Y Y Y Y N N N Y Y N N N N N S S S S	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department Housing Department Historic Preservation Non-Governmental Organizations (NGOs) American Red Cross Salvation Army Veterans Groups Local Environmental Organization Homeowner Associations Neighborhood Associations	Y Y N N N Y Y Y Y N N N N Y Y N N N N N	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department Housing Department Historic Preservation Non-Governmental Organizations (NGOs) American Red Cross Salvation Army Veterans Groups Local Environmental Organization Homeowner Associations Neighborhood Associations Chamber of Commerce	Y Y N N N Y Y Y Y N N N Y Y N N N N N S S S S	Full Time or Part Time?
Building Code Official Building Inspector Mapping Specialist (GIS) Engineer Development Planner Public Works Official Emergency Management Coordinator NFIP Floodplain Administrator Emergency Response Team Hazardous Materials Expert Local Emergency Planning Committee County Emergency Management Commission Sanitation Department Transportation Department Economic Development Department Housing Department Historic Preservation Non-Governmental Organizations (NGOs) American Red Cross Salvation Army Veterans Groups Local Environmental Organization Homeowner Associations Neighborhood Associations	Y Y N N N Y Y Y Y N N N N Y Y N N N N N	Full Time or Part Time?

Element	Yes, No, N/A	Comments and/or Weblink
Financial Resources		Is your jurisdiction able to? Yes or No
Apply for Community Development Block Grants		Υ
Fund projects thru Capital Improvements funding		Υ
Authority to levy taxes for specific purposes		N
Fees for water, sewer, gas, or electric services		Υ
Impact fees for new development		Υ
Incur debt through general obligation bonds		Υ
Incur debt through special tax bonds		Υ
Incur debt through private activities		Υ
Withhold spending in hazard prone areas		N

City of Merriam Woods

The City of Merriam Woods is located in Midwestern Taney County. The 2019 population of Rockaway Beach is 2,210. There has been a 25% increase in population from 2010 to 2019. The governing body of Merriam Woods is a mayor along with six city alderman. City departments include:

- Mayor/City Council
- City Clerk
- Building Code Official
- Building Inspector
- Public Works Official
- Emergency Management Coordinator
- NFIP Floodplain Administrator

According to the U.S. Census 2019 American Community Survey, 0.4% of the houses in the city were constructed in 1939 or earlier. The median household income was \$40,050 and 30.3% of the families in the city were below the poverty level. Mitigation capabilities for Rockaway Beach include:

- One outdoor warning siren
- Mutual aid agreements

Table 2.11 provides a full summary of the city's planning and mitigation capabilities.

Table 2.11. City of Merriam Woods Mitigation Capabilities

Element	Yes, No, N/A	Comments and/or Weblink
Planning Capabilities		
Comprehensive Plan	N	
Builder's Plan	n/a	
Capital Improvement Plan	n/a	
City Emergency Operations Plan	n/a	
County Emergency Operations Plan	n/a	
Local Recovery Plan	n/a	
County Recovery Plan	n/a	
City Mitigation Plan	Υ	
County Mitigation Plan	n/a	
Debris Management Plan	n/a	
Economic Development Plan	n/a	
Transportation Plan	n/a	

Element	Yes, No, N/A	Comments and/or Weblink
Land-use Plan	n/a	
Flood Mitigation Assistance (FMA) Plan	n/a	
Watershed Plan	n/a	
Firewise or other fire mitigation plan	n/a	
Critical Facilities Plan (Mitigation/Response/Recovery)	n/a	
Policie	s/Ordinance	
Zoning Ordinance	Υ	
Building Code	n/a	
Floodplain Ordinance	Υ	
Subdivision Ordinance	n/a	
Tree Trimming Ordinance	N	
Nuisance Ordinance	Υ	
Stormwater Ordinance	N	
Drainage Ordinance	Υ	
Site Plan Review Requirements	Υ	
Historic Preservation Ordinance	N	
Landscape Ordinance	n	
P	rogram	
Zoning/Land Use Restrictions	ΙΥ	T
Codes Building Site/Design	Y	
Hazard Awareness Program	n/a	
National Flood Insurance Program (NFIP)	Y	
NFIP Community Rating System		
(CRS) program	n/a	
National Weather Service (NWS)	,	
Storm Ready Certification	n/a	
Firewise Community Certification	n/a	
Building Code Effectiveness Grading (BCEGs)	N	
ISO Fire Rating	n/a	
Economic Development Program	N	
Land Use Program	N	
Public Education/Awareness	N	
Property Acquisition	Y	
Planning/Zoning Boards	N	
Stream Maintenance Program	n/a	
Tree Trimming Program	N	
Engineering Studies for Streams (Local/County/Regional)	n	
Mutual Aid Agreements	у	
Studies/	Reports/Maps	
Hazard Analysis/Risk Assessment (City)	N	
Hazard Analysis/Risk Assessment (County)	N	
Evacuation Route Map	N	
Critical Facilities Inventory	N	
Vulnerable Population Inventory	N	
Land Use Map	N	
Staff/Department		Full Time or Part Time?
Building Code Official	Y	
Building Inspector	Υ	
Mapping Specialist (GIS)	n/a	
Engineer	N	
Development Planner	N	
Public Works Official	Y	
Emergency Management Coordinator	Y	
NFIP Floodplain Administrator	Y	
Emergency Response Team	Υ	

Element	Yes, No, N/A	Comments and/or Weblink
Hazardous Materials Expert	n/a	
Local Emergency Planning Committee	N	
County Emergency Management Commission	n/a	
Sanitation Department	n/a	
Transportation Department	n/a	
Economic Development Department	n/a	
Housing Department	n/a	
Historic Preservation	n/a	
Non-Governmental Organizations (NGOs)	Is there a local chapter? Yes or No	
American Red Cross	N	
Salvation Army	N	
Veterans Groups	N	
Local Environmental Organization	N	
Homeowner Associations	N	
Neighborhood Associations	N	
Chamber of Commerce	N	
Community Organizations	N	
(Lions, Kiwanis, etc.	11	
Financial Resources		Is your jurisdiction able to?
		Yes or No
Apply for Community Development Block Grants		Υ
Fund projects thru Capital Improvements funding		N
Authority to levy taxes for specific purposes		n/a
Fees for water, sewer, gas, or electric services		Υ
Impact fees for new development		N
Incur debt through general obligation bonds		Υ
Incur debt through special tax bonds		Υ
Incur debt through private activities		Υ
Withhold spending in hazard prone areas		n/a

City of Rockaway Beach

The City of Rockaway Beach is located in Midwestern Taney County. The 2019 population of Rockaway Beach is 872. There has been a 17.5% increase in population from 2010 to 2019. The governing body of the city of Rockaway Beach is a mayor and four (4) city alderman. City departments include:

- Mayor/City Council
- City Clerk
- Building Inspector
- Public Works Official
- NFIP Floodplain Administrator

According to the U.S. Census 2019 American Community Survey, 6.7% of the houses in the city were constructed in 1939 or earlier. The median household income was \$39,643 and 16.9% of the families in the city were below the poverty level. The city has one outdoor warning siren.

Table 2.12 provides a full summary of the city's planning and mitigation capabilities.

Table 2.12. City of Rockaway Beach Mitigation Capabilities

Element	Yes, No, N/A	Comments and/or Weblink			
Planning Capabilities					
Comprehensive Plan	N				
Builder's Plan	Υ				
Capital Improvement Plan	Υ	2010			
City Emergency Operations Plan	N				
County Emergency Operations Plan	N				
Local Recovery Plan	n/a				
County Recovery Plan	n/a				
City Mitigation Plan	Υ				
County Mitigation Plan	Υ				
Debris Management Plan	N				
Economic Development Plan	N				
Transportation Plan	n/a				
Land-use Plan	Υ				
Flood Mitigation Assistance (FMA) Plan	Υ				
Watershed Plan	Υ				
Firewise or other fire mitigation plan	n/a				
Critical Facilities Plan (Mitigation/Response/Recovery) Y				
Poli	icies/Ordinance				
Zoning Ordinance	Υ				
Building Code	Υ				
Floodplain Ordinance	Υ	2016			
Subdivision Ordinance	Υ	2016			
Tree Trimming Ordinance	Υ	2016			
Nuisance Ordinance	Υ				
Stormwater Ordinance	Υ				
Drainage Ordinance	Υ				
Site Plan Review Requirements	Υ	2016			
Historic Preservation Ordinance	n/a				
Landscape Ordinance	Υ	2016			
	Program				
Zoning/Land Use Restrictions	Υ				
Codes Building Site/Design	Υ				
Hazard Awareness Program	Υ				
National Flood Insurance Program (NFIP)	Υ				
NFIP Community Rating System	1-				
(CRS) program	n/a				
National Weather Service (NWS)	n/a				
Storm Ready Certification	n/a				
Firewise Community Certification	N				
Building Code Effectiveness Grading (BCEGs)	n/a				
ISO Fire Rating	n/a				
Economic Development Program	Υ	2010			
Land Use Program	Υ				
Public Education/Awareness	n/a				
Property Acquisition	n/a				
Planning/Zoning Boards	Y				
Stream Maintenance Program	n/a				
Tree Trimming Program	N				
Engineering Studies for Streams (Local/County/Regional)	N				
Mutual Aid Agreements	Υ				
Studi	ies/Reports/Maps				
Hazard Analysis/Risk Assessment (City)	n/a				
	•	•			

Element	Yes, No, N/A	Comments and/or Weblink
Hazard Analysis/Risk Assessment (County)	n/a	
Evacuation Route Map	N	
Critical Facilities Inventory	Υ	
Vulnerable Population Inventory	n/a	
Land Use Map	Y	
Staff/Department		Full Time or Part Time?
Building Code Official	Y	
Building Inspector	Υ	
Mapping Specialist (GIS)	N	
Engineer	N	
Development Planner	Υ	
Public Works Official	Υ	
Emergency Management Coordinator	Υ	
NFIP Floodplain Administrator	Υ	
Emergency Response Team	N	
Hazardous Materials Expert	N	
Local Emergency Planning Committee	Y	
County Emergency Management Commission	n/a	
Sanitation Department	Y	
Transportation Department	N	
Economic Development Department	Y	
Housing Department	Y	
Historic Preservation	Y	
Non-Governmental Organizations (NGOs)	Is there a local chapter? Yes or No	
American Red Cross	Y	
Salvation Army	Y	
Veterans Groups	Y	
Local Environmental Organization	Y	
Homeowner Associations	Y	
Neighborhood Associations	Y	
Chamber of Commerce	Y	
Community Organizations	•	
(Lions, Kiwanis, etc.	Y	
Financial Resources		Is your jurisdiction able to? Yes or No
Apply for Community Development Block Grants		Υ
Fund projects thru Capital Improvements funding	Υ	
Authority to levy taxes for specific purposes	Υ	
Fees for water, sewer, gas, or electric services	Υ	
Impact fees for new development	Υ	
Incur debt through general obligation bonds	Υ	
Incur debt through special tax bonds		Υ
Incur debt through special tax bonds Incur debt through private activities		Y

Village of Bull Creek

The Village of Bull Creek is located in central Taney County. The 2019 population of Bull Creek is 496. There has been a +0.7% increase in population from 2010 to 2019. The governing body of the Village of Bull Creek is a Chair/Board of Trustees form of government. The board has 5 trustees. Village departments include:

- Mayor/City Council
- Building Inspector

- Public Works
- Sanitation Department

According to the U.S. Census 2019 American Community Survey, 0% of the houses in the village were constructed in 1939 or earlier. The median household income was \$27,228 and 30.8% of the families in the city were below the poverty level. Mitigation capabilities for Bull Creek include:

• NFIP Floodplain Administrator

Table 2.13 provides a full summary of the city's planning and mitigation capabilities.

Table 2.13. Village of Bull Creek Mitigation Capabilities

Element	Yes, No, N/A	Comments and/or Weblink			
Planning Capabilities					
Comprehensive Plan	N				
Builder's Plan	N				
Capital Improvement Plan	N				
City Emergency Operations Plan	Υ	2004			
County Emergency Operations Plan	n/a				
Local Recovery Plan	N				
County Recovery Plan	n/a				
City Mitigation Plan	N				
County Mitigation Plan	n/a				
Debris Management Plan	N				
Economic Development Plan	N				
Transportation Plan	n/a				
Land-use Plan	N				
Flood Mitigation Assistance (FMA) Plan	N				
Watershed Plan	N				
Firewise or other fire mitigation plan	n/a				
Critical Facilities Plan (Mitigation/Response/Recovery)	N				
Policie	es/Ordinance				
Zoning Ordinance	Υ	2004			
Building Code	N				
Floodplain Ordinance	Υ	2004			
Subdivision Ordinance	Υ	2004			
Tree Trimming Ordinance	N				
Nuisance Ordinance	Υ	2004			
Stormwater Ordinance	N				
Drainage Ordinance	N				
Site Plan Review Requirements	Υ				
Historic Preservation Ordinance	n/a				
Landscape Ordinance	N				
F	Program				
Zoning/Land Use Restrictions	Υ				
Codes Building Site/Design	Υ				
Hazard Awareness Program	N				
National Flood Insurance Program (NFIP)	Υ				
NFIP Community Rating System	V				
(CRS) program	Υ				
National Weather Service (NWS)	N				
Storm Ready Certification	N				
Firewise Community Certification	N				
Building Code Effectiveness Grading (BCEGs)	N				
ISO Fire Rating	N				

		Comments and/or		
Element	Yes, No, N/A	Weblink		
Economic Development Program	N			
Land Use Program	Y			
Public Education/Awareness	N			
Property Acquisition	N			
Planning/Zoning Boards	N			
Stream Maintenance Program Tree Trimming Program	N Y			
Engineering Studies for Streams	Y			
(Local/County/Regional)	N			
Mutual Aid Agreements	Y			
_	Reports/Maps			
Hazard Analysis/Risk Assessment (City)	N	T T		
Hazard Analysis/Risk Assessment (County)	N			
Evacuation Route Map	N			
Critical Facilities Inventory	N			
Vulnerable Population Inventory	N			
Land Use Map	N			
Staff/Department		Full Time or Part Time?		
Building Code Official	Υ	Village clerk		
Building Inspector	N			
Mapping Specialist (GIS)	N	Toth Engineering		
Engineer	N	Toth Engineering		
Development Planner	N			
Public Works Official	Υ			
Emergency Management Coordinator	Υ			
NFIP Floodplain Administrator	Υ			
Emergency Response Team	n/a			
Hazardous Materials Expert	n/a			
Local Emergency Planning Committee	N			
County Emergency Management Commission	n/a			
Sanitation Department	N			
Transportation Department	N			
Economic Development Department	N			
Housing Department	N			
Historic Preservation	N			
Non-Governmental Organizations (NGOs)	Is there a local chapter? Yes or No			
American Red Cross	n			
Salvation Army	N			
Veterans Groups	N			
Local Environmental Organization	N			
Homeowner Associations	N			
Neighborhood Associations	N			
Chamber of Commerce	N			
Community Organizations	N			
(Lions, Kiwanis, etc.		le vern inniediction obli-		
Financial Resources	Is your jurisdiction able to? Yes or No			
Apply for Community Development Block Grants	Υ			
Fund projects thru Capital Improvements funding	Υ			
Authority to levy taxes for specific purposes	Υ			
Fees for water, sewer, gas, or electric services	Υ			
Impact fees for new development	Υ			
Incur debt through general obligation bonds	Y			
	Incur debt through special tax bonds			
Incur debt through private activities		Y		
Withhold spending in hazard prone areas Source: Data Collection Questionnaire		N		

Summary of Jurisdictional Capabilities

Table 2.14. Mitigation Capabilities Summary Table

CAPABILITIES	Unincorporated Taney County	City of Branson	City of Forsyth	City of Hollister	City of Merriam Woods	City of Rockaway Beach	Village of Bull Creek
Planning Capabilities							
Comprehensive Plan	Y, 1999	Υ	Υ	Y, 2016	N	N	N
Builder's Plan	n/a	n/a	N	N	n/a	Y	N
Capital Improvement Plan	n/a	Υ	N	N	n/a	Υ	N
City Emergency Plan	n/a	Y	Y	N	n/a	N	Y
County Emergency Plan	Y, 2017	Y	Y	N	n/a	N	n/a
City Recovery Plan	N	Refer to LEP	N	N	n/a	n/a	N
County Recovery Plan	N	n/a	n/a	N	n/a	n/a	n/a
City Mitigation Plan	n/a	Refer to LEP	N	N	Υ	Υ	N
County Mitigation Plan	Y, 2017	Y	n/a	Y, 2017	n/a	Y	n/a
Debris Management Plan	N	N	N	N	n/a	N	N
Economic Development Plan	n/a	Y	Y	Y, 2016	n/a	N	N
Transportation Plan	N	N	Y	Y, 2017	n/a	n/a	n/a
Land-use Plan	n/a	Y	Y	Y, 2015	n/a	Y	N
Flood Mitigation Assistance (FMA) Plan	n/a	Υ	N	N	n/a	Υ	N
Watershed Plan	n/a	n/a	N	N	n/a	Y	N
Firewise or other fire mitigation plan	Y, 2015	n/a	N	N	n/a	n/a	n/a
Critical Facilities Plan (Mitigation/Response/Recovery)	n/a	n/a	N	Y, 2017	n/a	Υ	N
Policies/Ordinance							
Zoning Ordinance	Y, 1984	Υ	N	Υ	Υ	Υ	Y
Building Code	N	Υ	Υ	Y, 2018	n/a	Y	N
Floodplain Ordinance	Y, 2006	Υ	N	Y, 2012	Υ	Y	Υ
Subdivision Ordinance	Y, 2012	Υ	N	Υ	n/a	Y	Υ
Tree Trimming Ordinance	n/a	Υ	N	Υ	N	Υ	N
Nuisance Ordinance	N	N	Υ	Υ	Υ	Y	Υ
Storm Water Ordinance	Y	Υ	Υ	Υ	N	Y	N
Drainage Ordinance	n/a	Υ	Υ	Υ	Υ	Υ	N
Site Plan Review Requirements	n/a	Υ	Υ	Υ	Υ	Υ	Υ
Historic Preservation Ordinance	n/a	N	Υ	N	N	n/a	n/a
Landscape Ordinance	n/a	Υ	Y	Y	N	Y	N
Program							
Zoning/Land Use Restrictions	Y,1984	Υ	N	Υ	Υ	Y	Υ
Codes Building Site/Design	N	Υ	Υ	Y	Y	Y	Y

CAPABILITIES	Unincorporated Taney County	City of Branson	City of Forsyth	City of Hollister	City of Merriam Woods	City of Rockaway Beach	Village of Bull Creek
Hazard Awareness Program	N	Y	Υ	N	n/a	Y	N
National Flood Insurance Program (NFIP) Participant	Υ	Y	N	Υ	Y	Υ	Υ
NFIP Community Rating System (CRS) Participating Community	n/a	N	N	N	n/a	n/a	Y
National Weather Service (NWS) Storm Ready	N	Y	Y	N	n/a	n/a	N
Firewise Community Certification	n/a	N	N	N	n/a	N	N
Building Code Effectiveness Grading (BCEGs)	N	Υ	Υ	3	N	n/a	N
ISO Fire Rating	Varies by area	3	4	5	n/a	n/a	N
Economic Development Program	n/a	Υ	N	Υ	N	Y	N
Land Use Program	n/a	Υ	N	N	N	Y	Υ
Public Education/Awareness	n/a	Υ	Υ	N	N	n/a	N
Property Acquisition	n/a	Υ	N	N	Υ	n/a	N
Planning/Zoning Boards	Y	Υ	N	Υ	N	Υ	N
Stream Maintenance Program	n/a	Υ	N	N	n/a	n/a	N
Tree Trimming Program	n/a	Υ	N	N	N	N	Υ
Engineering Studies for Streams (Local/County/Regional)	n/a	Y	N	N	n	N	N
Mutual Aid Agreements	Y	Υ	Υ	У	У	Υ	Y
Studies/Reports/Maps					,		
Hazard Analysis/Risk Assessment (City)	n/a	Υ	Υ	N	N	n/a	N
Hazard Analysis/Risk Assessment (County)	Υ	Υ	Υ	N	N	n/a	N
Evacuation Route Map	N	N	N	N	N	N	N
Critical Facilities Inventory	N	N	N	N	N	Y	N
Vulnerable Population Inventory	N	N	N	N	N	n/a	N
Land Use Map	N	Υ	Υ	N	N	Y	N
Staff/Department				L	L		
Building Code Official	N	Υ	Υ	Υ	Υ	Υ	Y
Building Inspector	N	Y	Y	Y	Y	Y	N
Mapping Specialist (GIS)	Y	Y	N N	Y	n/a	N	N
Engineer	n/a	Y	N	N N	N	N	N
Development Planner	N N	Y	N	N	N	Y	N
Public Works Official	n/a	Y	Y	Y	Y	Y	Y
Emergency Management Coordinator	Y	Y	Y	Y	Y	Y	Y
NFIP Floodplain Administrator	Y	Y	N	Y	Y	Y	Y
Emergency Response Team	n/a	Y	Y	N N	Y	N	n/a
Hazardous Materials Expert	Y	Y	N	N	n/a	N	n/a
Local Emergency Planning Committee	Y	Y	Y	Y	N	Y	N

CAPABILITIES	Unincorporated Taney County	City of Branson	City of Forsyth	City of Hollister	City of Merriam Woods	City of Rockaway Beach	Village of Bull Creek
County Emergency Management Commission	n/a	Y	Y	Y	n/a	n/a	n/a
Sanitation Department	n/a	N	Y	N	n/a	Y	N
Transportation Department	n/a	N	Y	N	n/a	N	N
Economic Development Department	n/a	Y	N	Y	n/a	Υ	N
Housing Department	n/a	N	N	N	n/a	Υ	N
Historic Preservation	n/a	N	N	N	n/a	Y	N
Non-Governmental Organizations (NGOs)							
American Red Cross	Υ	Y	N	N	N	Y	n
Salvation Army	Y	Y	N	N	N	Y	N
Veterans Groups	Υ	Υ	N	N	N	Y	N
Environmental Organization	N	Υ	N	N	N	Y	N
Homeowner Associations	Υ	Υ	Υ	Υ	N	Y	N
Neighborhood Associations	N	Υ	Υ	N	N	Υ	N
Chamber of Commerce	Υ	Υ	Υ	Υ	N	Y	N
Community Organizations (Lions, Kiwanis, etc.	Y	Y	Y	Y	N	Y	N
Financial Resources				<u> </u>	<u> </u>		
Apply for Community Development Block Grants	Y	Y	Y	Y	Y	Y	Υ
Fund projects through Capital Improvements funding	Υ	Y	Y	Y	N	Y	Υ
Authority to levy taxes for specific purposes	Υ	Υ	Υ	N	n/a	Y	Υ
Fees for water, sewer, gas, or electric services	N	Y	Y	Y	Y	Y	Y
Impact fees for new development	N	Υ	Υ	Υ	N	Υ	Υ
Incur debt through general obligation bonds	Υ	Υ	Υ	Υ	Υ	Y	Υ
Incur debt through special tax bonds	Υ	Υ	Υ	Υ	Υ	Υ	Υ
Incur debt through private activities	N	N	N	Υ	Υ	Υ	Υ
Withhold spending in hazard prone areas	n/a	N	N	N	n/a	Υ	N

2.2.2 Special Districts

Taney County Regional Sewer District

The Taney County Regional Sewer District is a regional sewer district serving Taney County. The district provides rules and regulations governing sewer systems within its boundaries. The district consists of a board of trustees appointed by the county commission.

The district periodically sends out informational letters to help educate the public on how sewer systems work and what households can do to eliminate certain problems.

Through the district's capital improvement program, improvements have been made to four duplex lift stations to mitigate the impacts of future flooding events.

Refer to **Table 2.15** for a full summary of the districts planning and mitigation capabilities.

Western Taney County Fire Protection District

Western Taney County Fire Protection District provides fire protection and life safety services for the western portion of Taney County through its 12 stations. It is governed by a 3-person board of directors.

The district provides fire safety programs to the public and fire inspection services for businesses. They are in the process of storing water for fire suppression in the rural areas of their service area. They have a plan in place, but currently lack the funding to implement it.

Refer to **Table 2.15** for a full summary of the districts planning and mitigation capabilities.

Summary of Special District Mitigation Capabilities

Table 2.15. Summary of Special District Mitigation Capabilities

Element	Taney County Regional Sewer District	Western Taney County Fire Protection District
Planning Capabilities		
Capital Improvement Plan	N	Y, 2020
Emergency Operations Plan	n/a	N
Continuity of Operations Plan	N	N
Community Wildfire Protection Plan	Y, 2015	N
Other		
Programs		
Cross-Connection Program	n/a	N
Hydrant Flushing Program	Υ	N
Public Education/Awareness	Υ	Υ
Tree Trimming Program	N	N
Mutual Aid Agreements	Υ	N
Other		
Studies/Reports		
Evacuation Route Map	N	N
Critical Facilities Inventory	N	Υ
Staff/Departments		
	8 full time	Full time GIS specialist
	60 volunteers	Full time engineer
Financial Resources		
Fund projects through Capital Improvement funding	N	Υ
Fees for water, sewer, gas, or electric services	N	Υ
Incur debt through general obligation bonds	N	N

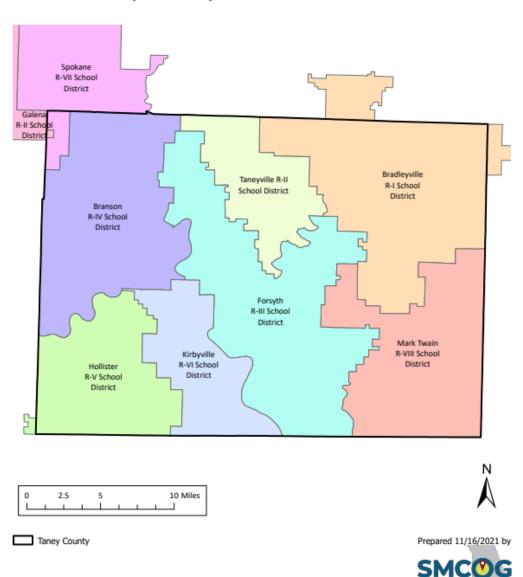
Incur debt through special tax bonds	N	N
Incur debt through private activities	N	N
Withhold spending in hazard prone areas	N	N

2.2.3 Public School District Profiles and Mitigation Capabilities

This section provides general information about the participating school districts in the Plan. While there are nine total public school districts with facilities in Taney County, it should be noted that not all of them participated in this plan. The Spokane School District is a participant in the Christian County HMP, while the Bradleyville School District and Mark Twain School District chose not to participate in this plan. **Figure 2.2** shows the school district boundaries in the county.

Figure 2.2. Taney County School Districts

Taney County Public School Districts



COUNCIL OF GOVERNMENTS

Table 2.16 provides the total enrollment number for each district.

Table 2.16. Taney County School District Enrollment Data

District Name	District Enrolment
Branson R-IV School District	4,462
Forsyth R-III School District	1,123
Hollister R-V School District	1,323
Kirbyville R-VI School District	218
Taneyville R-II School District	148

Source: https://apps.dese.mo.gov/MCDS/Visualizations.aspx?id=22

Branson R-IV

The Branson R-IV School District is governed by a Board of Education consisting of the Board President and six Board members. The district serves 4,462 students.

Each building in the district is equipped with a PA system for emergency alerts. The buildings are also equipped with NOAA Weather Radios. Currently, the district does not have a FEMA designated shelter. Since the last plan update, renovations have been done to the K-3rd section of Buchanan Elementary. Also, a 9th grade center and an activity center have both been added to the high school. The district currently does not have any major constructions, additions, or remodels planned at this time. Enrollment in the district is expected to change little in the next five years.

Refer to **Table 2.17** for a complete summary of the district's mitigation capabilities.

Forsyth R-III

The Forsyth R-III School District is governed by a Board of Education consisting of seven members. The district serves 1,123 students.

Each building in the district is equipped with a PA system for emergency alerts. The buildings are also equipped with NOAA Weather Radios. A storm shelter at the Performing Arts Center can safely shelter the entire student body. Over the next five years, the district has plans to add locker room and restroom facilities at the athletic field. Enrollment is projected to slightly increase by 1-3% over the next five years.

Refer to **Table 2.17** for a complete summary of the district's mitigation capabilities.

Hollister R-V

The Hollister R-V School District is governed by a Board of Education consisting of the Board President and six Board members. The district serves 1,323 students.

Each building in the district is equipped with a PA system for emergency alerts. The buildings are also equipped with NOAA Weather Radios. Since the last plan update, 2 FEMA shelters have been added to the district while 8 classrooms and a storage room have been added to the high school. An agriculture facility, new offices at the middle school, 8 class wing to the early childhood center, and a metal building for the Alt. school have been added as well. Some ongoing projects include installation of bulletproof glass, shatter resistant film, and secure vestibules among other smaller projects. The district currently plans to add both an operation center as well as a cafeteria at the ECC. Enrollment in the district is expected to change little in the next five years, an estimated addition of +1%.

Refer to **Table 2.17** for a complete summary of the district's mitigation capabilities.

Kirbyville R-VI

The Kirbyville R-VI School District is governed by a Board of Education consisting of the Board President and seven Board members. The district serves 218 students.

Each building in the district is equipped with a PA system for emergency alerts. The buildings are also equipped with NOAA Weather Radios. Since the last plan update, two FEMA shelters have been built at both facilities. Other additions to the school include a bus maintenance facility and a concession stand by the baseball field. The district currently plans to construct secure vestibules at both facilities for safety and security. Enrollment in the district is expected to change little in the next five years, +1 or 2%.

Refer to **Table 2.17** for a complete summary of the district's mitigation capabilities.

Taneyville R-II

The Taneyville R-II School District is governed by a Board of Education consisting of the Board President and six Board members. The district serves 148 students.

Each building in the district is equipped with a PA system for emergency alerts. The buildings are also equipped with NOAA Weather Radios. Currently, the district does not have a FEMA designated shelter. The district has had past issues with flooding, having been hit by two 100-year floods in the past five years and has emergency protocols in case of future flooding. They also have a potential sinkhole near their softball field, which they have designated as open space not to be built on. The district currently plans on updating its Master Plan for the next 3-5 years. Enrollment in the district is expected to remain the same over the next five years.

Refer to **Table 2.17** for a complete summary of the district's mitigation capabilities.

Summary of Public School District Capabilities

Table 2.17. Summary of Public School District Mitigation Capabilities

Capability	Branson R-IV	Forsyth R-III	Hollister R-V	Kirbyville R-VI	Taneyville R-II
Planning Elements					
Master Plan/ Date	Yes	Yes	Yes, 2021	Yes	Yes, 2022
Capital Improvement Plan/Date	Yes	Yes	Yes, 2021	Yes, 2021	Yes, 2020
School Emergency Plan / Date	Yes	Yes	Yes, 2021	Yes, 2022	Yes, 2022
Weapons Policy/Date	Yes	Yes	Yes, 2021	Yes	Yes, 1988
Personnel Resources					
Full-Time Building Official (Principal)	Yes	Yes	Yes	Yes	Yes
Emergency Manager	No	Yes	Yes	No	Yes
Grant Writer	No	No	Yes	No	No
Public Information Officer	Yes	No	Yes	No	No
Financial Resources					
Capital Improvements Project Funding	No	Yes	Yes	Yes	Yes
Local Funds	Yes	Yes	Yes	Yes	Yes
General Obligation Bonds	Yes	Yes	Yes	No	Yes
Special Tax Bonds	No	No	Yes	No	No
Private Activities/Donations	No	Yes	Yes	No	Yes
State and Federal Funds/Grants	Yes	Yes	Yes	Yes	Yes
Other					
Public Education Programs	Yes	Yes	Yes	Yes	Yes
Privately or Self- Insured?	Yes	Yes	Yes	Yes	Yes
Fire Evacuation Training	Yes	Yes	Yes	Yes	Yes
Tornado Sheltering Exercises	Yes	Yes	Yes	Yes	Yes
Public Address/Emergency Alert System	Yes	Yes	Yes	Yes	Yes
NOAA Weather Radios	Yes	Yes	Yes	Yes	Yes
Lock-Down Security Training	Yes	Yes	Yes	Yes	Yes
Mitigation Programs	Yes	Yes	Yes	Yes	Yes
Tornado Shelter/Saferoom	No	Yes	Yes	Yes	No
Campus Police	Yes	Yes	Yes	No – Local Police	No

Source: Data Collection Questionnaire

3 RISK ASSESSMENT

RISK ASSESSMENT	3.1
3.1 HAZARD IDENTIFICATION	
3.1.1 Review of Existing Mitigation Plans	
3.1.2 Review Disaster Declaration History	
3.1.3 Research Additional Sources	
3.1.4 Hazards Identified	
3.1.5 Multi-Jurisdictional Risk Assessment	
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3.2.1 Total Exposure of Population and Structures	
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Vulnerability	3.37
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Vulnerability	
Community Comments on Hazard	
Problem Statement	
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Vulnerability	
Community Comments on Hazard	
Problem Statement	
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Problem Statement	
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Community Comments on Hazard	. 3.85
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44 CFR Requirement §201.6(c)(2): [The plan shall include] A risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.

The goal of the risk assessment is to estimate the potential loss in the planning area, including loss of life, personal injury, property damage, and economic loss from a hazard event. The risk assessment process allows communities and school/special districts in the planning area to better understand their potential risk to the identified hazards. It will provide a framework for developing and prioritizing mitigation actions to reduce risk from future hazard events.

This is an update of the previous Taney County Hazard Mitigation Plan adopted on August 21, 2017. According to the U.S. Census Bureau 2019 ACS 5-year population estimate, the population of Taney County is 55,114. This is an 11.74% increase from the 2010 ACS 5-year population estimate of 49,324.

This chapter is divided into four main parts:

- **Section 3.1 Hazard Identification:** Identifies the hazards that threaten the planning area and provides a factual basis for elimination of hazards from further consideration
- Section 3.2 Assets at Risk: Provides the planning area's total exposure to natural hazards, considering critical facilities and other community assets at risk
- Section 3.3 Land Use and Development: Discusses development that has occurred since
 the last plan update and any increased or decreased risk that resulted. This section also
 discusses areas of planned future development and any implications on risk/vulnerability
- Section 3.4 Hazard Profiles and Vulnerability Analysis: Provides more detailed information about the hazards impacting the planning area. For each hazard, there are three sections: 1) Hazard Profile provides a general description and discusses the threat to the planning area, the geographic location at risk, potential Strength/Magnitude/Extent, previous occurrences of hazard events, probability of future occurrence, risk summary by jurisdiction, impact of future development on the risk; 2) Vulnerability Assessment further defines and quantifies populations, buildings, critical facilities, and other community/school or special district assets at risk to natural hazards; and 3) Problem Statement briefly summarizes the problem and develops possible solutions.

3.1 HAZARD IDENTIFICATION

Requirement §201.6(c)(2)(i): [The risk assessment shall include a] description of the type...of all natural hazards that can affect the jurisdiction.

The Plan profiles all natural hazards that can affect Taney County. The natural hazards that can affect the county have been identified in the 2017 Taney County Plan and the 2018 Missouri State Plan. Natural hazards are naturally occurring climatological, hydrological, or geologic events that have a negative effect of people and the built environment. Natural hazards identified include:

- Riverine and Flash Flood
- Dam Failure
- Earthquake
- Land Subsidence/ Sinkholes
- Drought
- Extreme Temperatures
- Severe Thunderstorm/ High Winds/ Lightning/ Hail
- Severe Winter Weather
- Tornado
- Wildfire

3.1.1 Review of Existing Mitigation Plans

The State Plan also includes levee failure. Levee failure was excluded from the mitigation planning process as there are no mapped levees nor associated levee protected areas within or immediately upstream of Taney County.

Human-caused and technological hazards identified in the State Plan include:

- CBRNE Attack
- Civil Disorder
- Cyber Disruption
- Structural and Urban Fires
- Hazardous Materials
- Mass Transportation Accidents
- Nuclear Power Plants
- Public Health Emergencies/Environmental Issues
- Special Events
- Terrorism
- Utility Interruptions and System Failures

In Missouri, local plans customarily include only natural hazards, as only natural hazards are required by federal regulations to be included. The MPC agreed that human-caused and technological hazards are addressed in a Regional Homeland Security Oversight Committee (RHSOC) Threat and Hazard Identification Risk Assessment (THIRA) and that including only natural hazards would meet the needs of local entities participating in the plan update.

3.1.2 Review Disaster Declaration History

From 1976 to present, Taney County has experienced a number of severe storms, severe ice storms, and floods. Federal and/or state declarations may be granted when the severity and magnitude of an event surpasses the ability of a local government to respond and recover. Disaster assistance is supplemental and sequential. When the local government's capacity has been surpassed, a state disaster declaration may be issued, allowing for the provision of state assistance. If the disaster is so severe that both the local and state governments' capacities are exceeded; a federal emergency or disaster declaration may be issued allowing for the provision of federal assistance.

The Robert T. Stafford Disaster Relief and Emergency Assistance Act, (PL 100-707) requires that all requests for a declaration by the president must be made by the governor of the affected state. State and federal officials conduct a Preliminary Damage Assessment (PDA) to show that the disaster is of such severity and magnitude that effective response is beyond state and local capabilities. Based on the governor's request, the president may declare that a major disaster or emergency exists, thus activating federal programs to assist in the response and recovery effort. Not all programs are activated for every disaster. Some declarations will provide only individual assistance or public assistance, while others provide both.

FEMA also issues emergency declarations, which are more limited in scope and do not include the long-term federal recovery programs of major disaster declarations. Determinations for declaration type are based on scale and type of damages and institutions or industrial sectors affected.

Since 1976, Taney County has been included in 23 federal declarations. The most recent occurred on May 3-4, 2020. **Table 3.1** lists the federal FEMA disaster declarations that include Taney County.

Table 3.1. FEMA Disaster Declarations that included Taney County, Missouri, 1976-Present

Disaster Number	Description	Declaration Date	Incident Period	Individual Assistance (IA) Public Assistance
4552	Severe storms, tornadoes, straight-line winds, and flooding	7/9/2020	5/3/2020 – 5/4/2020	PA
4490	COVID-19 pandemic	3/26/2020	1/20/2020 - continuing	IA and PA
3482	Missouri COVID-19	3/13/2020	1/20/2020 - continuing	PA
4451	Severe storms, tornadoes, flooding	6/9/2019	4/29/2019 — 6/6/2019	IA and PA
4317	Severe storms, tornadoes, and flooding	6/2/2017	4/28/2017 – 5/11/2017	IA and PA
4250	Severe storms, tornadoes, straight-line winds, and flooding	1/21/2016	12/23/2015 – 1/9/2016	IA and PA
3374	Severe storms, tornadoes, straight-line winds, and flooding	1/2/2016	12/22/2015 – 1/9/2016	N/A
4238	Severe storms, tornadoes, straight-line winds, and flooding	8/7/2015	5/15/2015 – 6/27/2015	PA
4144	Severe storms, straight-line winds, and flooding	9/6/2013	8/2/2013 – 8/14/2013	PA
3317	Severe winter storm	2/3/2011	1/31/2011 – 2/5/2011	PA
1980	Severe storms, tornadoes, and flooding	5/9/2011	4/19/2011 – 5/6/2011	PA
3303	Severe winter storm	1/30/2009	1/26/2009 – 1/28/2009	PA
1822	Severe winter storm	2/17/2009	1/26/2009 – 1/28/2009	PA

1809	Severe storms, flooding, and a tornado	11/13/2008	9/11/2008 — 9/24/2008	IA and PA		
1773	Severe storms and flooding	6/25/2008	6/1/2008 - 8/13/2008	PA		
1749	Severe storms and flooding	3/19/2008	3/17/2008 - 5/9/2008	PA		
3281	Severe winter storms	12/12/2007	12/8/2007 – 12/15/2007	PA		
1631	Severe storms, tornadoes, and flooding	3/16/2006	3/8/2006 – 3/13/2006	IA and PA		
3232	Hurricane Katrina evacuation	9/10/2005	8/29/2008 - 10/1/2005	PA		
1463	Storms, tornadoes, and flooding	05/06/2003	5/4/2003 - 5/30/2003	IA		
1412	Storms, tornadoes, and flooding	05/06/2002	4/24/2002 — 6/10/2002	IA and PA		
995	Storms and flooding	07/09/1993	6/10/1993 – 10/25/1993	IA and PA		
3017	Drought	9/24/1976	9/24/1976	IA and PA		

Source: Federal Emergency Management Agency, https://www.fema.gov/data-visualization-summary-disaster-declarations-and-grants

3.1.3 Research Additional Sources

A variety of sources were researched for data on natural hazards. Primary sources included FEMA, State Emergency Management Agency (SEMA), National Centers for Environmental Information (NCEI) and National Oceanic and Atmospheric Administration (NOAA). The U.S. Geological Survey (USGS) and the Center for Earthquake Research and Information (CERI) were major sources for earthquake information. The Missouri Department of Natural Resources (MDNR) Dam Safety Division provided information concerning dams and the Missouri Department of Conservation (MDC). Other information sources included county officials; existing city, county, regional and state plans; and information from local officials. The additional sources of data on locations and past impacts of hazards in Taney County include:

- Missouri Hazard Mitigation Plans (2018)
- Previously approved Taney County Hazard Mitigation Plan (2017)
- Federal Emergency Management Agency (FEMA)
- Missouri Department of Natural Resources
- National Drought Mitigation Center Drought Reporter
- US Department of Agriculture's (USDA) Risk Management Agency Crop Insurance Statistics
- National Agricultural Statistics Service (Agriculture production/losses)
- Data Collection Questionnaires completed by each jurisdiction
- State of Missouri GIS data
- Environmental Protection Agency
- Flood Insurance Administration
- Hazards US (Hazus)
- Missouri Department of Transportation
- Missouri Public Service Commission
- National Fire Incident Reporting System (NFIRS)
- National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information (NCEI)
- County and local Comprehensive Plans to the extent available
- County Emergency Management
- County Flood Insurance Rate Map, FEMA
- Flood Insurance Study, FEMA
- SILVIS Lab, Department of Forest Ecology and Management, University of Wisconsin
- U.S. Army Corps of Engineers

- U.S. Department of Transportation
- United States Geological Survey (USGS)

The only centralized source of data for many of the weather-related hazards is the National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information (NCEI). Although it is usually the best and most current source, there are limitations to the data which should be noted. The NCEI documents the occurrence of storms and other significant weather phenomena having sufficient intensity to cause loss of life, injuries, significant property damage, and/or disruption to commerce. In addition, it is a partial record of other significant meteorological events, such as record maximum or minimum temperatures or precipitation that occurs in connection with another event. Some information appearing in the NCEI may be provided by or gathered from sources outside the National Weather Service (NWS), such as the media, law enforcement and/or other government agencies, private companies, individuals, etc. An effort is made to use the best available information but because of time and resource constraints, information from these sources may be unverified by the NWS. Those using information from NCEI should be cautious as the NWS does not guarantee the accuracy or validity of the information.

The NCEI damage amounts are estimates received from a variety of sources, including those listed above in the Data Sources section. For damage amounts, the NWS makes a best guess using all available data at the time of the publication. Property and crop damage figures should be considered as a broad estimate. Damages reported are in dollar values as they existed at the time of the storm event. They do not represent current dollar values.

The database currently contains data as far back as January 1950, as entered by the NWS. Due to changes in the data collection and processing procedures over time, there are unique periods of record available depending on the event type. The following timelines show the different time spans for each period of unique data collection and processing procedures:

- 1. Tornado: From 1950 through 1954, only tornado events were recorded.
- 2. Tornado, Thunderstorm Wind and Hail: From 1955 through 1992, only tornado, thunderstorm wind and hail events were keyed from the paper publications into digital data. From 1993 to 1995, only tornado, thunderstorm wind and hail events have been extracted from the Unformatted Text Files.
- 3. All Event Types (48 from Directive 10-1605): From 1996 to present, 48 event types are recorded as defined in NWS Directive 10-1605.

It should also be noted that injuries and deaths caused by a storm event are reported on an areawide basis. When reviewing a table resulting from an NCEI search by county, the death or injury listed in connection with that county search did not necessarily occur in that county.

3.1.4 Hazards Identified

The natural hazards that may impact or have affected Taney County are profiled below. All hazards do not necessarily affect every jurisdiction participating in the same way. **Table 3.2** provides a summary of the jurisdictions that may be affected by each hazard. An "x" in the table indicates that jurisdiction is affected by the hazard, and a "-" indicates the hazard is not applicable to that jurisdiction.

Table 3.2. Hazards Identified for Each Jurisdiction

Jurisdiction	Dam Failure	Drought	Earthquake	Extreme Temperatures	Flooding (River and Flash)	Land Subsidence/Sinkholes	Severe Winter Weather	Thunderstorm/Lightnin g/Hail/High Wind	Tornado	Wildfire
Unincorporated Taney County	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
City of Branson	X	X	X	X	Χ	X	X	Χ	X	X
City of Forsyth	X	X	X	X	X	-	X	X	X	X
City of Hollister	X	X	X	X	X	X	X	X	X	X
City of Merriam Woods	X	X	Х	X	X	-	X	X	X	X
City of Rockaway Beach	X	X	X	X	X	-	X	X	X	X
Village of Bull Creek	X	Х	Х	Х	Χ	-	Х	Х	Х	X
School Districts										
Branson R-IV	-	-	-	-	X	-	X	X	X	-
Forsyth R-III	-	-	-	-	X	-	X	X	X	-
Hollister R-V	-	-	-	-	X	-	X	X	Х	-
Kirbyville R-VI	-	-	-	-	X	-	X	X	X	-
Taneyville R-II	-	-	-	-	X	-	X	X	X	-
Special Districts										
Western Taney County Fire Protection	-	-	-	-	-	-	-	X	X	X
Taney County Regional Sewer	-	-	X	-	X	X	X	X	X	-

3.1.5 Multi-Jurisdictional Risk Assessment

The risk assessment assesses each participating jurisdiction's vulnerability to each hazard that may affect Taney County. Many of the hazards identified in the risk assessment have the same probability of occurrence throughout the county. The hazards that vary across the county in terms of risk include dam failure, flash/riverine flood, wildfire, and sinkholes/land subsidence. These differences are detailed in each hazard profile under geographic location and vulnerability.

Taney County's climate is fairly uniform throughout the planning area. According to ACS data, from 2010 to 2019 the county has experienced an 13% increase in overall population. Mitigation capabilities of each jurisdiction are profile in section 2.2.

The urbanized areas within the planning area, which have more assets at a greater density, have greater vulnerability to weather-related hazards. However, vulnerability to future development can be mitigated through updated building codes and code enforcement as well as land use planning. These capabilities and resources to mitigate the impact of natural hazards vary across jurisdictions in Taney County. These differences will be discussed in greater detail in the vulnerability sections of each hazard.

3.2 Assets at Risk

This section assesses Taney County's population, structures, critical facilities and infrastructure, and other important assets that may be at risk to hazards. The inventory of assets for each jurisdiction were derived from parcel data from the Taney County Assessor, the Taney County Structures dataset downloaded from Missouri Spatial Data Information Service (MSDIS), and local jurisdiction data collection questionnaires. The Missouri Mitigation Viewer was also referenced to ensure that total counts looked accurate

3.2.1 Total Exposure of Population and Structures

Missouri Spatial Data Information Service (MISDIS) data was used for structure points and paired with Taney County Assessors data for values.

Unincorporated County and Incorporated Cities

In the following three tables, population data is based on 2019 ACS data. Building counts and building exposure values are based on parcel data provided by the State of Missouri Geographic Information Systems (GIS) database and Taney County Assessor.

Contents exposure values were calculated by factoring a multiplier to the building exposure values based on usage type. The multipliers were derived from the Hazus and are defined below in **Table 3.3.** Land values have been purposely excluded from consideration because land remains following disasters, and subsequent market devaluations are frequently short term and difficult to quantify. Another reason for excluding land values is that state and federal disaster assistance programs generally do not address loss of land (other than crop insurance). It should be noted that the total valuation of buildings is based on county assessors' data which may not be current. In addition, government-owned properties are usually taxed differently or not at all, and so may not be an accurate representation of true value. Note that public school district assets and special districts assets are included in the total exposure tables assets by community and county.

Table 3.3 shows the total population, building count, estimated value of buildings, estimated value of

contents, and estimated total exposure to parcels for the unincorporated county and each participating jurisdiction. **Table 3.4** provides the building value exposures for the county and each city in the planning area broken down by usage type. Finally, **Table 3.5** provides the building count total for the county and each participating jurisdiction in the planning area broken out by building usage types (residential, commercial, industrial, and agricultural). To accommodate for mixed-use parcels, the data has been based on the lowest class of use for each parcel (e.g. residential-agricultural mixture is considered residential).

Table 3.3. Maximum Population and Building Exposure by Jurisdiction

Jurisdiction	2019 Annual Population Estimate	Building Count	Building Exposure (\$)	Contents Exposure (\$)	Total Exposure (\$)
Taney County	55,114	13,843	\$2,722,651,000	\$1,560,475,500	\$4,283,126,500
City of Branson	11,416	5,227	\$2,427,376,000	\$1,556,971,500	\$3,984,347,500
City of Forsyth	2,549	1,088	\$227,931,000	\$143,157,000	\$371,088,000
City of Hollister	4,532	1,895	\$373,169,000	\$225,736,500	\$598,905,500
City of Merriam Woods	2,210	836	\$99,453,000	\$53,362,500	\$152,815,500
City of Rockaway Beach	872	534	\$91,041,000	\$50,040,000	\$141,081,000
Village of Bull Creek	496	216	\$37,392,000	\$18,918,500	\$56,310,500
Totals	77,642	23,904	\$6,017,650,000	\$3,630,086,000	\$9,647,736,000

Source: U.S. Bureau of the Census, Annual population estimates/ 5-Year American Community Survey 2019; Building Count and Building Exposure, Missouri GIS Database from SEMA Mitigation Management; Contents Exposure derived by applying multiplier to Building Exposure based on Hazus MH 2.1 standard contents multipliers per usage type as follows: Residential (50%), Commercial (100%), Industrial (150%), Agricultural (100%). For purposes of these calculations, government, school, and utility were calculated at the commercial contents rate.

Table 3.4. Building Values/Exposure by Usage Type

Jurisdiction	Residential	Commercial	Industrial	Agricultural	Total
Taney County	\$2,386,251,000	\$265,791,000	\$61,900,000	\$8,709,000	\$2,722,651,000
City of Branson	\$1,770,952,000	\$620,305,000	\$30,143,000	\$5,976,000	\$2,427,376,000
City of Forsyth	\$176,980,000	\$43,209,000	\$7,432,000	\$310,000	\$227,931,000
City of Hollister	\$305,830,000	\$55,867,000	\$10,965,000	\$507,000	\$373,169,000
City of Merriam Woods	\$93,355,000	\$4,924,000	\$1,174,000	\$0	\$99,453,000
City of Rockaway Beach	\$83,337,000	\$6,236,000	\$1,335,000	\$133,000	\$91,041,000
Village of Bull Creek	\$37,105,000	\$129,000	\$158,000	\$0	\$37,392,000
Totals	\$4,888,514,000	\$1,000,115,000	\$113,386,000	\$15,635,000	\$6,017,650,000

Source: Missouri GIS Database, SEMA Mitigation Management Section

Table 3.5. Building Counts by Usage Type

Jurisdiction	Residential	Commercial	Industrial	Agricultural	Total
Unincorporated Taney County	13,107	535	163	38	13,843
City of Branson	4,474	643	89	21	5,227
City of Forsyth	1,016	60	10	2	1,088
City of Hollister	1,764	100	27	4	1,895
City of Merriam Woods	814	16	6	0	836
City of Rockaway Beach	511	18	4	1	534
Village of Bull Creek	215	0	1	0	216

Source: Missouri GIS Database, SEMA Mitigation Management Section

The number of enrolled students at the participating public-school districts is provided in **Table 3.6** below. Additional information includes the number of buildings, building values (building exposure) and contents value (contents exposure).

Table 3.6. Population and Building Exposure by Jurisdiction-Public School Districts

Public School District	Enrollment	Building Count	Building Exposure (\$)	Contents Exposure (\$)	Total Exposure (\$)
Branson R-IV	4,462	10	\$208,628,907	\$178,811,615	\$387,440,522
Forsyth R-III	1,123	11	\$29,022,518	\$4,702,107	\$33,724,628
Hollister R-V	1,323	7	\$54,631,000	\$6,738,000	\$61,369,000
Kirbyville R-VI	218	3	\$11,851,296	\$2,504,377	\$14,355,673
Taneyville R-II	148	3	\$6,115,829	\$969,270	\$7,085,099

Source: Building enrollment was derived from https://apps.dese.mo.gov/MCDS/Visualizations.aspx?id=22. Exposure value was obtained from the data collection questionnaire.

3.2.2 Critical and Essential Facilities and Infrastructure

This section will include information from the Data Collection Questionnaire and other sources concerning the vulnerability of participating jurisdictions' critical, essential, high potential loss, and transportation/lifeline facilities to identified hazards. Definitions of each of these types of facilities are provided below.

- Critical Facility: Those facilities essential in providing utility or direction either during the response to an emergency or during the recovery operation.
- Essential Facility: Those facilities that if damaged, would have devastating impacts on disaster response and/or recovery.
- High Potential Loss Facilities: Those facilities that would have a high loss or impact on the community.
- Transportation and lifeline facilities: Those facilities and infrastructure critical to transportation, communications, and necessary utilities.

Table 3.7 includes a summary of the inventory of critical and essential facilities and infrastructure in the planning area.

Table 3.7. Inventory of Critical/Essential Facilities and Infrastructure by Jurisdiction

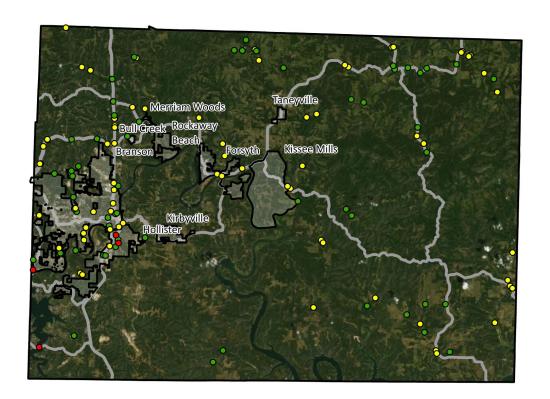
Jurisdiction	Airport Facility	Bus Facility	Childcare Facility	Communications Tower	Electric Power Facility	Emergency Operations	Fire Service	Government	Housing	Shelters	Highway Bridge	Hospital/Health Care	Military	Natural Gas Facility	Nursing Homes	Police Station	Potable Water Facility	Rail	Sanitary Pump Stations	School Facilities	Stormwater Pump Stations	Tier II Chemical Facility	Wastewater Facility
Unincorporated Taney County	8	1	1	19	18	1	11	9	12,031	0	108	4	1	0	0	1	13	0	0	22	0	0	0
City of Branson	0	2	0	1	18	1	7	15	3,258	0	24	12	13	0	0	1	32	0	0	15	0	0	13
City of Forsyth	0	1	1	1	0	1	2	7	817	0	3	5	0	0	0	0	7	0	0	3	0	0	1
City of Hollister	0	0	0	1	0	0	4	1	1,432	0	10	3	0	0	0	0	0	1	0	7	0	0	2
City of Merriam Woods	0	0	0	0	0	0	0	1	706	0	0	0	0	0	0	0	0	0	0	0	0	0	0
City of Rockaway Beach	0	0	0	0	0	0	1	2	283	0	0	0	0	0	0	1	3	0	0	0	0	0	2
Village of Bull Creek	0	0	0	0	0	0		1	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	8	4	2	22	36	3	25	36	18,623	0	145	24	14	0	0	3	55	1	0	47	0	0	18

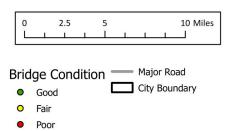
Source: Missouri 2018 State Hazard Mitigation Plan and Hazard Mitigation Viewer; Data Collection Questionnaires; Hazus, etc.

Figure 3.1 is a map that shows the locations of bridges in Taney County included in the National Bridge Inventory (NBI) data set.. The map shows the NBI's classification of each bridge based on structure status.

Figure 3.1. Taney County Bridges

Taney County Bridge Locations









3.2.3 Other Assets

Assessing the vulnerability of the planning area to disaster also requires data on the natural, historic, cultural, and economic assets of the area. This information is important for many reasons.

- These types of resources warrant a greater degree of protection due to their unique and irreplaceable nature and contribution to the overall economy.
- Knowing about these resources in advance allows for consideration immediately following a hazard event, which is when the potential for damages is higher.
- The rules for reconstruction, restoration, rehabilitation, and/or replacement are often different for these types of designated resources.
- The presence of natural resources can reduce the impacts of future natural hazards, such as wetlands and riparian habitats which help absorb floodwaters.
- Losses to economic assets like these (e.g., major employers or primary economic sectors) could have severe impacts on a community and its ability to recover from disaster.

<u>Threatened and Endangered Species</u>: **Table 3.8** displays Federally Threatened, Endangered, Proposed and Candidate Species in the county

Table 3.8. Threatened and Endangered Species in Taney County

Common Name	Scientific Name	Status
Gray Bat	Myotis grisescens	Endangered
Indiana Bat	Myotis sodalist	Endangered
Northern Long-eared Bat	Myotis septentrionalis	Threatened
Tumbling Creek Cavesnail	Antrobia culveri	Endangered
Monarch Butterfly	Danaus plexippus	Candidate

Source: U.S. Fish and Wildlife Service, https://ecos.fws.gov/ipac/ and select 'Get Started" > Step '1 Find Location', choose select by state or county and enter the county name, selecting the appropriate community > follow remaining on-screen instructions.

<u>Natural Resources</u>: The Missouri Department of Conservation (MDC) maintains a database of lands the MDC owns, leases, or manages for public use. **Table 3.9** provides the names and locations of these places in Taney County.

Table 3.9. Parks in Taney County

Park / Conservation Area	Location
Boston Ferry Natural History Area	Approximately 1 mile south of Bull Creek Village on Shary View Road
Branson Forestry Office	Take the Outer Road south from the intersection of Hwy 65 and Hwy 465, left on Rinehart, then left on Claremont
Bull Shoals Lake Management Lands	Bull Shoals Lake ML spreads across southwest Ozark County, eastern Taney County and northern Arkansas
Bull Shoals Lake, Beaver Creek Public Access	From Kissee Mills, take Route O south 2.50 miles to Beaver Creek park.
Bull Shoals Lake, Highway K Public Access	From Kirbyville take Highway 76 east 1.10 miles, then take Route K south approximately 3.70 miles to Highway K Park.
Cooper Creek Access	From Highway 76 in Branson, take Fall Creek Road 1.70 miles, then River Valley Road south 0.10 mile, then Cooper Creek Road east 0.05 mile to the access entrance
Drury-Mincy Conservation Area	From Branson, take Highway 76 east 5 miles, then Route J south 6 miles, and Gunnison Road right 0.75 mile.
Hollister Towersite	From Branson, take Highway 65 south 6 miles, then Highway 265 west 0.75 mile, and Windmill Road south 0.33 mile.

Rockaway Beach Access	Located in Rockaway Beach on Highway 176.
Ruth and Paul Henning Conservation Area	The parking lot for the scenic overlook and trailhead is located on the east side of highway 376 about 3/4 of a mile Northwest from the intersection of highway 376 and 76 Country Boulevard.
Sheperd of the Hills Fish Hatchery	483 Hatchery Road Branson, MO 65616.
The Lewis Family Memorial Conservation Area	From Highway 465/Highway 65/Route F intersection, on the north side of Branson, take Route F east 3.40 miles, then Highway 160 southeast 0.25 mile, then Highway 176 south 0.67 mile to the parking lot on the west side of Highway 176.

Source: https://mdc.mo.gov/discover-nature/places

<u>Historic Resources</u>: The National Register of Historic Places is the official list of registered cultural resources worthy of preservation. It was authorized under the National Historic Preservation Act of 1966 as part of a national program. The purpose of the program is to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. The National Register is administered by the National Park Service under the Secretary of the Interior. Properties listed in the National Register include districts, sites, buildings, structures and objects that are significant in American history, architecture, archeology, engineering, and culture.

There are six registered historic properties in Taney County. **Table 3.10** provides a summary.

Table 3.10. Taney County Properties on the National Register of Historic Places

Property	Address	City	Date Listed
Bonniebrook Homestead	North of Branson on Hwy 65	Walnut Shade	05/29/1997
Branson City Park Historic District	Junction of St. Limas and Oklahoma Street	Branson	08/31/1993
Downing Street Historic District	Downing St. between 3 rd and 4 th Streets	Hollister	12/29/1978
Parnell, Samuel T. and Mary B., House	220 Angels Trail	Branson	04/25/2008
Ross, John, House	West of Branson on MO 76	Branson	07/21/1983
Swan Creek Bridge	North of Forsyth	Forsyth	09/08/1983

Source: National Park Service Register of Historic Places https://www.nps.gov/subjects/nationalregister/index.htm

Economic Resources: Major non-government employers in Taney County are provided in Table 3.11.

Table 3.11. Major Non-Government Employers in Taney County

Employer Name	Main Locations	Product or Service	Employees
Herschend Entertainment	Branson	Entertainment	1,000 – 4,999
Cox Branson Medical Center	Branson	Healthcare	1,000 – 4,999
Kanakuk Camps	Branson	Summercamp	500 - 999
Big Cedar Lodge	Branson	Hospitallity	500 – 999
Tanger Factory Outlet	Branson	Retail	500 - 999
Wyndham Vacation Ownership	Branson	Real Estate/Hospitality	500 - 999
College of the Ozarks	Point Lookout	Higher Education	250 - 499
Cabins at Green Mountain	Branson	Real Estate/Hospitality	250 – 499
Summer Winds Resort Svc LLC	Branson	Real Estate/Hospitality	250 – 499
Walmart Supercenter	Branson	Retail	250 - 499

Source: Data Collection Questionnaires; local Economic Development Commissions, https://missouriebs.weebly.com/employers.html

Agriculture: **Table 3.12** provides a summary of the agriculture-related jobs in Taney County.

Table 3.12. Agriculture-Related Jobs in Taney County

	2017	% change since 2012
Number of farms	395	-5
Land in farms (acres)	108,188	-7
Average size of farm (acres)	274	-2
	Totals	
Market value of products sold	\$13,124,000	+12
Government payments	\$235,000	+12
Farm-related income	\$462,000	-36
Total farm production expenses	\$10,578,000	-8
Net cash farm income	\$3,243,000	+190
	Per farm average	
Market value of products sold	\$33,225	+18
Government payments	\$11,179	+124
Farm-related income	\$6,419	-6
Total farm production expenses	\$26,779	-4
Net cash farm income	\$8,211	+204

Source: 2017 Census of Agriculture,

https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Missouri/index.php

3.3 LAND USE AND DEVELOPMENT

3.3.1 Development Since Previous Plan Update

Table 3.13 provides population growth statistics for participating municipalities in Taney County.

Table 3.13. Taney County Population Growth, 2010-2019

Jurisdiction	Total Population 2010	Total Population 2019	2010-2019 # Change	2000-2019 % Change
Taney County	49,324	55,114	+5,790	+11.7%
City of Branson	9,854	11,416	+1,562	+15.9%
City of Forsyth	1,978	2,549	+571	+28.9%
City of Hollister	4,321	4,532	+211	+4.9%
City of Merriam Woods	1,768	2,210	+442	+25.0%
City of Rockaway Beach	742	872	+130	+17.5%
Village of Bull Creek	217	496	+279	+128.6%

Source: U.S. Bureau of the Census, Decennial Census, Annual Population Estimates, Population Statistics are for entire incorporated areas as reported by the Census bureau

Population growth or decline is generally accompanied by increases or decreases in the number of housing units. Increases in population add to the built environment and increase risk and exposure to hazard events. **Table 3.14** provides the change in numbers of housing units in Taney County from 2010 to 2019. The totals were taken from the American Community Survey 5-year estimates for 2010 and 2019. It should be noted that there is a margin of error associated with these values.

Table 3.14. Change in Housing Units, 2010-2019

Jurisdiction	Housing Units 2010	Housing Units 2019	2010-2019 # Change	2000-2019 % Change
Taney County	20,281	22,272	1991	+9.8%
City of Branson	4,645	4,915	270	+5.5%
City of Forsyth	878	978	100	+11.4%
City of Hollister	1,775	1,854	79	+4.5%
City of Merriam Woods	720	779	59	+8.2%
City of Rockaway Beach	354	416	62	+17.5%
Village of Bull Creek	88	177	89	+101.1%

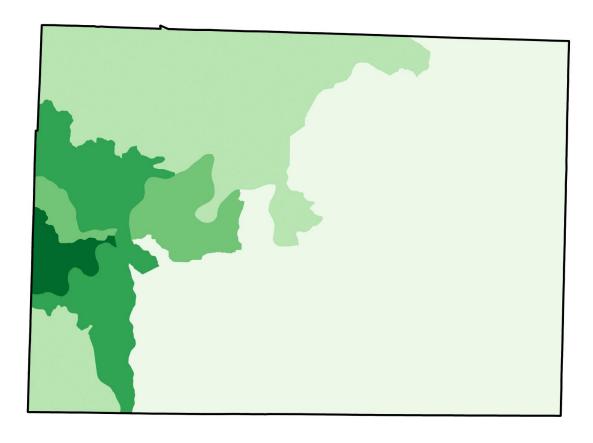
Source: U.S. Bureau of the Census, Decennial Census, American Community Survey 5-year Estimates; Population Statistics are for entire incorporated areas as reported by the U.S. Census Bureau

From 2000 to 2019, Taney County saw a 9.8% increase in the total number of housing units. The growth rate is not expected to change drastically in the near future.

Figure 3.2 and **3.3** are population density maps depicting block group population at the time of the 2010 census and the 2019 American Community Survey.

Figure 3.2. Taney County Population Density (2010)

Taney County 2010 Population Density





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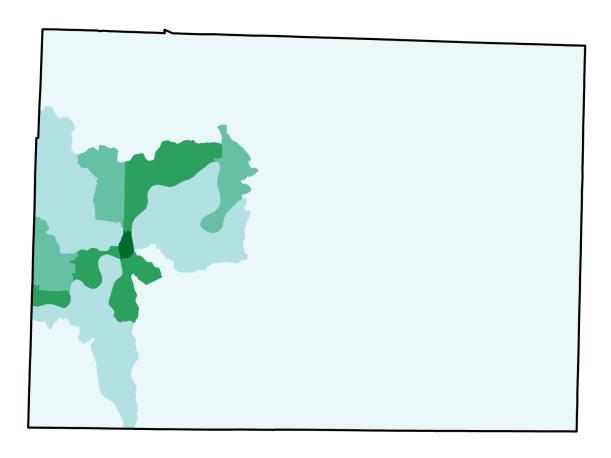
Population per square mile

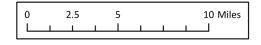
10 - 29 30 - 101 102 - 258 259 - 309 310 - 545



Figure 3.3. Taney County Population Density (2020)

Taney County 2020 Population Density







Population per square mile



Unincorporated Taney County

Taney County has ongoing action items focused on warning systems, awareness programs, and citizen preparedness. Fire safety and household preparedness have been a focus of these programs.

City of Branson

The city of Branson has recently purchased properties as part of their buy-out program for parcels located in flood prone areas. Sewer lift stations elevations were increased, some parks have been restructured to make them less flood prone, and the city is currently working towards a plan to build a flood wall near Compton Wastewater Plant. Branson's fire department and police also engage in public safety and education programs.

City of Forsyth

Forsyth has recently begun repairs to park trails, as well as elevated one of their park lift station to avoid flooding. They also provide programs related to fire safety as well as configuration of smoke alarms and weather radio.

City of Hollister

The city of Hollister has recently purchased private properties in flood prone areas to reduce damages. They have also created new safe rooms and awareness for the public regarding them. They also have ongoing actions to crease fire-resistant construction and mobile hazard alerts throughout the city.

City of Merriam Woods

No major changes or projects in the last five years have been reported by the City of Rockaway Beach.

City of Rockaway Beach

No major changes or projects in the last five years have been reported by the City of Rockaway Beach.

Village of Bull Creek

The village of Bull Creek is focused on introducing awareness programs and improving citizen awareness of hazards in the area. They are also trying to receive NFIP member status.

Branson R-VI School District

Branson R-VI has incorporated mobile hazard alerts for their school district, as well as purchased NOAA radios. They continue to participate in awareness programs and mitigation education within the school for relevant hazards.

Forsyth R-III School District

Since the last update, the district has constructed a FEMA storm shelter able to house all staff and students enrolled within the Performing Arts center.

Hollister R-V School District

Hollister R-V has added a myriad of disaster reduction projects, such as bullet resistant glass and shatter resistant films, new bollards and vestibules, as well as a camera and doorbell. Upgrades to the network security and firewall have also been put in place. Additionally, staff have been trained for disaster with drills for relevant hazards, along with the hiring of an onsite police officer.

Kirbyville R-VI School District

Kirbyville R-VI school district has added FEMA tornado shelters to both of their facilities in 2013 and 2014. They have also seen the addition of NOAA weather radios, and the district participates in awareness programs and mitigation drills/education.

Taneyville R-II School District

The district currently has been making repairs as flooding has been a problem over the past few years.

Routes have been established for staff and students in case of emergency. Along with this, monthly hazard drills are done at the district. Taneyville R-II hopes to build storm shelters and maintains a safety plan that is updated annually.

Taney County Regional Sewer District

Through the district's capital improvement program, Taney County Regional Sewer District has been able to add improvements to multiple lift stations under their jurisdiction. Along with this, the district periodically sends letters to sewer customers to help mitigate and eliminate sewer issues.

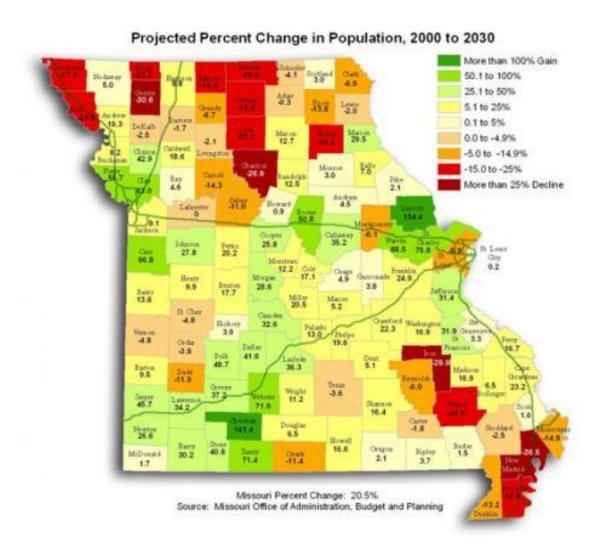
Western Taney County Fire Protection District

The district is attempting to have water storage available for fire suppression, but needs more funding to complete the project. They provide ongoing fire safety and fire inspections for the public.

3.3.2 Future Land Use and Development

Taney County is expected to see an increase in population in the next decade. The Missouri Office of Administration, Budget and Planning has projected that Taney County will see a +71.4% increase in population by 2030. **Figure 3.4** shows the expected population change for each county in the state of Missouri.

Figure 3.4. Projected Percent Change in Population, 2000 to 2030



The remaining discussion in this section provides future growth and development information, where available, relative to each participating jurisdiction. Much of the information included is from the community data collection questionnaires, or where incomplete questionnaires were returned presumptions were made for future development based on past trends.

Taney County

No major development at the county level was noted by Taney County.

City of Branson

The city of Branson is currently working on a new protective wall for the Compton Wastewater Treatment Plant.

City of Forsyth

An area near the Woodland II housing project is being developed. Along with this, expansions to the school district as well as new equipment and repairs at Shoals Bend Park are expected this year.

City of Hollister

No major future development was noted by the city of Hollister.

City of Merriam Woods

No major future development was noted by the city of Merriam Woods.

City of Rockaway Beach

No major development was noted by the city of Rockaway Beach.

Village of Bull Creek

An RV park is planned to be built within a floodplain area.

Branson R-VI School District

No major development changes were noted by Branson R-VI.

Forsyth R-III School District

The district plans to make changes to the locker room and restroom facilities near the athletic field.

Hollister R-V School District

Hollister R-V plans to add an additional cafeteria at the Early Childhood Center, as well as a new operations center.

Kirbyville R-VI School District

Kirbyville R-VI plans to constructure secure vestibules at both school facilities for safety and security.

Taneyville R-II School District

The district is currently in process of revising its CSIP/Master Plan based on needs for the next 5 years. While some construction projects may be discussed, there are no definite plans yet.

3.4 HAZARD PROFILES, VULNERABILITY, AND PROBLEM STATEMENTS

Each hazard will be analyzed individually in a hazard profile. The profile will consist of a general hazard description, location, strength/magnitude/extent, previous events, future probability, a discussion of risk variations between jurisdictions, and how anticipated development could impact risk. At the end of each hazard profile will be a vulnerability assessment, followed by a summary problem statement.

Hazard Profiles

Requirement §201.6(c)(2)(i): [The risk assessment shall include a] description of the...location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

Each hazard identified in **Section 3.1.4** will be profiled individually in this section. The level of information presented in the profiles will vary by hazard based on the information available. With each update of this plan, new information will be incorporated to provide better evaluation and prioritization of the hazards that affect the planning area. Detailed profiles for each of the identified hazards include information categorized as follows:

- **Hazard Description**: This section consists of a general description of the hazard and the types of impacts it may have on a community or school/special district.
- **Geographic Location**: This section describes the geographic areas in the planning area that are affected by the hazard. Where available, maps are used to indicate the specific locations of the planning area that are vulnerable to the subject hazard. For some hazards, the entire planning area is at risk.
- Strength/Magnitude/Extent: This includes information about the strength, magnitude, and extent of a hazard. For some hazards, this is accomplished with description of a value on an established scientific scale or measurement system, such as an EF2 tornado on the Enhanced Fujita Scale. Strength, magnitude, and extent can also include the speed of onset and the duration of hazard events. Describing the strength/magnitude/extent of a hazard is not the same as describing its potential impacts on a community. Strength/magnitude/extent defines the characteristics of the hazard regardless of the people and property it affects.
- **Previous Occurrences**: This section includes available information on historic incidents and their impacts. Historic event records form a solid basis for probability calculations.
- Probability of Future Occurrence: The frequency of recorded past events is used to estimate the likelihood of future occurrences. Probability is determined by dividing the number of recorded events by the number of years of available data and multiplying by 100. This gives the percent chance of the event happening in any given year. For events occurring more than once annually, the probability is reported as 100% in any given year, with a statement of the average number of events annually. For hazards such as drought that may have gradual onset and extended duration, probability is based on the number of months in drought in a given time-period and expressed as the probability for any given month to be in drought.
- Changing Future Conditions Considerations: Changing future conditions are also considered, including the effects of long-term changes in weather patterns and climate on identified hazards.

Vulnerability Assessments

Requirement §201.6(c)(2)(ii): [The risk assessment shall include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.

Requirement §201.6(c)(2)(ii)(A): The plan should describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.

Requirement §201.6(c)(2)(ii)(B):[The plan should describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate.

Requirement §201.6(c)(2)(ii)(C): [The plan should describe vulnerability in terms of] providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

Requirement §201.6(c)(2)(ii): (As of October 1, 2008) [The risk assessment] must also address National Flood Insurance Program (NFIP) insured structures that have been repetitively damaged in floods.

Following the hazard profile for each hazard will be the vulnerability assessment. The vulnerability assessment further defines and quantifies populations, buildings, critical facilities, and other community assets at risk to damages from natural hazards. The vulnerability assessments should be based on the best available data, including data collected from the 2018 State Hazard Mitigation Plan.

The vulnerability assessments in this plan will also be based on:

- Written descriptions of assets and risks provided by participating jurisdictions
- Existing plans and reports
- Personal interviews with planning committee members and other stakeholders
- Other sources as cited.

In the Vulnerability Assessment, the following sub-headings will be addressed:

- Vulnerability Overview: An overall summary of each jurisdiction's vulnerability to the identified
 hazards. The overall summary of vulnerability identifies structures, systems, populations, or
 other community assets as defined by the community that are susceptible to damage and loss
 for hazard events.
- Potential Losses to Existing Development: Includes the types and numbers of building and critical facilities
- Previous and Future Development: This section will include information on how changes in
 development have impacted the community's vulnerability to this hazard. It also includes a
 description of how changes in development that occurred in known hazard prone areas since
 the previous plan have increased or decreased the community's vulnerability, and any
 anticipated future development in the county, and how that would impact hazard risk in the
 County.
- Hazard Summary by Jurisdiction: For hazard risks that vary by jurisdiction, this section will
 provide an overview of the variation and the factual basis for that variation. For example, a

community that has adopted more recent building codes and constructed safe rooms would be less vulnerable to the impact of tornados.

Problem Statements

Each hazard analysis will conclude with a brief summary of the problems created by the hazard in Taney County, and possible ways to resolve those problems. Jurisdiction-specific information in those cases where the risk varies across the County is included.

3.4.1 Flooding (Riverine and Flash)

Hazard Profile

Hazard Description

A flood is partial or complete inundation of normally dry land areas. Riverine flooding is defined as the overflow of rivers, streams, drains, and lakes due to excessive rainfall, rapid snowmelt, or ice. There are several types of riverine floods, including headwater, backwater, interior drainage, and flash flooding. The areas adjacent to rivers and stream banks that carry excess floodwater during rapid runoff are called floodplains. A floodplain is defined as the lowland and relatively flat area adjoining a river or stream. The terms "base flood" and "100- year flood" refer to the area in the floodplain that is subject to a one percent or greater chance of flooding in any given year. Floodplains are part of a larger entity called a basin, which is defined as all the land drained by a river and its branches.

Flooding caused by dam failure is discussed in **Section 3.4.2**. It will not be addressed in this section.

A flash flood occurs when water levels rise at an extremely fast rate as a result of intense rainfall over a brief period, sometimes combined with rapid snowmelt, ice jam release, frozen ground, saturated soil, or impermeable surfaces. Flash flooding can happen in Special Flood Hazard Areas (SFHAs) as delineated by the National Flood Insurance Program (NFIP) and can also happen in areas not associated with floodplains.

Ice jam flooding is a form of flash flooding that occurs when ice breaks up in moving waterways, and then stacks on itself where channels narrow. This creates a natural dam, often causing flooding within minutes of the dam formation.

In some cases, flooding may not be directly attributable to a river, stream, or lake overflowing its banks. Rather, it may simply be the combination of excessive rainfall or snowmelt, saturated ground, and inadequate drainage. With no place to go, the water will find the lowest elevations – areas that are often not in a floodplain. This type of flooding, often referred to as sheet flooding, is becoming increasingly prevalent as development outstrips the ability of the drainage infrastructure to properly carry and disburse the water flow.

Most flash flooding is caused by slow-moving thunderstorms or thunderstorms repeatedly moving over the same area. Flash flooding is a dangerous form of flooding which can reach full peak in only a few minutes. Rapid onset allows little or no time for protective measures. Flash flood waters move at very fast speeds and can move boulders, tear out trees, scour channels, destroy buildings, and obliterate bridges. Flash flooding can result in higher loss of life, both human and animal, than slower developing river and stream flooding.

In certain areas, aging storm sewer systems are not designed to carry the capacity currently needed to handle the increased storm runoff. Typically, the result is water backing into basements, which damages mechanical systems and can create serious public health and safety concerns. This

combined with rainfall trends and rainfall extremes all demonstrate the highly probable, yet generally unpredictable nature of flash flooding in Taney County.

Although flash floods are somewhat unpredictable, there are factors that can point to the likelihood of flash floods occurring. Weather surveillance radar is being used to improve monitoring capabilities of intense rainfall. This, along with knowledge of watershed characteristics, modeling techniques, monitoring, and advanced warning systems, has increased the warning time for flash floods.

Geographic Location

Riverine flooding is most likely to occur in Special Flood Hazard Areas (SFHAs) where the 100-year floodplain has been mapped. According to NCEI storm event data from 2001-2020, there were 86 flash flood events and 32 flood events recorded in the county. These events are typically regional in nature; however, flash floods can be contained to one area, specifically portions of highways or roads. **Figure 3.5** through **Figure 3.11** are mapped SFHAs for participating jurisdictions and unincorporated Taney County, with critical facilities identified.

Figure 3.5. Taney County SFHA

Taney County Special Flood Hazard Area



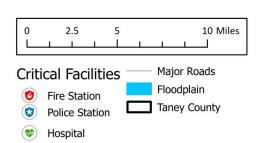




Figure 3.6. Branson SFHA

Branson Special Flood Hazard Area

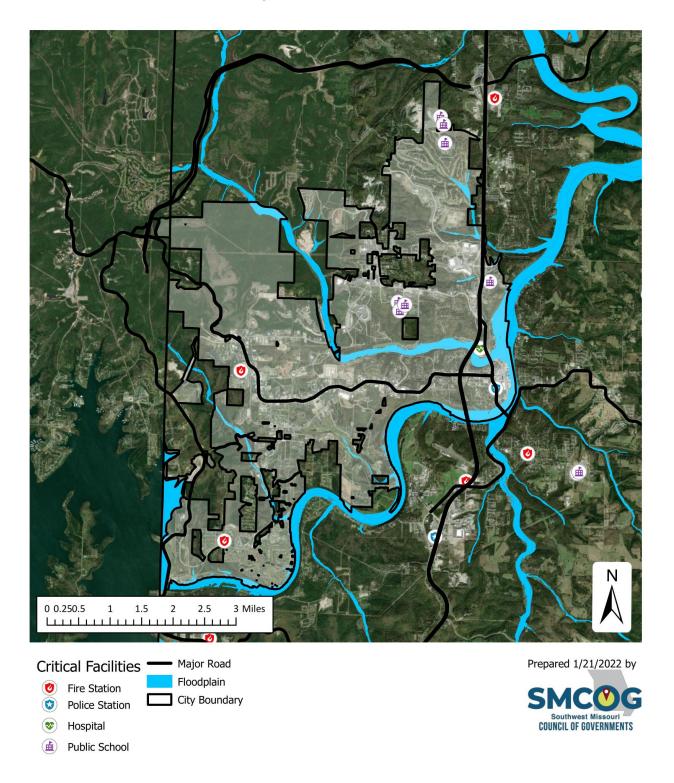


Figure 3.7. Forsyth SFHA

Forsyth Special Flood Hazard Area

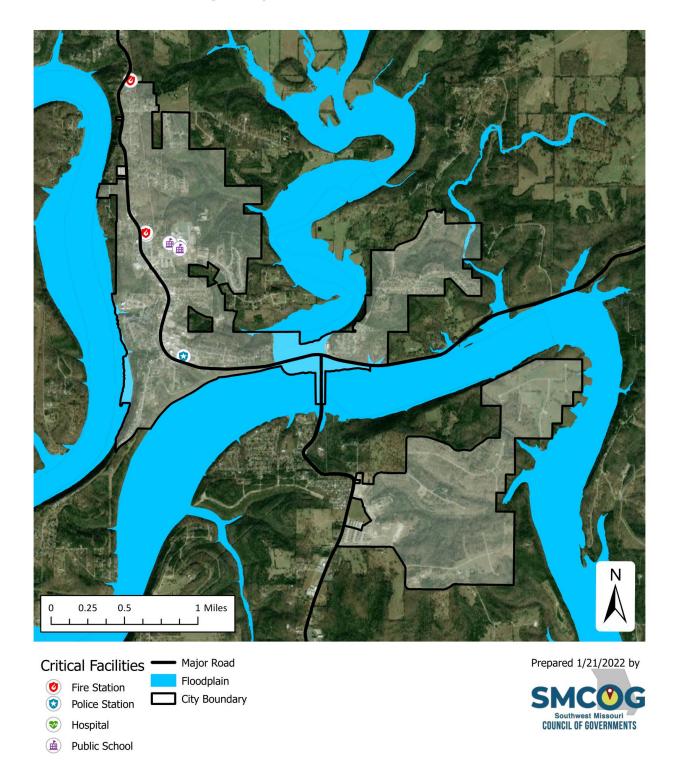


Figure 3.8. Hollister SFHA

Hollister Special Flood Hazard Area

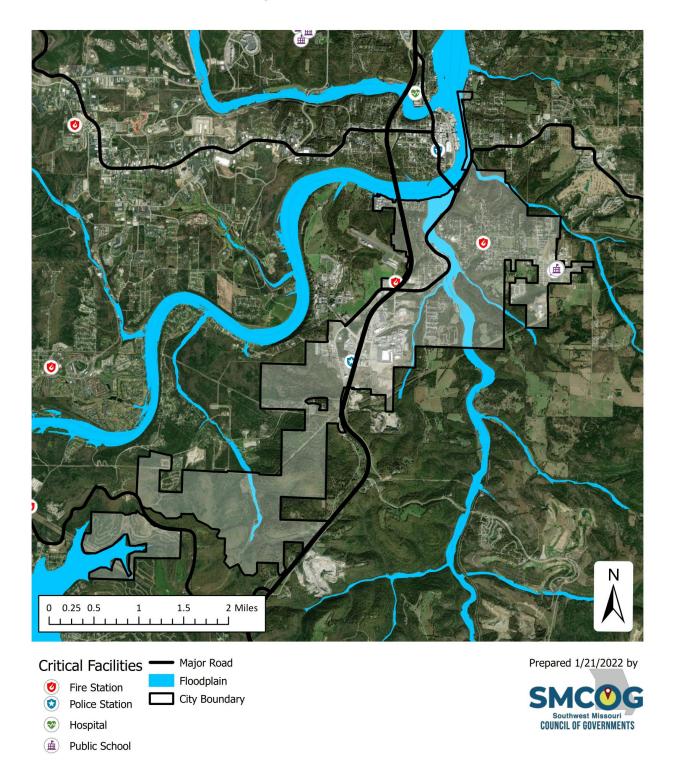


Figure 3.9. Merriam Woods SFHA

Merriam Woods Special Flood Hazard Area

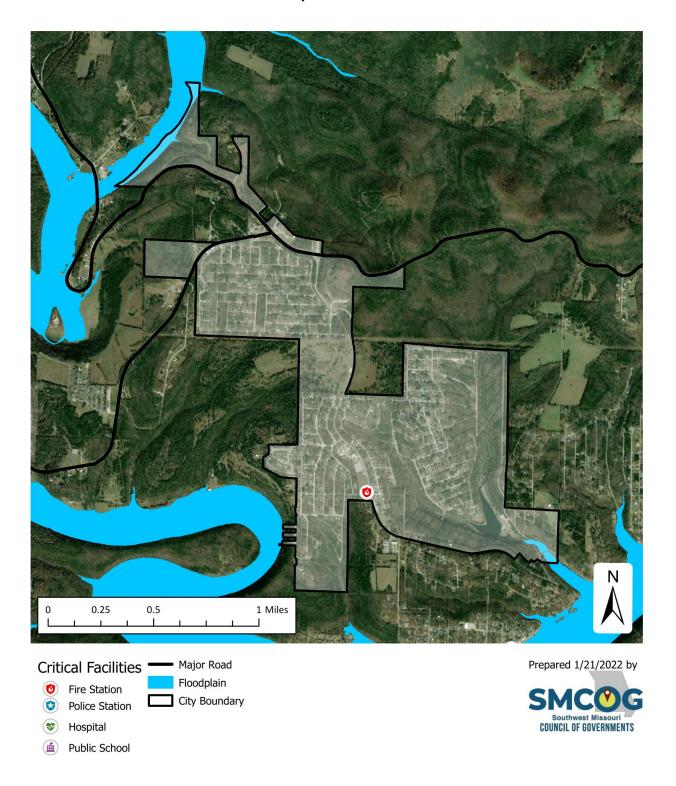


Figure 3.10. Rockaway Beach SFHA

Rockaway Beach Special Flood Hazard Area

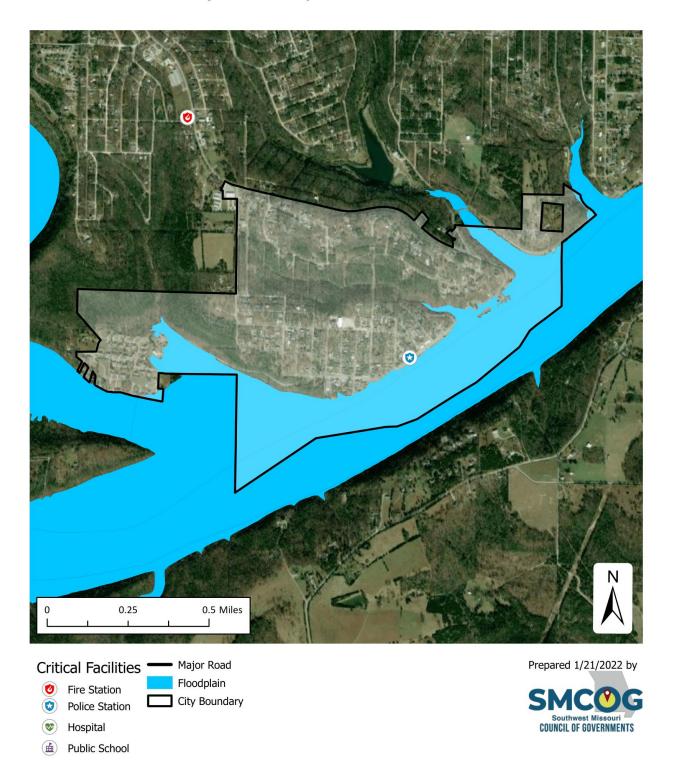
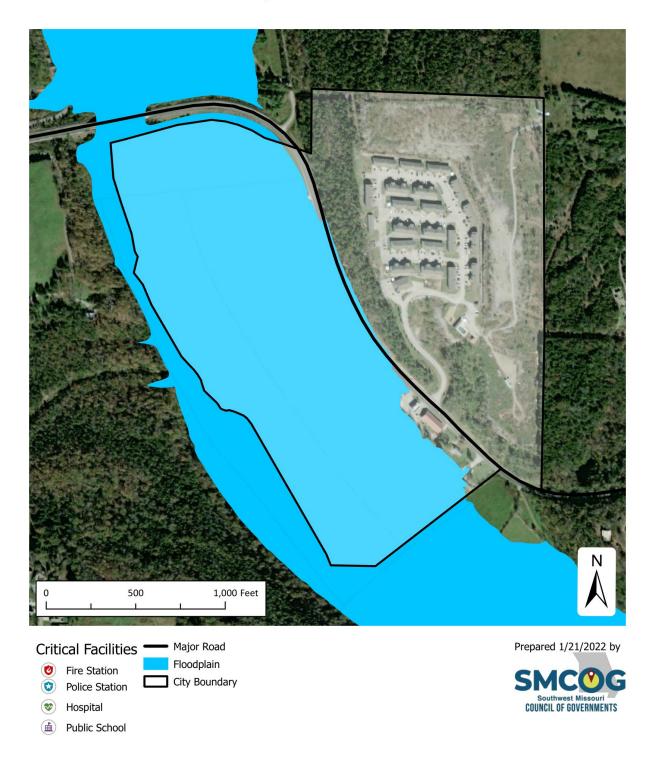


Figure 3.11. Bull Creek SFHA

Bull Creek Special Flood Hazard Area



Flash flooding events pose the most pervasive hazard of the two flood types in the county due to permeability of soils, slopes, increasing urban development, and an extensive network of streams and rivers. Sustained rainfall or downpours at the rate of one inch per hour have caused street flooding in incorporated areas and made a significant number of low-water crossings impassable. Flash flooding occurs in the floodplain while low-lying areas in all jurisdictions are susceptible to flash floods outside the 100-year floodplain. They also occur in areas without adequate drainage to carry away the amount of water that falls during intense rainfall events.

Table 3.15 shows all flood events within the county while Table 3.16 shows all flash flood events.

Table 3.15. Taney County NCEI Flood Events by Location, 2001-2020

Location	# of events
Taney County	25
Branson	5
Hollister	1
Total	31

Source: National Centers for Environmental Information https://www.ncdc.noaa.gov/stormevents/

The NCEI storm event data lists flash flood events according to the nearest community or place. Most of these events cover larger areas than the smaller geographic areas reported in the data. Although some events may not be inside the corporate limits of the community identified in the narrative, they are in such proximity that the community named would be the most affected by impassible roads. It is safe to assume that numerous low water crossings would be impacted by heavy rains that exacerbate flash flooding across the county. In addition, multiple records are related to the same event and vice versa

Table 3.16. Taney County NCEI Flash Flood Events by Location, 2001-2020

Location	# of events
Taney County	49
Branson	23
Forsyth	6
Hollister	3
Rockaway Beach	4
Total	85

Source: National Centers for Environmental Information https://www.ncdc.noaa.gov/stormevents/

Strength/Magnitude/Extent

Missouri has a long and active history of flooding over the past century, according to the 2018 State Hazard Mitigation Plan. Flooding along Missouri's major rivers generally results in slow-moving disasters. River crest levels are forecast several days in advance, allowing communities downstream sufficient time to take protective measures, such as sandbagging and evacuations. Nevertheless, floods exact a heavy toll in terms of human suffering and losses to public and private property. By contrast, flash flood events in recent years have caused a higher number of deaths and major property damage in many areas of Missouri.

According to the U.S. Geological Survey, two critical factors affect flooding due to rainfall: rainfall duration and rainfall intensity – the rate at which it rains. These factors contribute to a flood's height, water velocity and other properties that reveal its magnitude.

National Flood Insurance Program (NFIP) Participation

Table 3.17 provides details on NFIP participating for communities in Taney County. **Table 3.18** shows

the number of policies in force, amount of insurance in force, number of closed losses, and total payments, where applicable.

Table 3.17. NFIP Participation in Taney County

Community ID	Community Name	NFIP Participant (Y/N/Sanctioned)	Current Effective Map Date	Regular- Emergency Program Entry Date
290435	Taney County	Υ	03/15/12	04/01/04
290436	Branson	Υ	03/15/12	10/26/76
290731	Forsyth	S	03/15/12	02/07/76
290437	Hollister	Υ	03/15/12	03/18/85
290069	Merriam Woods	Υ	03/15/12	09/26/06
290438	Rockaway Beach	Υ	03/15/12	03/01/00
290916	Bull Creek	Υ	03/15/12	09/30/97

Source: NFIP Community Status Book https://www.fema.gov/cis/MO.html

The City of Forsyth was sanctioned in 1976. Since then, the city has decided not to re-enter the NFIP due to limited floodplain exposure and a lack of resources needed enforce floodplain requirements.

Table 3.18. NFIP Policy and Claim Statistics as of Date

Community Name	Policies in Force	Insurance in Force	Closed Losses	Total Payments
Taney County	112	\$24,496,200.00	188	\$12,473,390.10
City of Branson	255	\$60,996,400.00	110	\$4,453,737.17
City of Forsyth	-	-	-	-
City of Hollister	7	\$1,606,100.00	46	\$919,803.12
City of Merriam Woods	-	-	-	-
City of Rockaway Beach	56	\$9,007,400.00	26	\$197,201.52
City of Bull Creek	5	\$638,500.00	27	\$496,266.59
Total	435	\$96,744,600.00	397	\$18,540,398.50

Repetitive Loss

Repetitive Loss Properties are those properties with at least two flood insurance payments of \$1,000 or more in a 10-year period. According to the Flood Insurance Administration, jurisdictions included in the planning area have a combined total of 57 repetitive loss properties. As of April 2022, 5 properties have been mitigated.

Table 3.19. Taney County Repetitive Loss Properties

Jurisdiction	# of Properties	# Mitigated	Building Payments	Content Payments	Total Payments	Average Payment	# of Losses
Taney County	33	0	\$4,469,198.17	\$509,488.99	\$4,978,687.16	\$64,658.27	77
City of Branson	13	3	\$890,800.09	\$55,023.50	\$945,823.59	\$28,661.32	33
City of Hollister	3	2	\$132,256.01	\$12,518.87	\$144,774.88	\$18,096.86	8
City of Rockaway Beach	3	0	\$70,278.44	\$0.00	\$70,278.44	\$11,713.07	6
Village of Bull Creek	5	0	\$138,548.06	\$34,371.62	\$172,919.68	\$17,291.97	10

Source: Flood Insurance Administration as of April 2022

Severe Repetitive Loss (SRL)

A SRL property is defined it as a single family property (consisting of one-to-four residences) that is covered under flood insurance by the NFIP; and has (1) incurred flood-related damage for which four or more separate claims payments have been paid under flood insurance coverage with the amount of each claim payment exceeding \$5,000 and with cumulative amounts of such claims payments

exceeding \$20,000; or (2) for which at least two separate claims payments have been made with the cumulative amount of such claims exceeding the reported value of the property. According to the Flood Insurance Administration, there are 23 SRL properties in Taney County, three of which have been mitigated. **Table 3.20** provides details.

Table 3.20. Taney County Severe Repetitive Loss Properties

Jurisdiction	# of Properties	# Mitigated	Building Payments	Content Payments	Total Payments	Average Payment	# of Losses
Taney County	13	0	\$6,041,538.10	\$567,974.01	\$6,609,512.11	\$134,888.00	49
City of Branson	8	3	\$1,785,647.13	\$196,357.66	\$1,982,004.79	\$68,344.99	29
City of Hollister	1	0	\$90,000.91	\$0.00	\$90,000.91	\$22,500.23	4
City of Rockaway Beach	1	0	\$52,212.57	\$0.00	\$52,212.57	\$7,458.99	7

Source: Flood Insurance Administration as of April 2022

Previous Occurrences

Table 3.21 and **Table 3.22** reflect storm event data for riverine flooding and flash flood events in Taney County since 2001. There were 31 riverine flood events and 85 flash flood events resulting in \$32,625,000 in property damages.

Table 3.21. NCEI Taney County Flash Flood Events Summary, 2001-2020

Year	# of Events	# of Deaths	# of Injuries	Property Damages	Crop Damages
2001	1	0	0	\$0	\$0
2002	2	0	0	\$0	\$0
2003	1	0	0	\$0	\$0
2004	2	0	0	\$0	\$0
2005	2	0	0	\$5,000	\$0
2006	2	0	0	\$0	\$0
2007	4	0	0	\$0	\$0
2008	9	0	0	\$5,640,000	\$0
2009	2	0	0	\$0	\$0
2010	1	0	0	\$0	\$0
2011	7	0	0	\$10,000,000	\$0
2012	0	0	0	\$0	\$0
2013	4	0	0	\$1,000,000	\$0
2014	0	0	0	\$0	\$0
2015	13	0	0	\$1,860,000	\$0
2016	4	0	0	\$100,000	\$0
2017	14	3	0	\$10,550,000	\$0
2018	1	0	0	\$0	\$0
2019	8	2	0	\$0	\$0
2020	8	0	0	\$10,000	\$0
Totals	85	5	0	\$29,165,000	\$0

Source: NCEI https://www.ncdc.noaa.gov/stormevents/

Table 3.22. NCEI Taney County Riverine Flood Events Summary, 2001-2020

Year	# of Events	# of Deaths	# of Injuries	Property Damages	Crop Damages
2001	1	0	0	\$0	\$0
2002	4	0	0	\$400,000	\$0
2003	0	0	0	\$0	\$0
2004	2	0	0	\$0	\$0
2005	1	0	0	\$0	\$0
2006	0	0	0	\$0	\$0

2007	0	0	0	\$0	\$0
2008	3	0	0	\$0	\$0
2009	0	0	0	\$0	\$0
2010	1	0	0	\$0	\$0
2011	0	0	0	\$0	\$0
2012	0	0	0	\$0	\$0
2013	1	0	0	\$0	\$0
2014	0	0	0	\$0	\$0
2015	3	0	0	\$3,050,000	\$0
2016	0	0	0	\$0	\$0
2017	2	0	0	\$0	\$0
2018	3	0	0	\$0	\$0
2019	3	0	0	\$0	\$0
2020	7	1	0	\$10,000	\$0
Total	31	1	0	\$3,460,000	\$0

Source: NCEI https://www.ncdc.noaa.gov/stormevents/

Probability of Future Occurrence

There were a total of 116 flood events reported in Taney County from 2001 to 2020. Of the total, 31 were riverine floods. In this 10-year time-period, there were 8 years without a riverine flood and 17 years without any property or crop damage. This equates to a 60% probability for a riverine flood in any given year and a 15% probability that a damaging event will occur. Based on the number of events and years, the average number of riverine flood events is 1.6 per year and the average amount of damage caused is \$173,000. It should be noted that the vast majority of damage (\$3,050,000) was caused in one year (2015).

During the same time-period, there were 85 flash floods reported in the county. These floods occurred in 18 of the 20 years, giving an 90% probability of occurrence in any given year. Damages occurred in 8 years, giving a 40% probability of damage occurring in any given year. The average amount of flash floods per year was 4.3 and the average cost of damages was \$1,458,250. It should be noted that the vast majority of damage (\$20,550,000) was caused in two years (2011 and 2017).

Changing Future Conditions Considerations

With changing climate conditions comes more uncertainty and less predictability for hazard events. An overall increasing global temperature is likely to lead to increased precipitation and intense rainstorms. Over the last fifty-years, the average annual precipitation in most of the Midwest has increased by 5-10%; however, rainfall during the four wettest days of the year has increased nearly 35%. The amount of water flowing in most streams during the worst flood of the year has increased by more than 20%.

The National Climate Assessment states that extreme rainfall events and flooding have increased in the last century and that those trends are expected to continue. Heavy rain events are likely to cause erosion, diminished water quality, and negative impacts on transportation, agriculture, human health, and infrastructure

Vulnerability

Vulnerability Overview

Flooding presents a danger to life and property, often resulting in injuries, and in some cases, fatalities. Floodwaters themselves can interact with hazardous materials. Hazardous materials, such as bulk propane tanks, stored in large containers could break loose or puncture as a result of flood activity. When this happens, evacuation of citizens is necessary.

Public health concerns may result from flooding, requiring disease and injury surveillance. Community sanitation to evaluate flood-affected food supplies may also be necessary. Private water and sewage sanitation could be impacted, and vector control (for mosquitoes and other entomology concerns) may be necessary.

When roads and bridges are inundated by water, damage can occur as the water scours materials around bridge abutments and gravel roads. Poor conditioned bridges identified in **Figure 3.1** show specific locations that might be more vulnerable to high- or fast-moving floods. Floodwaters can also cause erosion undermining roadbeds. In some instances, steep slopes that are saturated with water may cause mud or rockslides onto roadways. These damages can cause costly repairs for state, county, and city road and bridge maintenance departments. When sewer back-up occurs, this can result in costly clean-up for home and business owners as well as present a health hazard.

Potential Losses to Existing Development

Flood loss estimates were developed by selecting all parcels located in a floodplain. Building counts of the selected parcels were then sorted by participating jurisdictions and type. While some areas of the selected parcels may not be immediately adjacent to a floodplain, they have been included to take into account the potential damages from flash flooding. **Table 3.23** presents the building counts for each type of use that fall within a floodplain for each participating jurisdiction.

Table 3.23. Building Counts by Jurisdiction

Jurisdiction	Residential	Commercial	Agriculture	Industrial
Taney County	135	0	0	0
Branson	61	0	0	0
Forsyth	1	0	0	0
Hollister	34	0	0	0
Merriam Woods	0	0	0	0
Rockaway Beach	9	0	0	0
Bull Creek	12	0	0	0
Total	255	0	0	0

The total exposure for structures and contents by building type and jurisdiction is provided in **Table 3.24**. Losses were estimated by adding a 5% damage factor to the total assessed value of all structures in the jurisdiction

Table 3.24. Total Flood Exposure and Estimated Losses by Jurisdiction

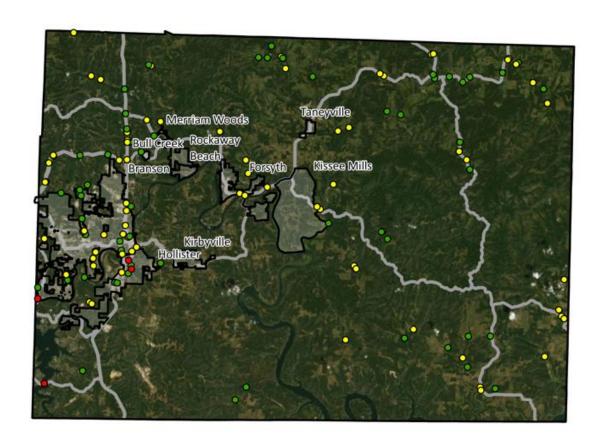
Jurisdiction	Residential	Commercial	Industrial	Agriculture	Total
Taney County	\$119,312,550.00	\$13,289,550.00	\$3,095,000.00	\$435,450.00	\$136,132,550.00
Branson	\$88,547,600.00	\$31,015,250.00	\$1,507,150.00	\$298,800.00	\$121,368,800.00
Forsyth	\$8,849,000.00	\$2,160,450.00	\$371,600.00	\$15,500.00	\$11,396,550.00
Hollister	\$15,291,500.00	\$2,793,350.00	\$548,250.00	\$25,350.00	\$18,658,450.00
Merriam Woods	\$4,667,750.00	\$246,200.00	\$58,700.00	\$0.00	\$4,972,650.00
Rockaway Beach	\$4,166,850.00	\$311,800.00	\$66,750.00	\$6,650.00	\$4,552,050.00
Bull Creek	\$1,855,250.00	\$6,450.00	\$7,900.00	\$0.00	\$1,869,600.00
Total	\$242,690,500.00	\$49,823,050.00	\$5,655,350.00	\$781,750.00	\$298,950,650.00

Low Water Crossings

Damage to low water crossings due to flooding is a significant problem for communities. **Figure 3.12** shows the locations and conditions of all crossings in Taney County. Many of these crossings are repeatedly damaged during heavy rain events and need substantial improvements or upgrades in order to increase resiliency towards flooding.

Figure 3.12. Taney County Low Water Crossing Conditions

Taney County Bridge Locations





Impact of Previous and Future Development

Future development could impact flash and riverine flooding in Taney County. Development in low-lying areas near rivers and streams or where interior drainage systems are not adequate to provide drainage during heavy rainfall events will be at risk to flash flooding. Future development would also increase impervious surfaces causing additional water run-off and drainage problems during heavy rainfall events. All jurisdictions in the county with the exception of Forsyth, Kirbyville, and Taneyville

participate in NFIP, which helps protect communities by reducing potential flood losses through flood insurance as well as restricting floodplain development.

Hazard Summary by Jurisdiction

All jurisdictions in the county are at risk of flood hazards. However, as demonstrated in **Table 3.23** and **3.24**, exposure of assets near SFHAs vary among jurisdictions. Based on **Figures 3.5 – 3.11** demonstrating the flood areas for each jurisdiction, the communities of Forsyth, Hollister, Rockaway Beach, and Bull Creek have the potential to sustain the most damage, both to their structures as well as to their critical and essential facilities.

Community Comments on Hazard

Three of the 97 residents who completed the online survey stated that they had been impacted by flooding. 34 of the respondents (35%) felt that flooding was "highly likely" to impact their community in the future. 61 of the respondents (63%) felt that flooding could have a "catastrophic" or "critical" impact, while only 36 (37%) felt that it could have a little to no impact. Overall, respondents were supportive of actions that targeted flood mitigation projects. Flood-prone property acquisition and other flood protection actions ranked 3, 4 and 5 on top projects supported by the community within the survey.

Problem Statement

Floods are frequent events and have been listed in 15 out of 24 presidential disaster declarations that have included Taney County dating back to 1993. From 2001 to 2020, flooding (both riverine and flash) caused \$32,625,000 in property damage. There have been 6 reported deaths as a result of flooding and flash flooding in Taney County in the disaster period. Significant debris accumulation and damages at low water crossings are a regular occurrence due to flash flooding.

Taney County, Branson, Hollister, Merriam Woods, Rockaway Beach, and Bull Creek all participate in the National Flood Insurance Program (NFIP). These communities have passed floodplain management ordinances and have the ability to substantially regulate development in the floodplain. Their participation in the NFIP enables residents to purchase flood insurance. Street flooding in incorporated areas can be addressed through storm water management projects and enforcement of storm water management regulations, where applicable.

Several low water crossings at numerous locations throughout the county have been affected by floods and flash flooding. All warning signs and gauges should be installed and replaced at frequently flooded low water crossings to provide warning to motorists. Hazard awareness programs and education during and prior to flood events in the county broadcasted by the media can mitigate future risks to motorists at low water crossings.

3.4.2 Dam Failure

Hazard Profile

Hazard Description

A dam is defined as a barrier constructed across a watercourse for the purpose of storage, control, or diversion of water. Dams are typically constructed of earth, rock, concrete, or mine tailings. Dam failure is the uncontrolled release of impounded water resulting in downstream flooding, affecting both life and property. Dam failure can be caused by any of the following:

- 1. **Overtopping**: Inadequate spillway design, debris blockage of spillways or settlement of the dam crest.
- 2. **Piping**: Internal erosion caused by embankment leakage, foundation leakage and deterioration of pertinent structures appended to the dam.
- 3. **Erosion**: Inadequate spillway capacity causing overtopping of the dam, flow erosion, and inadequate slope protection.
- 4. **Structural Failure**: Caused by an earthquake, slope instability or faulty construction.

According to the 2018 State Plan, Missouri has 5,113 total dams recording in the National Inventory of Dams. Dam owners are charge with the primary responsibility for the safe design, operation, and maintenance of their dams. They are also responsible for providing early warning of problems at the dam, for developing an effective emergency action plan, and for coordinating that plan with local officials.

Missouri's topography allows lakes to be built easily and inexpensively, contributing to the high number of dams. Despite the large number of total dams in the state, there are only 685 (about 13.4 percent) state regulated dams, with an additional 57 federally regulated dams. The remaining 4,371 dams are un-regulated.

Dams that fall under state regulation are non-federally regulated dams that are more than 35 feet in height. Most nonfederal dams are privately owned structures built either for agricultural, water supply or recreational use. The Department of Natural Resources (MDNR) Water Resources Center maintains the Dam and Reservoir Safety Program in Missouri. The program ensures that dams over 35 feet in height are safely constructed, operated, and maintained pursuant to Chapter 236 of Revised Statutes of Missouri.

The Department of Natural Resources provides information about regulated and unregulated dams in Missouri. The information includes details of the dam dimensions, date of construction, approximate reservoir volume, contributing drainage basin area and hazard classification. In addition, USACE maintains the National Inventory of Dams (NID). The information in the NID database matches the list from the MDNR website with some additional details for dams in Taney County. Although both agencies provide a hazard classification for dams, the dam classification systems differ.

The Missouri Dam and Reservoir Safety Council Rules and Regulations uses three classes of downstream environmental zone used when considering permits. The downstream environment zone is the area below the dam that would become inundated should the dam fail. Inundation is defined as water two feet or more over the submerged ground outside of the stream channel. These classes are based on the number of structures and types of development contained within the inundation area as presented in **Table 3.25**. The downstream environment zone classification is also used to prescribe the frequency of inspection.

Table 3.25. MoDNR Dam Hazard Classification Definitions

Hazard Class	Definition
Class I	The area downstream from the dam that would be affected by inundation contains ten (10) or more permanent dwellings or any public building. Inspection of these dams must occur every two years.
Class II	The area downstream from the dam that would be affected by inundation contains one to nine permanent dwelling, or one (1) or more campgrounds with permanent water, sewer and electrical services or one (1) or more industrial buildings. Inspection of these dams must occur once every three years.

Class III	The area downstream from the dam that would be affected by inundation does not contain any of the structures identified for Class I or Class II dams. Inspection of these dams must occur once every five years.
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Source: Missouri Department of Natural Resources, http://dnr.mo.gov/env/wrc/docs/rules_reg_94.pdf

Dams in the NID are classified according to hazard potential, an indicator of the consequences of dam failure. A dam's hazard potential classification, presented in **Table 3.26**, does not indicate its condition. Dams assigned the high hazard potential classification are those where failure will potentially result in loss of human life. Significant hazard potential are those dams where failure results in no probable loss of human life but can cause economic loss. Dams assigned the low hazard potential classification are those where failure or results in no probable loss of human life and low economic or environmental losses. Losses are principally limited to the owner's property.

Table 3.26. NID Dam Hazard Classification Definitions

Hazard Class	Definition
Low Hazard	Failure results in only minimal property damage
Significant Hazard	Failure could possibly result in the loss of life and appreciable property damage
High Hazard	If the dam were to fail, lives would be lost and extensive property damage could result

Source: National Inventory of Dams

There is not a direct correlation between the State Hazard classification and the NID classifications. However, most dams that are in the State's Classes I and II are considered NID High Hazard Dams.

Geographic Location

Dams Located Within the Planning Area

There are nine dams in Taney County in in the National Inventory of Dams (NID) – four are classified as low hazard and five are classified as high hazard. Three of the dams are state regulated (Silver Creek Lake Dam, Cross Creek Dam, and Emory Ranch Lake Dam). **Table 3.27** provides a summary of the dams located in the county and **Figures 3.13** through **3.22** provides the locations of dams in Taney County

Table 3.27. Dams in Taney County

Dam Name	Emergency Action Plan (EAP)AP	Dam Height (Ft)	Normal Storage (Acre-Ft)	Last Inspection Date	River	Nearest Downstream City	Distance To Nearest City (Miles)	Dam Owner	NID classification
Table Rock Dam	Yes	260	3,462,000	12/07/2017	Table Rock Lake	Branson	4.00	USACE – Little Rock District	High
Ozark Beach Dam	Yes	54	38,200	12/17/2019	Lake Taneycomo	Forsyth	1.82	Empire District Electric Company	High
Silver Creek Lake Dam	Yes	41	140	08/23/2016	Silver Creek Lake	Rockaway Beach	0.60	-	High

Fall Creek Dam	Not Required	32	342	-	Fall Creek	Branson	1.00	-	High
Rockwood Hills Lake Dam	Not Required	25	40	11/20/1980	Rockwood Hils Lake	Branson	-	Bob Patrick	High
Cross Creek Dam	No	40	41	11/19/2015	Cross Creek	Hollister	2.31	-	Low
Emory Ranch Lake Dam	No	37.7	58	10/01/2015	Emory Ranch Lake	Bull Creek	3.11	Bank of Missouri	Low
Oakmont Resort Dam	Not Required	34	18	-	Table Rock Lake	Ridgedale	1.15	Johnny Morris	Low
Shepherd of The Hills Hist. Soc. Dam	Not Required	33	71	-	McDonald Lake	Branson	0.50	Shepherd of the Hills Historical Society	Low

Sources: National Inventory of Dams https://damsdev.net/#/

Figure 3.13. Dam locations in Taney County

Taney County Dams



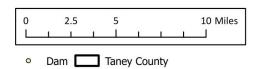






Figure 3.14. Cross Creek Dam

Cross Creek Dam





Figure 3.15. Emory Ranch Lake Dam

Emory Ranch Lake Dam





Figure 3.16. Fall Creek Dam (High Hazard)

Fall Creek Dam





Figure 3.17. Oakmont Resort Dam

Oakmont Resort Dam





Figure 3.18. Ozark Beach Dam (High Hazard)

Ozark Beach Dam





Figure 3.19. Rockwood Hills Lake Dam (High Hazard)

Rockwood Hills Lake Dam





Figure 3.20. Shepherd of the Hills Historical Society Dam

Sheperd of the Hills Hist. Soc. Dam





Figure 3.21. Silver Creek Lake Dam (High Hazard)

Silver Creek Lake Dam





Figure 3.22. Table Rock Dam (High Hazard)

Table Rock Dam

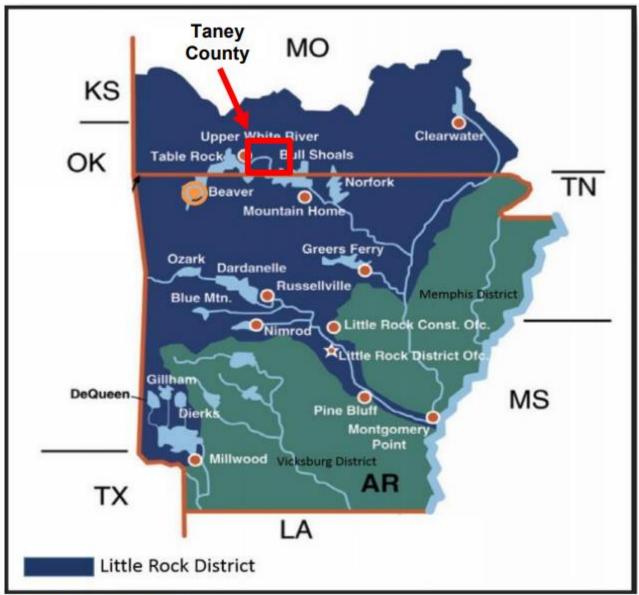




Upstream Dams Outside the Planning Area

The Beaver Lake Dam in Arkansas on Beaver Lake is upstream of Table Rock Lake. A failure of this dam could impact parts of Taney County. **Figure 3.23** shows the location of Beaver Lake Dam.

Figure 3.23. Upstream Dams Outside Taney County



Source: U.S. Army Corps of Engineers

Strength/Magnitude/Extent

It can be stated that the severity of dam failure would be similar in some cases to the impacts associated with flood events (see the flood hazard vulnerability analysis and discussion). Based on the hazard class definitions, failure of any of the High Hazard/Class I dams could result in a serious threat of loss of human life, serious damage to residential, industrial, or commercial areas, public utilities, public buildings, or major transportation facilities. Catastrophic failure of any high hazard dams has the potential to result in greater destruction due to the potential speed of onset and greater depth, extent,

and velocity of flooding. Note that for this reason, dam failures could flood areas outside of mapped flood hazards.

Actual dam failure can result not only in loss of life, but also considerable loss of capital investment, loss of income, and property damage. Loss of the reservoir itself can cause hardship for those dependent on it for their livelihood or water supply.

Previous Occurrences

According to the 2018 State Hazard Mitigation Plan, there are no recorded instances of dam failure within Taney County. From 1975 to 2016, there were 86 instances of dam failure statewide, with the vast majority occurring during the 1990s.

Probability of Future Occurrence

There are no records of dam failure in Taney County. Since there are zero recorded events in the planning area, a calculation of a probability percent is not possible. According to information from the 2018 State Plan, Missouri's percentage of high hazard dams in the DNR inventory puts the State at about the national average for that category. However, if development occurs downstream of dams the percentage of high hazard dams will increase. Additionally, the probability of dam failure increases as many of the smaller and privately owned dams continue to deteriorate without the benefit of further regulation or improvements. Regular inspection and maintenance schedules for dams greatly reduces the probability of dam failure. Table Rock Lake Dam, Ozark Beach Dam, and Silver Creek Lake Dam have all had EAPs created recently; 2020, 2021, and 2015, respectively.

Changing Future Conditions Considerations

According to the 2018 State Plan, dam failure is tied to flooding and the increased pressure that flooding has on dams. Future condition projections imply an increase in precipitation and more extreme events, which may increase flood risk and put additional stress on dams.

Vulnerability

Vulnerability Overview

Vulnerability to dam failure in Taney County is limited to structures and critical infrastructure located in dam inundation zones. There are five total high hazard dams in the county – Table Rock Dam, Ozark Beach Dam, Silver Creek Lake Dam, Fall Creek Dam, and Rockwood Hills Lake Dam. Three of those high hazard dams have an Emergency Action Plan (EAP) in place. An EAP can be defined as a plan of action to be taken to reduce the potential for property damage and loss of life in an area affected by a dam failure or large flood. Table Rock Dam poses by far the greatest threat in the event of a failure, due to the volume of Table Rock Lake and the large amount of development downstream. A failure of Table Rock Dam would likely result in significant damage to the downstream area, including parts of Branson and Hollister. Beaver Lake Dam in Arkansas is upstream on the White River, which flows into Table Rock Lake. A dam failure at Beaver Lake could potentially impact communities in Taney County, but ideally Table Rock Lake could handle the flow from Beaver Lake at normal levels.

Potential Losses to Existing Development:

There are five total high hazard dams located within Taney County (Table Rock Dam, Ozark Beach Dam, Silver Creek Lake Dam, Fall Creek Dam, and Rockwood Hills Lake Dam). In the event of a dam failure, these dams have the potential to cause the highest amount of damage. Structures located downstream of the dam in a SHFA would see the most damage. Table Rock, Ozark Beach, and Silver

Creek Lake Dam have Emergency Action Plans in place designed to reduce the potential for property damage and loss of life in an area affected by a dam failure or large flood.

Impact of Previous and Future Development

It is possible that future development will occur downstream of high hazard dams within the county. Any new development within the inundation area would increase the exposure to a possible dam failure event.

Hazard Summary by Jurisdiction

The cities of Branson and Hollister are the primary jurisdictions in the county that are at major risk of a dam failure. In the event of a catastrophic failure of Table Rock Dam, parts of Rockaway Beach and Forsyth could be affected as well. School district boundaries would be impacted, but no school districts have facilities within the potential inundation area.

Community Comments on Hazard

There were no responders to the community survey that indicated they had been affected by a dam failure. The public did not view dam failure as a very important issue facing their communities, as it historically has not affected Taney County. 79% of responders feel dam failure is unlikely and 65% were not concerned about dam failure impacting their community. However, 64% felt dam failure would have a catastrophic or critical failure, most likely due to inundation that could be caused as a result of a failure of Table Rock Dam.

Problem Statement

Overall, dam failure is a relatively low risk to Taney County and the incorporated communities. Regular inspections and maintenance may reduce likelihood of an event occurring. Although the probability of a dam failure in the county is low, the potential for damage remains.

Residents near high hazard dams should become familiar with the dam's emergency action plans, if available. Emergency plans written for dams include procedures for notification and coordination with local law enforcement and other governmental agencies, information on the potential inundation area, plans for warning and evacuation, and procedures for making emergency repairs. It would be advantageous for jurisdictions to work closely with dam operators and participate in dam emergency exercises.

3.4.3 Earthquakes

Hazard Profile

Hazard Description

An earthquake is a sudden motion or trembling that is caused by a release of energy accumulated within or along the edge of the earth's tectonic plates. Earthquakes occur primarily along fault zones and tears in the earth's crust. Along these faults and tears in the crust, stresses can build until one side of the fault slips, generating compressive and shear energy that produces the shaking and damage to the built environment. Heaviest damage generally occurs nearest the earthquake epicenter, which is that point on the earth's surface directly above the point of fault movement. The composition of geologic materials between these points is a major factor in transmitting the energy to buildings and other structures on the earth's surface.

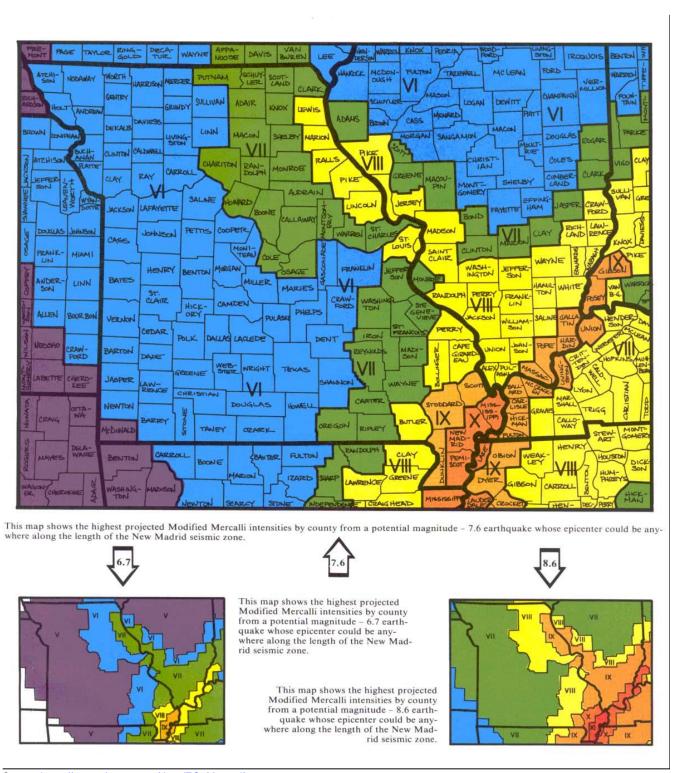
The subterranean faults were formed many millions of years ago on or near the surface of the earth. Subsequent to that time, these ancient faults subsided, while the areas adjacent were pushed up. As this fault zone (also known as a rift) lowered, sediments filled in the lower areas. Under pressure, the sediments hardened into limestones, sandstones, and shales – thus burying the rifts. The pressures on the North American plate and the movements along the San Andreas Fault by the Pacific plate have reactivated the buried rift(s) in the Mississippi embayment. This rift system is called the Reelfoot Rift and underlies the New Madrid Seismic Zone (Braile et al., 1986).

Geographic Location

The greatest hazard from earthquakes in Taney County comes from the New Madrid Seismic Zone situated in the boot heel area of southeast Missouri. The potential of high magnitude earthquakes occurring along the New Madrid fault presents risk that does not vary across Taney County. The Nemaha uplift in central Kansas is also prone to seismic activity; however, the center of the Humbolt fault zone near the Nemaha Uplift is approximately 200 to 220 miles west of Taney County and produces lower magnitude seismic events.

Figure 3.24 shows the highest projected Modified Mercalli intensities by county from a potential magnitude 7.6 earthquake whose epicenter could be anywhere along the length of the New Madrid Seismic Zone. The secondary maps in **Figure 3.24** show the same regional intensities for 6.7 and 9.6 earthquakes, respectively. Taney County is located in zone VI from a potential magnitude 7.6 earthquake along the New Madrid fault. Residents would feel movement, there could be minimal damage to structures, and dishes and glassware would likely be broken

Figure 3.24. Impact Zones for Earthquake Along the New Madrid Fault



Source: https://sema.dps.mo.gov/docs/EQ_Map.pdf

The 2014 USGS National Seismic Hazard Maps display earthquake ground motions for various probability levels across the United States and are applied in seismic provisions of building codes, insurance rate structures, risk assessments, and other public policy. The update maps represent an assessment of the best available science in earthquake hazards and incorporates new findings on

earthquake ground shaking, faults, seismicity, and geodesy. The USGS National Seismic Hazard Mapping Project developed these maps by incorporating information on potential earthquakes and associated ground shaking obtained from interaction in science and engineering workshops involving hundreds of participants, review by several science organizations and state surveys, and advice from expert panels and Steering Committee.

Figure 3.25 illustrates seismicity in the United States. A black arrow shows the approximate location of Taney County.

Highest hazard

Lowest hazard

Lowest hazard

Figure 3.25. United States Seismic Hazard Map

Source: United States Geological Survey at https://earthquake.usgs.gov/hazards/hazmaps/conterminous/2014/images/HazardMap2014_lg.jpg

Strength/Magnitude/Extent

The extent or severity of earthquakes is generally measured in two ways: 1) the Richter Magnitude Scale is a measure of earthquake magnitude; and 2) the Modified Mercalli Intensity Scale is a measure of earthquake severity. The two scales are defined as follows

Richter Magnitude Scale

The Richter Magnitude Scale was developed in 1935 as a device to compare the size of earthquakes. The magnitude of an earthquake is measured using a logarithm of the maximum extent of waves recorded by seismographs. Adjustments are made to reflect the variation in the distance between the various seismographs and the epicenter of the earthquakes. On the Richter Scale, magnitude is expressed in whole numbers and decimal fractions. For example, comparing a 5.3 and a 6.3 earthquake shows that the 6.3 quake is ten times bigger in magnitude. Each whole number increase

in magnitude represents a tenfold increase in measured amplitude because of the logarithm. Each whole number step in the magnitude scale represents a release of approximately 31 times more energy.

Modified Mercalli Intensity Scale

The intensity of an earthquake is measured by the effect of the earthquake on the earth's surface. The intensity scale is based on the responses to the quake, such as people awakening, movement of furniture, damage to chimneys, etc. The intensity scale currently used in the United States is the Modified Mercalli (MM) Intensity Scale, shown below in **Table 3.28** It was developed in 1931 and is composed of 12 increasing levels of intensity. They range from imperceptible shaking to catastrophic destruction, and each of the twelve levels is denoted by a Roman numeral. The scale does not have a mathematical basis but is based on observed effects. Its use gives the laymen a more meaningful idea of the severity.

 Table 3.28.
 Modified Mercalli Intensity Scale

Intensity Level	Description
I	People do not feel any movement.
II	A few people might notice movement.
III	Many people indoors feel movement; Hanging objects swing.
IV	Most people indoors feel movement; Dishes, windows, and doors rattle; Walls, frames and structures creak; Liquids in open vessels are slightly disturbed; Parked cars rocked.
V	Almost everyone feels movement. Most people are awakened; Doors swing open or closed; Dishes are broken: Pictures on the wall move: Windows crack in some cases; Small objects move or are turned over: Liquids might spill out of open containers.
VI	Almost everyone feels movement. Most people are awakened; Considerable quantities of dishes, glassware, and windows are broken; People have trouble walking; Pictures fall off walls; Objects fall from shelves; Plaster in walls might crake; Some furniture is overturned; Small bells in churches, chapels, and schools ring.
VII	People have difficulty standing; Considerable damage in poorly built or badly designed buildings, adobe houses, old walls, and spires; Damage is slight to moderate in well-built buildings; Numerous windows are broken; Weak chimneys break at rooflines; Cornices from towers and high buildings fall; Loose bricks fall from buildings; Heavy furniture is overturned and damaged; Some sand and gravel stream banks cave in.
VIII	Drivers have trouble steering; Poorly built structures suffer severe damage; Ordinary substantial buildings partially collapse; Damage slight in structures especially built to withstand earthquakes; Tree branches break; Houses not bolted down may shift on foundations; Tall structures such as towers and might chimneys twist and fall; Temporary or permanent changes in springs and wells; Sand and mud is ejected.
IX	Most buildings suffer damage; Houses not bolted down move off their foundations; Some underground pipes are broken; The ground cracks conspicuously; Reservoirs suffer damage.
X	Well-built wooden structures destroyed; most masonry and frame structures destroyed, including foundations; Rails bent; Dams seriously damaged; Cracks open in pavement.
XI	Few, if any masonry structures remain standing; Large well-built bridges destroyed; Rails bent greatly; Buried pipelines are rendered completely useless. Water mixed with sand and mud ejected in large amounts.
XII	Damage is total, and nearly all works of construction are damaged greatly or destroyed. Objects are thrown into the air. The ground moves in waves or ripples. Large amounts of rock may move. Lakes are dammed, waterfalls formed, and rivers are deflected

Previous Occurrences

There is no historical record of an earthquake occurrence within Taney County. The southeastern portion of Missouri is most susceptible to earthquakes because it overlies the New Madrid Seismic Zone. Earthquake hazards in the western part of the State also exist because of the historical earthquakes in eastern Kansas and Nebraska. No area of Missouri is immune from the danger of earthquakes. Minor, but potentially damaging, earthquakes can occur anywhere in the state (SEMA, 2013).

Probability of Future Occurrence

Without a historical record for earthquakes in Taney County it is not possible to calculate a precise probability of earthquake occurrence. The Center for Earthquake Research and Information (CERI) at the University of Memphis has computed conditional probabilities of a magnitude 6.0 earthquake in the New Madrid seismic zone. According to a fact sheet prepared by SEMA in 2003, the probability for a magnitude 6.0 to 7.5 or greater earthquake along the New Madrid Fault is 25 to 40 percent over the next 50 years. At the 25% level, the likelihood of an earthquake happening in a given year is 1.0%. At the 40% level, the likelihood of an earthquake happening in a given year is 1.6%.

Changing Future Conditions Considerations

Scientists are beginning to believe there may be a connection between changing climate conditions and earthquakes. Changing ice caps and sea-level redistribute weight over fault lines, which could potentially have an influence on earthquake occurrences. However, currently no studies quantify the relationship to a high level of detail, so recent earthquakes should not be linked with climate change. While not conclusive, early research suggests that more intense earthquakes and tsunamis may eventually be added to the adverse consequences that are caused by changing future conditions.

Vulnerability

Vulnerability Overview

Ground shaking is the most damaging effect from earthquakes. Ground shaking will impact all structures and critical infrastructure such as roads and electrical transmission systems. The greatest earthquake risk to Taney County is the New Madrid fault in the boot-heel region of Missouri. A 7.6 magnitude earthquake would result in damage to poorly built buildings; considerable quantities of dishes, glassware and windows breaking; people having trouble walking; pictures falling off walls; objects falling from shelves; plaster in walls cracking; and furniture overturning. Damage to structures will occur but will vary on the quality of construction. In addition, underground utilities may be damaged and some injuries may occur, but fatalities are unlikely.

Potential Losses to Existing Development

The potential losses to existing development are based on the total exposure for all communities in the planning area. The total exposure for each jurisdiction was used to estimate losses due to a 7.6 earthquake along the New Madrid Fault. A damage factor of 0.5% was applied to each jurisdiction's total building and contents based on the expected impact for Zone VI on the Modified Mercalli Scale. **Table 3.29** summarizes the estimated losses for each jurisdiction.

Table 3.29. Estimated Potential Earthquake Losses

Jurisdiction	Potential Earthquake Losses (\$)
Unincorporated Taney County	\$21,415,632.50
City of Branson	\$19,921,737.50
City of Forsyth	\$1,855,440.00
City of Hollister	\$2,994,527.50
City of Merriam Woods	\$764,077.50
City of Rockaway Beach	\$705,405.00
Village of Bull Creek	\$281,552.50
Village of Kirbyville	\$133,572.50
Village of Taneyville	\$166,735.00

Source: Taney County Assessor

Impact of Previous and Future Development

Previous development that may have been constructed without adherence to building codes may be at a greater risk of damage during an event. If future development follows building codes, it is not expected to increase the risk other than contributing to the overall exposure of what could become damaged as a result of an earthquake event. Of the participating jurisdictions, Branson, Forsyth, Hollister, and Rockaway Beach enforce building codes.

Hazard Summary by Jurisdiction

Earthquake intensity is not likely to vary greatly throughout the county as the risk of occurrence is the same throughout. However, potential damages will be more significant in communities with a higher number of structures built in or prior to 1939. **Table 3.30** provides a summary.

Table 3.30. Housing Units Built in 1939 or Earlier

Jurisdiction	Built 1939 or earlier (#)	Built 1939 or earlier (%)
Taney County	742	3.3%
Branson	89	1.8%
Forsyth	26	2.7%
Hollister	128	6.9%
Merriam Woods	4	0.5%
Rockaway Beach	28	6.7%
Bull Creek	0	0.0%

Source: US Census Bureau American Community Survey 5-Year Estimates

Of the participating cities, Hollister has both the most (128) and the highest percent (6.9%) of structures built 1939 or earlier.

Community Comments on Hazard

None of the respondents to the community survey indicated that they had been personally impacted by an earthquake. 44% of responders felt that an earthquake would be unlikely, 61% were either not so concerned or not at all concerned about earthquake impact, and 51% thought that an earthquake would have limited to no impact on their community.

Problem Statement

Based on likely damage from a 7.6 magnitude earthquake along the New Madrid fault line, older, poorly built structures will suffer slight damage. Taney County and Hollister contain the highest amount of structures built 1939 or earlier, while Taneyville has the highest percentage with the jurisdiction.

Adopting, updating, and enforcing building codes would assist in mitigating damages associated with earthquake events. Introducing public awareness programs that teach residents of the risks to older structures in earthquake events may motivate the public to support such legislation, as well as cooperate with its enforcement.

3.4.4 Land Subsidence/Sinkholes

Hazard Profile

Hazard Description

Sinkholes are common where the rock below the land surface is limestone, carbonate rock, salt beds, or rocks that naturally can be dissolved by ground water circulating through them. As the rock dissolves, spaces and caverns develop underground. The sudden collapse of the land surface above them can be dramatic and range in size from broad, regional lowering of the land surface to localized collapse. However, the primary causes of most subsidence are human activities: underground mining of coal, groundwater or petroleum withdrawal, and drainage of organic soils. In addition, sinkholes can develop as a result of subsurface void spaces created over time due to the erosion of subsurface limestone (karst).

Land subsidence occurs slowly and continuously over time, as a general rule. On occasion, it can occur abruptly, as in the sudden formation of sinkholes. Sinkhole formation can be aggravated by flooding.

In the case of sinkholes, the rock below the surface is rock that has been dissolving by circulating groundwater. As the rock dissolves, spaces and caverns form, and ultimately the land above the spaces collapse. In Missouri, sinkhole problems are usually a result of surface materials above openings into bedrock caves eroding and collapsing into the cave opening. These collapses are called "cover collapses" and geologic information can be applied to predict the general regions where collapse will occur. Sinkholes range in size from several square yards to hundreds of acres and may be quite shallow or hundreds of feet deep.

According to the U.S. Geological Survey (USGS), the most damage from sinkholes tends to occur in Florida, Texas, Alabama, Missouri, Kentucky, Tennessee, and Pennsylvania. Fifty-nine percent of Missouri is underlain by thick, carbonate rock that makes Missouri vulnerable to sinkholes. Sinkholes occur in Missouri on a fairly frequent basis. Most of Missouri's sinkholes occur naturally in the State's karst regions (areas with soluble bedrock). They are a common geologic hazard in southern Missouri, but also occur in the central and northeastern parts of the State. Missouri sinkholes have varied from a few feet to hundreds of acres and from less than one to more than 100 feet deep. The largest known sinkhole in Missouri encompasses about 700 acres in western Boone County southeast of where Interstate 70 crosses the Missouri River. Sinkholes can also vary in shape like shallow bowls or saucers whereas other have vertical walls. Some hold water and form natural ponds.

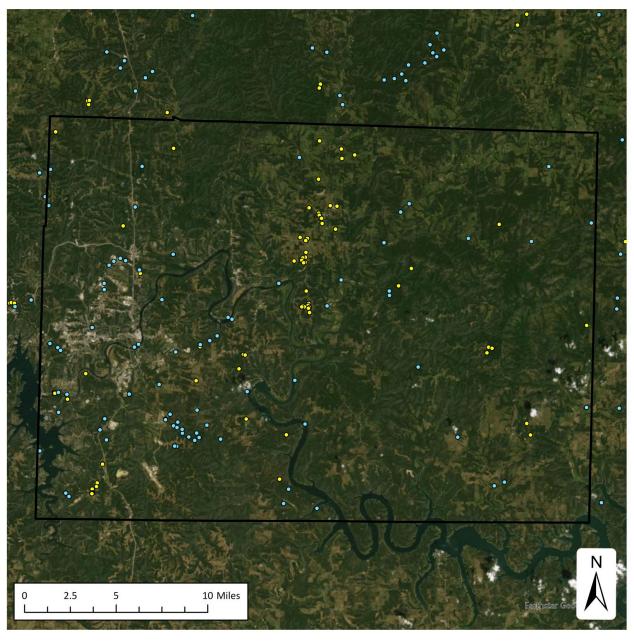
Geographic Location

According to spatial data from the Missouri Department of Natural Resources, 69 sinkhole formations have been identified in Taney County. The largest concentrations of sinkholes reside east of Forsyth in the central portion of the county.

Figure 3.26 shows the location of sinkholes as well as mines, occurrences, and prospects within Taney County.

Figure 3.26. Sinkholes and Mines, Occurrences, and Prospects in Taney County

Taney County Mine and Sinkhole Locations



- Sinkhole
- Mine
- Taney County



Strength/Magnitude/Extent

Sinkholes vary in size and location, and these variances will determine the impact of the hazard. A sinkhole could result in the loss of a personal vehicle, a building collapse, or damage to infrastructure such as roads, water, or sewer lines. Groundwater contamination is also possible from a sinkhole. Because of the relationship of sinkholes to groundwater, pollutants captured or dumped in sinkholes could affect a community's groundwater system. Sinkhole collapse could be triggered by large earthquakes. Sinkholes located in floodplains can absorb floodwaters but make detailed flood hazard studies difficult to model.

Previous Occurrences

As noted in the 2018 State Plan, sinkholes are a regular occurrence in Missouri, but rarely are the events of any significance. In 2015, a giant sinkhole opened near Branson, at Top of the Rock golf course. A construction worker was injured after his pickup truck tumbled into the sinkhole in 2018.

Probability of Future Occurrence

There is currently no database regarding sinkhole occurrences in Taney County. Because of this, no official estimation can be made regarding the probability of future occurrences.

Changing Future Conditions Considerations

Changes in climate conditions could increase the number of sinkhole occurrences throughout Taney County. Drought periods can reduce groundwater levels, making the sediments within a sinkhole-prone hazard area dry and unstable. Severe storms triggered by drought could bring torrential rainfall that washes out the supporting sediments, undercutting the ground and creating conditions conducive to sinkhole formation.

Vulnerability

Vulnerability Overview

Sinkholes in Missouri are a common feature where limestone and dolomite outcrop. Dolomite is a rock similar to limestone with magnesium as an additional element along with the calcium normally present in the minerals that form rocks. While some sinkholes may be considered a slow changing nuisance, other more sudden, catastrophic collapses can destroy property, delay construction projects, contaminate ground water resources, and damage underground utilities.

According to the 2018 Missouri State Hazard Mitigation Plan, Taney County rated Low-Medium on the sinkholes per county rating values. This category is comprised of counties that contain between 1 and 200 sinkholes.

Potential Losses to Existing Development

Sinkhole loss estimates were established using GIS processes and appraised valuations. A sinkhole point shapefile acquired from MDNR was used to generate a half-mile buffer around each sinkhole. The buffer layer was designated as the hazard-prone areas for sinkholes. The map layer of the sinkhole hazard-prone areas was used as an overlay on the parcel data to generate the loss estimates from this hazard by jurisdiction. Existing structure data was also used to determine which parcels contained structures that fell within the sinkhole hazard-prone area. The data presented was extracted solely from these select parcels.

Table 3.31 provides the building count by type and by jurisdiction based on the results of the sinkhole analysis. **Table 3.32** provides a dollar amount for total exposure by jurisdiction and estimated losses. To calculate the losses a damage factor of 0.5% was applied to the total exposure.

Table 3.31. Sinkhole Exposure by Building Type

Jurisdiction	Residential	Commercial	Industrial	Agricultural	Total Building Count
Taney County	2,895	108	30	12	3,045
Branson	747	30	7	3	787
Forsyth	0	0	0	0	0
Hollister	13	5	2	1	21
Merriam Woods	0	0	0	0	0
Rockaway Beach	0	0	0	0	0
Bull Creek	0	0	0	0	0
Total	3,685	148	40	16	3,889

Table 3.32. Sinkhole Estimated Losses

Jurisdiction	Residential	Commercial	Industrial	Agricultural	Total Estimated Losses
Taney County	\$736,447,000	\$116,195,000	\$30,148,000	\$5,246,000	\$888,036,000
Branson	\$401,133,000	\$72,659,000	\$6,216,000	\$1,562,000	\$481,570,000
Forsyth	-		ı	ı	-
Hollister	\$2,694,000	\$4,788,000	\$1,212,000	\$234,000	\$8,928,000
Merriam Woods	-		ı	ı	-
Rockaway Beach	-		ı	ı	-
Bull Creek	-	-			-
Total	\$1,140,274,000	\$193,642,000	\$37,576,000	\$7,042,000	\$1,378,534,000

Impact of Previous and Future Development

Future development over abandoned mines and in areas of known risk to sinkhole formation in the planning area will increase the vulnerability to this hazard. Population and development in these areas, especially in Branson and certain portions of the unincorporated county, will increase exposure to sinkhole occurrence. Future development may also change storm runoff patterns and cause expansion of existing or formation of new sinkholes.

Hazard Summary by Jurisdiction

The risk of sinkhole damage for individual communities and school districts is limited to the amount of exposure of buildings and infrastructure. Some parts of the county are more at risk for potential sinkhole formations such as the north and southwest portions. Hollister and Branson the only participating cities with existing structures that are at risk of sinkholes; however, much of the unincorporated county is largely at risk.

Community Comments on Hazard

None of the responders to the community survey indicated they had been affected by a sinkhole. It consistently scored in the bottom third of all hazards on all questions relating to likelihood of impact, level of concern, and magnitude of impact. Sinkholes were overall not considered a major concern by the residents of Taney County.

Problem Statement

It is likely that more sinkholes will occur as development increases within the county. Sinkholes can be remediated with fill material. Once a sinkhole has been remediated, building should be prohibited at the site. Existing sinkholes can expand if surface runoff erodes the edges of the sinkhole. Storm water runoff should be diverted away from known sinkholes. Jurisdictions may adopt regulations prohibiting construction at least 30 feet from known sinkholes. Undeveloped land that is in a sinkhole risk area can be used for park space or other recreational purposes. Additionally, jurisdictions can utilize public awareness campaigns about sinkholes and risks associated with developing in prone areas. Maps of sinkholes and prone areas should be available to members of the public.

3.4.5 Drought

Hazard Profile

Hazard Description

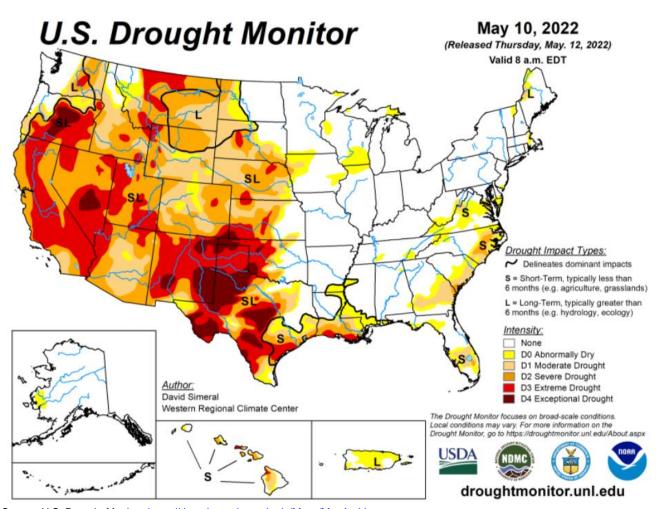
Drought is generally defined as a condition of moisture levels significantly below normal for an extended period of time over a large area that adversely affects plants, animal life, and humans. A drought period can last for months, years, or even decades. There are four types of drought conditions relevant to Missouri, according to the State Plan, which are as follows:

- Meteorological drought is defined in terms of the basis of the degree of dryness (in comparison to some "normal" or average amount) and the duration of the dry period. A meteorological drought must be considered as region-specific since the atmospheric conditions that result in deficiencies of precipitation are highly variable from region to region.
- Hydrological drought is associated with the effects of periods of precipitation (including snowfall) shortfalls on surface or subsurface water supply (e.g., streamflow, reservoir and lake levels, ground water). The frequency and severity of hydrological drought is often defined on a watershed or river basin scale. Although all droughts originate with a deficiency of precipitation, hydrologists are more concerned with how this deficiency plays out through the hydrologic system. Hydrological droughts are usually out of phase with or lag the occurrence of meteorological and agricultural droughts. It takes longer for precipitation deficiencies to show up in components of the hydrological system such as soil moisture, streamflow, and ground water and reservoir levels. As a result, these impacts also are out of phase with impacts in other economic sectors.
- <u>Agricultural</u> drought focus is on soil moisture deficiencies, differences between actual and
 potential evaporation, reduced ground water or reservoir levels, etc. Plant demand for water
 depends on prevailing weather conditions, biological characteristics of the specific plant, its
 stage of growth, and the physical and biological properties of the soil.
- Socioeconomic drought refers to when physical water shortage begins to affect people.

Geographic Location

Droughts are regional climatic events that can impact large areas and multiple counties. The entire county is at risk to the impacts of drought. However, drought most directly impacts the agricultural sector, so areas within the county where there is extensive agricultural land use can experience significant impacts. The major agricultural activity in the county is livestock which accounts for 90% of sales. Due to the density of livestock in the region, an extreme drought can have a devastating effect. **Figure 3.27** is a recent map from the U.S. Drought Monitor.

Figure 3.27. U.S. Drought Monitor Map of Missouri as of May 10, 2022



Source: U.S. Drought Monitor, https://droughtmonitor.unl.edu/Maps/MapArchive.aspx

Strength/Magnitude/Extent

The most commonly used indicator of drought and drought severity is the Palmer Drought Severity Index (PDSI), jointly published by the NOAA and the United States Department of Agriculture. The Palmer Drought Indices measure dryness based on recent precipitation and temperature. The indices are based on a "supply-and-demand model" of soil moisture. Calculation of supply is relatively straightforward, using temperature and the amount of moisture in the soil. However, demand is more complicated as it depends on a variety of factors, such as evapotranspiration and recharge rates. These rates are harder to calculate. Palmer tried to overcome these difficulties by developing an algorithm that approximated these rates and based the algorithm on the most readily available data — precipitation and temperature.

The Palmer Index has proven most effective in identifying long-term drought of more than several months. However, the Palmer Index has been less effective in determining conditions over a matter of weeks. It uses a "0" as normal, and drought is shown in terms of negative numbers; for example, negative 2 is moderate drought, negative 3 is severe drought, and negative 4 is extreme drought. Palmer's algorithm also is used to describe wet spells, using corresponding positive numbers.

Palmer also developed a formula for standardizing drought calculations for each individual location based on the variability of precipitation and temperature at that location. The Palmer index can therefore be applied to any site for which sufficient precipitation and temperature data is available

Previous Occurrences

According to the NECI storm events database, there were a total of 16 drought events in Taney County from 2001 to 2020. Many of these were multiple reports from persistent drought events that lasted several months. The NCEI reports indicate that there were 4 distinct drought periods during this 20-year timeframe. **Table 3.33** provides a summary of these events.

Table 3.33. Previous Drought Occurrences, 2001-2020

Drought Year	Months	Property Damage	Crop Damage
2006	January - April	\$0	\$0
2011	July - November	\$0	\$5,000,000
2012	July - December	\$0	\$760,000
2013	January	\$0	\$0

Source: NCEI Storm Events Database: https://www.ncdc.noaa.gov/stormevents/

According to the USDA Cause of Loss historical data files, there were 0 insurance payments for crop loss over the past 10 years.

Probability of Future Occurrence

Over the 20-year record period from 2001 to 2020, Taney County was in a drought for 16 months. There is a total of 240 months in the record period. Based on the number of months of drought and the total number of months in the record period, there is a 6.7% probability of drought occurrence in the county at any given month. Although drought is not predictable, long-range outlooks and predicated impacts of climate change could indicate an increased chance of occurrence and severity.

Changing Future Conditions Considerations

Drought frequently affects Missouri, including Taney County. Increasing temperatures due to a changing climate will inevitably accelerate evaporation rates and increase the frequency of droughts. It can be expected that rivers and groundwater reserves will experience significant reductions in available water with the increasing severity and frequency of droughts. It may be necessary in the future to consider restricting water usage in Taney County during periods of extended drought, which would mainly affect the county's agriculture industry and would diminish residents' quality of life.

Vulnerability

Vulnerability Overview

Southwest Missouri has moderate drought susceptibility. Groundwater resources are adequate to meet domestic and municipal water needs, but due to required well depths, irrigation wells are very expensive. The topography is generally unsuitable for row-crop irrigation. During extended time periods without precipitation, municipal water sources may be at risk for contamination as the concentration of natural minerals, such as lead, will increase with low water levels.

Potential Losses to Existing Development

The National Drought Monitor Center at the University of Nebraska at Lincoln summarized the potential impacts of drought as follows: Drought can create economic impacts on agriculture and related sectors,

including forestry and fisheries, because of the reliance of these sectors on surface and subsurface water supplies. In addition to losses in yields in crop and livestock production, drought is associated with increases in insect infestations, plant disease, and wind erosion. Droughts also bring increased problems with insects and disease to forests and reduce growth. The incidence of forest and range fires increases substantially during extended droughts, which in turn place both human and wildlife populations at higher levels of risk. Income loss is another indicator used in assessing the impacts of drought because so many sectors are affected. Finally, while drought is rarely a direct cause of death, the associated heat, dust, and stress can all contribute to increased mortality.

According to data from the USDA Risk Management Agency, there was \$0 in insured crop loss payments in Taney County in the years of 2001-2020. Therefore, it is not probable that future droughts will result in crop losses. There are no anticipated structural losses.

Impact of Previous and Future Development

Increases in acreage planted with crops would add to exposure to drought-related agricultural losses. In addition, increases in population result in increased demand for treated water and increase wastewater discharge, adding additional strain on water systems.

Hazard Summary by Jurisdiction

Although the probability of drought is the same for the entire county, farming and livestock enterprises in the unincorporated parts of the county would feel the greatest impact. Although communities with wells are susceptible to water shortages due to groundwater reduction, other communities with no source are more at risk to extreme water shortages in the event of a drought. School districts would be the least impacted by drought; however, those districts in communities with single source wells or none at all may experience water shortages prior to those in larger communities. Special districts, such as the Western Taney County Fire Protection District, would feel impacts in the form of increased risk for wildfire and reduced fire-fighting water sources.

Community Comments on Hazard

Only one responder to the community survey noted that they had been personally affected by a drought. 36% of residents felt that drought was only an occasional event, while 33% felt it was likely to occur. 27% felt that drought could have a catastrophic impact, while only 4% felt it would have a critical impact on their community.

Problem Statement

Although drought most likely will not cause structural damage, the impact is greatest on the agriculture sector and, if persistent enough, could cause reductions in groundwater and water shortages in communities that provide potable water services. Potential actions to mitigate the impact of drought would be for communities to develop public information campaigns regarding water conservation techniques and measures and provide notification mechanisms for community members to know when drought conditions may occur. Some methods may include restrict the use of public water resources for non-essential usage, such as landscaping, washing cars, filling swimming pools, etc. during extreme drought periods. School and special districts can also implement water conservation measures at all district facilities as well. Additionally, Taney County should encourage the use of drought-resistant farming practices to help reduce the negative impacts on crops and municipal drinking water supplies.

3.4.6 Extreme Temperatures

Hazard Profile

Hazard Description

Extreme temperature events, both hot and cold, can impact human health and mortality, natural ecosystems, agriculture, and other economic sectors. According to information provided by FEMA, extreme heat is defined as temperatures that hover 10 degrees or more above the average high temperature for the region and last for several weeks. Ambient air temperature is one component of heat conditions, with relative humidity being the other. The relationship of these factors creates what is known as the apparent temperature. The Heat Index chart shown in **Figure 3.28** uses both factors to produce a guide for the apparent temperature or relative intensity of heat conditions.

Extreme cold often accompanies severe winter storms and can lead to hypothermia and frostbite in people without adequate clothing protection. Cold can cause fuel to congeal in storage tanks and supply lines, stopping electric generators. Cold temperatures can also overpower a building's heating system and cause water and sewer pipes to freeze and rupture. Extreme cold also increases the likelihood for ice jams on flat rivers or streams. When combined with high winds from winter storms, extreme cold becomes extreme wind chill, which is hazardous to health and safety.

The National Institute on Aging estimates that more than 2.5 million Americans are elderly and especially vulnerable to hypothermia, with the isolated elders being most at risk. About 10 percent of people over the age of 65 have some kind of bodily temperature-regulating defect, and 3-4 percent of all hospital patients over 65 are hypothermic.

Also at-risk are those without shelter, those who are stranded, or who live in a home that is poorly insulated or without heat. Other impacts of extreme cold include asphyxiation (unconsciousness or death from a lack of oxygen) from toxic fumes from emergency heaters; household fires, which can be caused by fireplaces and emergency heaters; and frozen/burst pipes.

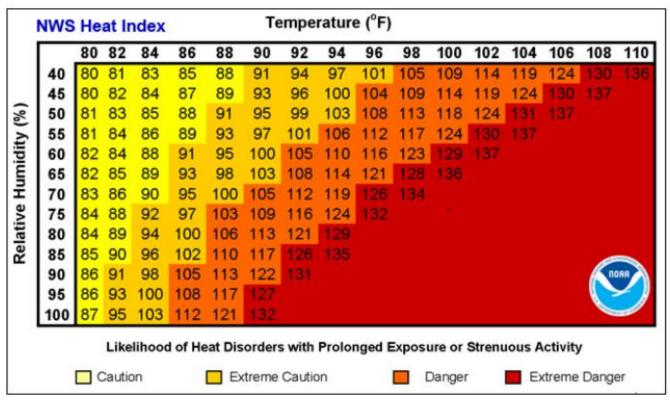
Geographic Location

Extreme heat is an area-wide hazard event; the risk of does not vary across Taney County.

Strength/Magnitude/Extent

The National Weather Service (NWS) has an alert system in place (advisories or warnings) when the Heat Index is expected to have a significant impact on public safety. The expected severity of the heat determines whether advisories or warnings are issued. A common guideline for issuing excessive heat alerts is when there are two or more consecutive days where the maximum daytime Heat Index is expected to equal or exceed 105 degrees Fahrenheit (°F) and the nighttime minimum Heat Index is 80°F or above. A heat advisory is issued when temperatures reach 105 degrees and a warning is issued at 115 degrees.

Figure 3.28. Heat Index (HI) Chart

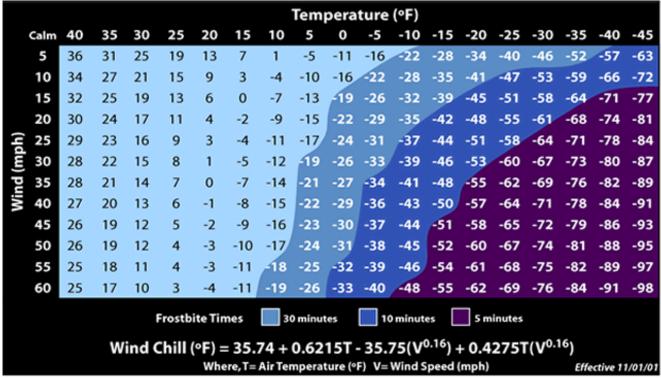


Source: National Weather Service (NWS); https://www.weather.gov/safety/heat-index Note: Exposure to direct sun can increase Heat Index values by as much as 15°F. The shaded zone above 105°F corresponds to a HI that may cause increasingly severe heat disorders with continued exposure and/or physical activity.

The NWS Wind Chill Temperature (WCT) index uses advances in science, technology, and computer modeling to provide an accurate, understandable, and useful formula for calculating the dangers from winter winds and freezing temperatures. **Figure 3.29** below presents wind chill temperatures which are based on the rate of heat loss from exposed skin caused by wind and cold. As the wind increases, it draws heat from the body, driving down skin temperature and eventually the internal body temperature

Figure 3.29. Wind Chill Chart





Source: https://www.weather.gov/safety/cold-wind-chill-chart

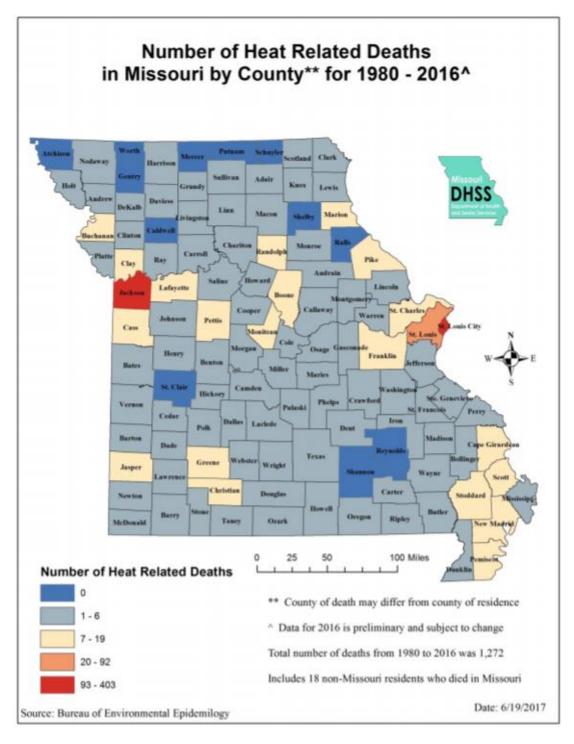
Previous Occurrences

According to the National Centers for Environmental Information (NCEI) database, there were 5 recorded extreme heat events from 2001 to 2020 in Taney county. There were zero deaths and injuries, as well as no property and crop damage associated with these events in the NCEI data for Taney County. The event narratives describe fatalities that occurred during regional multi-county heat events for other nearby counties as well. Extreme heat events in Taney County were recorded in consecutive months in two separate years from 2001 to 2020. The months for each year are summarized as follows:

- 2001: July and August
- 2012: June, July, and August

Figure 3.30 is a map created by The Missouri Department of Health and Senior Services (DHSS) for heat related fatalities by county. The map indicates that there have been between 1 and 6 heat related fatalities in Taney County from 1980 to 2016.

Figure 3.30. Heat Related Deaths in Missouri 1980- 2016



Source: https://health.mo.gov/living/healthcondiseases/hyperthermia/pdf/stat-report.pdf

Extreme heat can cause stress to crops and animals. According to USDA Risk Management Agency, there were no losses to insurable crops during the 10-year time period from 2011 to 2021. Extreme heat can also strain electricity delivery infrastructure overloaded during peak use of air conditioning during extreme heat events. Another type of infrastructure damage from extreme heat is road damage. When asphalt is exposed to prolonged extreme heat, it can cause buckling of asphalt-paved roads, driveways, and parking lots.

From 1988-2011, there were 3,496 fatalities in the U.S. attributed to summer heat. This translates to an annual national average of 146 deaths. The National Weather Service stated that among natural hazards, no other natural disaster—not lightning, hurricanes, tornadoes, floods, or earthquakes—causes more deaths.

NCEI data lists 1 instances of extreme cold/wind chill in Taney County from 2001 to 2020, on January 1st, 2001. No recorded deaths or injuries occurred from this event. Abnormally cold temperatures continued from December into early January with readings 10 to 20 degrees below normal. Snow- and ice-covered fields and highways provided problems to drivers, farmers, and ranchers.

Probability of Future Occurrence

There were two years with extreme heat events in a 20-year span in Taney County. As a result, there is a 10% chance that an extreme temperature event will occur in a given year. There was one period of extreme cold/wind chill over the same 20 years, which makes the probability of extreme cold/wind chill occurring in any given year 5%.

It should be noted that there are limitations to the accuracy of these projections. The events recorded in the NCEI database describe extreme heat as prolonged periods where temperatures rose at least 10° above normal for at least 12 consecutive days, and extreme cold as prolonged periods where the temperature was at least 10° below normal for at least 12 consecutive days. Heat and cold advisories and warnings are issued for shorter periods of extreme heat and cold nearly every year and may not meet the threshold for consecutive days in the NCEI database. This data limitation indicates that extreme temperature events may be underreported in the NCEI.

Changing Future Conditions Considerations

Under a higher emissions pathway, historically unprecedented warming is projected by the end of the century. Even under a pathway of lower greenhouse gas emissions, average annual temperatures are projected to most likely exceed historical record levels by the middle of the 21st century. For example, in southern Missouri, the annual maximum number of consecutive days with temperatures exceeding 95 degrees F is projected to increase by up to 20 days. Temperature increases will cause future heat waves to be more intense, a concern for this region which already experiences hot and humid conditions. If the warming trend continues, future heat waves are likely to be more intense, and cold wave intensity is projected to decrease.

The impacts of extreme heat events are experienced most acutely by the elderly and other vulnerable populations. Higher demand for electricity as people try to keep cool amplifies stress on power systems and may lead to an increase in the number of power outages. Atmospheric concentrations of ozone occur at higher air temperatures, resulting in poorer air quality, while harmful algal blooms flourish in warmer water temperatures, resulting in poorer water quality.

Mitigation against the impacts of future temperature increase may include increasing education on heat stress prevention, organizing cooling centers, allocating additional funding to repair and maintain roads damaged by buckling and potholes, and reducing nutrient runoff that contributes to algal blooms. Local governments should also prepare for increased demand on public recreational facilities, utility systems, and healthcare centers. Improving energy efficiency in public buildings will also present an increasingly valuable savings potential.

Vulnerability

Vulnerability Overview

High humidity, which often accompanies heat in Missouri, can make the effects of heat even more harmful. While heat-related illness and death can occur from exposure to intense heat in just one afternoon, heat stress on the body has a cumulative effect. Consequently, the persistence of a heat wave increases the threat to public health. Those at greatest risk for heat-related illness include infants and children up to five years of age, people 65 years of age and older, people who are overweight, and people who are ill or on certain medications. However, even young and healthy individuals are susceptible if they participate in strenuous physical activities during hot weather. In agricultural areas, the exposure of farm workers, as well as livestock, to extreme temperatures is a major concern.

Table 3.34 lists typical symptoms and health impacts due to exposure to extreme heat.

Table 3.34. Typical Health Impacts of Extreme Heat

Heat Index (HI)	Disorder
80-90° F (HI)	Fatigue possible with prolonged exposure and/or physical activity
90-105° F (HI)	Sunstroke, heat cramps, and heat exhaustion possible with prolonged exposure and/or physical activity
105-130° F (HI)	Heatstroke/sunstroke highly likely with continued exposure

Source: National Weather Service Heat Index Program, www.weather.gov/os/heat/index.shtml

Potential Losses to Existing Development

Based on information from the 2018 Missouri State Hazard Mitigation Plan, Taney County has a low-medium chance of experiencing extreme heat and a medium chance of experience extreme cold every year. There is no reported crop loss data, as well as no reported deaths or property damage for extreme heat or cold.

Impact of Previous and Future Development

Population growth can result in increases in the age-groups that are most vulnerable to extreme temperatures. Population growth also increases the strain on electricity infrastructure, as more electricity is needed to accommodate the growing population. Branson has the highest number of atrisk age groups (under 5 years of age and 65 years and older) of any jurisdiction in the county, while Forsyth has the highest percentage of at-risk population in the county (when not taking into account the unincorporated portion). Because of Taney County's rising population, it is important to consider infrastructure changes that may be needed to accommodate this change.

Hazard Summary by Jurisdiction

Those at greatest risk for heat-related illness and deaths include children up to five years of age, people 65 years of age and older, people who are overweight, and people who are ill or on certain medications. To determine jurisdictions within the planning area with populations more vulnerable to extreme heat, demographic data was obtained from the 2019 American Community Survey on population percentages in each jurisdiction comprised of those under age 5 and over age 65. Data was not available for overweight individuals and those on medications vulnerable to extreme heat. **Table 3.35** below summarizes vulnerable populations in the participating jurisdictions. Note that school and special districts are not included in the table because students and those working for the special districts are not customarily in these age groups.

Table 3.35. Taney County Population Under Age 5 and Over Age 65

Jurisdiction	Population Under 5	Population 65 Years and Over	Percent of Total Population
Taney County	3,108	11,729	26.9%
City of Branson	763	2854	31.7%
City of Forsyth	135	778	35.8%
City of Hollister	387	837	27.0%
City of Merriam Woods	286	221	22.9%
City of Rockaway Beach	49	141	21.8%
Village of Bull Creek	28	32	12.1%

Source: 2019 American Community Survey, 5-Year Estimates

Community Comments on Hazard

None of the residents who completed the online survey stated that they had been impacted by extreme heat. 66 of the respondents (37.7%) felt that extreme temperatures were highly likely to impact their community in the future. 67 (42.9%) respondents felt that extreme temperatures would have a limited impact, though 82 (45.7%) felt extreme temperatures would have a critical impact. Respondents were mostly only somewhat concerned with how extreme heat would impact their community.

Problem Statement

Older and younger segments of the population are more vulnerable to the impact of extreme heat. In addition, people living below the poverty level may be more vulnerable during periods of extreme temperatures due to a lack of air conditioning or heating in their homes. Institutionalized populations, such as those living in nursing homes, become more vulnerable to extreme temperatures due to power outages.

To help reduce the risk of death, heating and cooling centers should be promoted and known to the public, especially to those who have young children or are over the age of 65. Partnering with local community organizations to continue to donate fans and offer weatherization programs would mitigate the impact on vulnerable populations in the county. Additionally, backup generators should be installed in critical facilities, especially those housing vulnerable populations, to ensure property heating and cooling during extreme temperature events.

3.4.7 Severe Thunderstorms Including High Winds, Hail, and Lightning

Hazard Profile

Hazard Description

Thunderstorms

A thunderstorm is defined as a storm that contains lightning and thunder which is caused by unstable atmospheric conditions. When cold upper air sinks and warm moist air rises, storm clouds or 'thunderheads' develop resulting in thunderstorms. This can occur singularly as well as in clusters or lines. The National Weather Service defines a thunderstorm as "severe" if it includes hail that is one inch or more, or wind gusts that are at 58 miles per hour or higher. At any given moment across the world, there are about 1,800 thunderstorms occurring. Severe thunderstorms most often occur in Missouri in the spring and summer during the afternoon and evenings but can occur at any time. Other hazards associated with thunderstorms are heavy rains resulting in flooding (discussed separately in Section 3.4.1) and tornadoes (discussed separately in Section 3.4.9).

High Winds

A severe thunderstorm can produce winds causing as much damage as a weak tornado. The damaging winds of thunderstorms include downbursts, microbursts, and straight-line winds. Downbursts are localized currents of air blasting down from a thunderstorm which induce an outward burst of damaging wind on or near the ground. Microbursts are minimized downbursts covering an area of less than 2.5 miles across. They include a strong wind shear (a rapid change in the direction of wind over a short distance) near the surface. Microbursts may or may not include precipitation and can produce winds at speeds of more than 150 miles per hour. Damaging straight-line winds are high winds across a wide area that can reach speeds of 140 miles per hour.

Lightning

All thunderstorms produce lightning which can strike outside of the area where it is raining and has been known to fall more than 10 miles away from the rainfall area. Thunder is simply the sound that lightning makes. Lightning is a huge discharge of electricity that shoots through the air causing vibrations and creating the sound of thunder.

Hail

According to the National Oceanic and Atmospheric Administration (NOAA), hail is precipitation that is formed when thunderstorm updrafts carry raindrops upward into extremely cold atmosphere causing them to freeze. The raindrops form into small frozen droplets. They continue to grow as they come into contact with super-cooled water which will freeze on contact with the frozen rain droplet. This frozen droplet can continue to grow and form hail. As long as the updraft forces can support or suspend the weight of the hailstone, hail can continue to grow before it hits the earth.

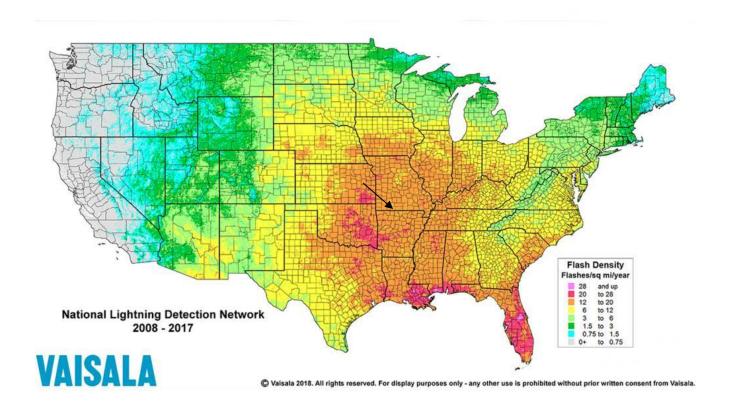
At the time when the updraft can no longer support the hailstone, it will fall down to the earth. For example, a ¼" diameter or pea sized hail requires updrafts of 24 miles per hour, while a 2 ¾" diameter or baseball sized hail requires an updraft of 81 miles per hour. According to the NOAA, the largest hailstone in diameter recorded in the United States was found in Vivian, South Dakota on July 23, 2010. It was eight inches in diameter, almost the size of a soccer ball. Soccer-ball-sized hail is the exception, but even small pea-sized hail can do damage.

Geographic Location

Thunderstorms, high winds, hail, and lightning events are an area-wide hazard that can happen anywhere in Taney County. Although these events occur similarly throughout the County, they are more frequently reported in the urbanized areas. In addition, damages are more likely to occur in more densely developed areas.

Figure 3.31 shows lightning frequency in the United States. Marked with a black arrow, Taney County is located in an area with an average flash density of 12-20 flashes/sq. mi/year.

Figure 3.31. Location and Frequency of Lightning in Missouri



Source: National Weather Service http://www.vaisala.com/en/products/thunderstormandlightningdetectionsystems/Pages/NLDN.aspx

Figure 3.32 shows wind zones in the United States. Taney County lies in Zone IV, the zone with the highest possible wind speeds in the country.

WIND ZONES IN THE UNITED STATES*

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Figure 3.32. Wind Zones in the United States

Source: FEMA 320, Taking Shelter from the Storm, 3rd edition, https://www.fema.gov/pdf/library/ism2_s1.pdf

Strength/Magnitude/Extent

Based on information provided by the Tornado and Storm Research Organization (TORRO), **Table 3.36** below describes typical damage impacts of the various sizes of hail.

Table 3.36. Tornado and Storm Research Organization Hailstorm Intensity Scale

Intensity Category	Diameter (mm)	Diameter (inches)	Size Description	Typical Damage Impacts
Hard Hail	5-9	0.2-0.4	Pea	No damage
Potentially Damaging	10-15	0.4-0.6	Mothball	Slight general damage to plants, crops
Significant	16-20	0.6-0.8	Marble, grape	Significant damage to fruit, crops, vegetation
Severe	21-30	0.8-1.2	Walnut	Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
Severe	31-40	1.2-1.6	Pigeon's egg > squash ball	Widespread glass damage, vehicle bodywork damage
Destructive	41-50	1.6-2.0	Golf ball > Pullet's egg	Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
Destructive	51-60	2.0-2.4	Hen's egg	Bodywork of grounded aircraft dented, brick walls pitted

Intensity Category	Diameter (mm)	Diameter (inches)	Size Description	Typical Damage Impacts
Destructive	61-75	2.4-3.0	Tennis ball > cricket ball	Severe roof damage, risk of serious injuries
Destructive	76-90	3.0-3.5	Large orange > Soft ball	Severe damage to aircraft bodywork
Super Hailstorms	91-100	3.6-3.9	Grapefruit	Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open
Super Hailstorms	>100	4.0+	Melon	Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open

Source: Tornado and Storm Research Organization (TORRO), Department of Geography, Oxford Brookes University. Notes: In addition to hail diameter, factors including number and density of hailstones, hail fall speed and surface wind speeds affect severity. http://www.torro.org.uk/site/hscale.php

Straight-line winds are defined as any thunderstorm wind that is not associated with rotation (i.e., is not a tornado). It is these winds, which can exceed 100 miles per hour, which represent the most common type of severe weather. They are responsible for most wind damage related to thunderstorms. Since thunderstorms do not have narrow tracks like tornadoes, the associated wind damage can be extensive and affect entire (and multiple) counties. Objects like trees, barns, outbuildings, high-profile vehicles, and power lines/poles can be toppled or destroyed, and roofs, windows, and homes can be damaged as wind speeds increase.

The onset of thunderstorms with lightning, high wind, and hail is generally rapid. Duration is less than six hours and warning time is generally six to twelve hours. Nationwide, lightning kills 75 to 100 people each year. Lightning strikes can also start structural and wildland fires, as well as damage electrical systems and equipment.

Previous Occurrences

Thunderstorm Winds

Table 3.37. NCEI Thunderstorm Wind Events in Taney County 2001-2020

Location	# of Events	Deaths	Injuries	Property Damage	Crop Damage
Unincorporated Taney County	69	0	1	\$953,000	\$0
City of Branson	45	0	1	\$204,000	\$0
City of Forsyth	25	0	0	\$61,000	\$0
City of Hollister	16	0	1	\$148,000	\$0
City of Merriam Woods	0	0	0	\$0	\$0
City of Rockaway Beach	10	0	0	\$55,000	\$0
Village of Bull Creek	0	0	0	\$0	\$0
Total	165	0	3	\$1,421,000	\$0

Source: NCEI Storm Events Database https://www.ncdc.noaa.gov/stormevents/

High Winds

Table 3.38. NCEI High Wind Events in Taney County 2001-2020

Location	# of Events	Deaths Injuries Property Damage		Crop Damage	
Unincorporated Taney County	1	0	0	\$0	\$0
City of Branson	0	0	0	\$0	\$0

City of Forsyth	0	0	0	\$0	\$0
City of Hollister	0	0	0	\$0	\$0
City of Merriam Woods	0	0	0	\$0	\$0
City of Rockaway	0	0	0	\$0	\$0
Village of Bull Creek	0	0	0	\$0	\$0
Total	1	0	0	\$0	\$0

Source: NCEI Storm Events Database https://www.ncdc.noaa.gov/stormevents/

Lightning

Table 3.39. NCEI Lightning Events in Taney County 2001-2020

Location	# of Events	Deaths	Injuries	Property Damage	Crop Damage
Unincorporated Taney County	0	0	0	\$0	\$0
City of Branson	4	0	0	\$780,000	\$0
City of Forsyth	0	0	0	\$0	\$0
City of Hollister	0	0	0	\$0	\$0
City of Merriam Woods	0	0	0	\$0	\$0
City of Rockaway Beach	0	0	0	\$0	\$0
Village of Bull Creek	0	0	0	\$0	\$0
Total	4	0	0	\$780,000	\$0

Source: NCEI Storm Events Database https://www.ncdc.noaa.gov/stormevents/

It should be noted that limitations to the use of NCEI reported lightning events include the fact that only lightning events that result in fatality, injury, and/or property and crop damage are in the NCEI.

Hail

Table 3.40. NCEI Hail Events in Taney County 2001-2020

Location	# of Events	Deaths	Injuries	Property Damage	Crop Damage
Unincorporated Taney County	63	0	0	\$625,000	\$0
City of Branson	25	0	0	\$500,000	\$0
City of Forsyth	31	0	0	\$0	\$0
City of Hollister	8	0	0	\$4,000	\$0
City of Merriam Woods	0	0	0	\$0	\$0
City of Rockaway Beach	5	0	0	\$0	\$0
Village of Bull Creek	0	0	0	\$0	\$0
Total	132	0	0	\$1,129,000	\$0

Source: NCEI Storm Events Database https://www.ncdc.noaa.gov/stormevents/

Probability of Future Occurrence

Thunderstorm Winds

There were 175 thunderstorm wind events that occurred in Taney County from 2001 to 2020 reported to the NCEI. This is an average of 8.75 events per year. This has resulted in a total loss over the period for \$1,464,000 in property damages.

High Winds

There is one reported high wind event that occurred in Taney County from 2001 to 2020. This accounts for a 5% chance of a high wind event (large enough to constitute reporting) occurring in any given year. There were no reported property damages.

Lightning

There were four reported lightning events that occurred in Taney County from 2001 to 2020. The events caused \$780,000 in property damage. It should be noted that limitations to the use of NCEI reported lightning events include the fact that only lightning events that result in fatality, injury, and/or property and crop damage are in the NCEI. Taking this into account, this gives a 20% chance of such a lightning event occurring in any given year.

Hail

There were 147 thunderstorm wind events that occurred in Taney County from 2001 to 2020 reported to the NCEI. This is an average of 7.35 events per year. This has resulted in a total loss over the period for \$1,174,000 in property damages.

Figure 3.33 is a map based on hailstorm data from 1980-1994. It shows the probability of hailstorm occurrence (2" diameter or larger based on number of days per year). Taney County is in the green zone on the map, which means the county should experience hail greater than 2" in diameter 1.25 days per year.

2.50 2.25 2.00 1.75 1.50 1.25 1.00 75 -50 -25 Hail (2 inch or more) Days Per Year (1980–1994)

Figure 3.33. Annual Hailstorm Probability (2" diameter or larger), U 1980- 1994

Source: NSSL, http://www.nssl.noaa.gov/users/brooks/public_html/bighail.gif

Changing Future Conditions Considerations

Increases in temperature and more frequent droughts will accelerate the evaporation of water into the atmosphere, which will produce higher water concentrations. Elevated levels of moisture raise the likelihood of severe thunderstorms and tornadoes. Lives and property are endangered when the risk of these events increases, especially in jurisdictions that do not have a community safe room or the funds to construct one. This kind of event also possesses the threat of increasing the magnitude and frequency of other hazard events like riverine flooding, sinkhole occurrence, and flash flooding, putting residents in even greater danger.

Vulnerability

Vulnerability Overview

Severe thunderstorm losses are usually attributed to the associated hazards of hail, downburst winds, lightning, and heavy rains. Losses due to hail and high wind are typically insured losses that are localized and do not result in presidential disaster declarations. However, in some cases, impacts are severe and widespread and assistance outside state capabilities is necessary. Hail and wind also can have devastating impacts on crops. Severe thunderstorms/heavy rains that lead to flooding are discussed in the flooding hazard profile. Hailstorms cause damage to property, crops, and the environment, and can injure and even kill livestock. In the United States, hail causes more than \$1 billion in damage to property and crops each year. Even relatively small hail can shred plants to ribbons in a matter of minutes. Vehicles, roofs of buildings and homes, and landscaping are also commonly damaged by hail. Hail has been known to cause injury to humans, sometimes fatal.

In general, assets in the county vulnerable to thunderstorms with lightning, high winds, and hail include people, crops, vehicles, and built structures. Although this hazard results in high annual losses, private property insurance and crop insurance usually cover the majority of losses. Considering insurance coverage as a recovery capability, the overall impact on jurisdictions is reduced.

Most lightning damages occur to electronic equipment located inside buildings. But structural damage can also occur when a lightning strike causes a building fire. In addition, lightning strikes can cause damages to crops if fields or forested lands are set on fire. Communications equipment and warning transmitters and receivers can also be knocked out by lightning strikes.

Potential Losses to Existing Development

The average annual loss determined from historical losses for thunderstorms, high wind, hail and lightning are indicators of the potential losses to existing development. Thunderstorm wind events in the county can damage critical facilities, schools, local governments, and private property. Potential annual losses throughout Taney County are:

Thunderstorm - \$73,200 Hail - \$58,700 High Winds - \$0 Lightning - \$39,000

Impact of Previous and Future Development

Development and population growth within Unincorporated Taney County, as well as in specific jurisdictions, including school and special districts, results in an increase of population and buildings. Development occurring in these areas will result in more exposure that is vulnerable to damages from thunderstorms, heavy winds, lightning, and precipitation.

Hazard Summary by Jurisdiction

Thunderstorms, heavy winds, lightning, and heavy precipitation affect areas with more structures built prior to 1939. Unincorporated Taney County and Hollister contain the highest amount of structures built 1939 or earlier, while Taneyville has the highest percentage with the jurisdiction. Jurisdictions which have building plans or feature building codes/ordinances within their Comprehensive/Land Use plans will be more effective in mitigating the effects of these hazards.

Community Comments on Hazard

Four of the responders to the community survey noted that they had been impacted by this disaster. One resident commented, "Strong thunderstorm blew a tree onto the house damaging it," while another noted, "a windstorm through our area took out 14 storm windows out of our building's top flood in 2018." Overall, responders were concerned about the likelihood of occurrence and potential impact of this hazard.

Problem Statement

Poorly built structures, barns, and outbuildings are more vulnerable to the impact of high winds during thunderstorms. High winds can topple utility poles and lead to power outages. Both high winds and hail can damage roofs. Hail can also damage crops and dent cars and trucks. Additionally, people are at risk to injury and death during high wind events. Crop insurance mitigates the risk to farmers and the agriculture sector within the county. Lightning events have caused structural fires, can strike electrical utilities leading to power outages, or strike municipal water systems causing water supply outages.

The risk of property damage, injury, and death in the county can be mitigated by identifying safe refuge areas in public buildings, nursing homes and other facilities that house vulnerable populations that do not have a safe room. The purchasing and installation of NOAA weather radios in schools, government buildings and public areas may assist in providing early warning to allow for public to seek shelter during high wind events. Education and hazard awareness programs in public schools would also increase public safety in the event of severe thunderstorm events. Additionally, school systems with existing alert systems may be utilized for severe weather notifications, and the county may investigate a county-wide alert system to provide important severe weather information.

3.4.8 Severe Winter Weather

Hazard Profile

Hazard Description

A major winter storm can last for several days and be accompanied by high winds, freezing rain or sleet, heavy snowfall, and cold temperatures. The National Weather Service describes different types of winter storm events as follows:

- **Blizzard** Winds of 35 miles per hour or more with snow and blowing snow reducing visibility to less than ¼ mile for at least three hours.
- **Blowing Snow** Wind-driven snow that reduces visibility. Blowing snow may be falling snow and/or snow on the ground picked up by the wind.
- Snow Squalls Brief, intense snow showers accompanied by strong, gusty winds.
 Accumulation may be significant.
- **Snow Showers** Snow falling at varying intensities for brief periods of time. Some accumulation is possible.

- Freezing Rain Measurable rain that falls onto a surface with a temperature below freezing.
 This causes it to freeze to surfaces, such as trees, cars, and roads, forming a coating or glaze
 of ice. Most freezing-rain events are short lived and occur near sunrise between the months of
 December and March.
- **Sleet** Rain drops that freeze into ice pellets before reaching the ground. Sleet usually bounces when hitting a surface and does not stick to objects.

Geographic Location

The entire county is vulnerable to heavy snow, ice, extreme cold temperatures, and freezing rain. Figure 3.34 depicts the average number of hours per year with freezing rain. Taney County is located in a zone that can expect 18-21 hours of freezing rain per year.

Haars
0
0
10-1
23-6
18-19
18-18
18-21
25-24

Figure 3.34. NWS Statewide Average Number of Hours per Year with Freezing Rain

 $Source: American \ Meteorological \ Society. \ "Freezing \ Rain \ Events \ in \ the \ United \ States." \ \underline{http://ams.confex.com/ams/pdfpapers/71872.pdf}$

Strength/Magnitude/Extent

Severe winter storms include heavy snowfall, ice, and strong winds which can push the wind chill well below zero degrees in Taney County.

For severe weather conditions, the National Weather Service issues the following warnings as conditions warrant across the State of Missouri. NWS local offices in Missouri may collaborate with local partners to determine when an alert should be issued for a local area.

- Winter Weather Advisory Winter weather conditions are expected to cause significant inconveniences and may be hazardous. If caution is exercised, these situations should not become life threatening. Often the greatest hazard is to motorists.
- Winter Storm Watch Severe winter conditions, such as heavy snow and/or ice are possible within the next day or two.
- Winter Storm Warning Severe winter conditions have begun or are about to begin.
- **Blizzard Warning** Snow and strong winds will combine to produce a blinding snow (near zero visibility), deep drifts, and life-threatening wind chill.
- Ice Storm Warning Dangerous accumulations of ice are expected with generally over one quarter inch of ice on exposed surfaces. Travel is impacted, and widespread downed trees and power lines often result.
- Wind Chill Advisory Combination of low temperatures and strong winds will result in wind chill readings of -20 degrees F or lower.
- **Wind Chill Warning** Wind chill temperatures of -35 degrees F or lower are expected. This is a life-threatening situation.

Previous Occurrences

Table 3.41 describes the NCEI reported winter events and damages from 2001 – 2020.

Table 3.41. NCEI Taney County Winter Weather Events Summary, 2001-2020

Type of Event	Inclusive Dates	Magnitude	# of Injuries	Property Damages	Crop Damages
Blizzard	-	-	-	•	-
Extreme Cold/Wind Chill	(01/01/2001)	-	0	\$0	\$0
Heavy Snow	-	-	-	•	-
Ice Storm	(02/11/2008), (02/21/2008), (01/26/2009)	-	0	\$0	\$0
Sleet	-	-	-	-	-
Winter Storm	(12/04/2002), (02/06/2003), (02/23/2003), (02/05/2004), (11/30/2006), (01/20/2007), (01/31/2008), (01/28/2010), (02/01/2011), (02/21/2013), (12/05/2013), (01/05/2014), (03/02/2014), (02/15/2015), (02/20/2015), (03/04/2015)	-	0	\$0	\$0
Winter Weather	(02/10/2018), (02/15/2019), (12/13/2020)	-	0	\$0	\$0

Source: NCEI https://www.ncdc.noaa.gov/stormevents/

During this time frame, the most notable severe winter weather event occurred in January of 2007. Several counties in Southwest Missouri, mainly along the I-44 corridor, suffered ice accumulation of up to 2.5 inches. This disaster caused catastrophic tree damages and power outages lasting weeks in many areas as well as several indirect deaths as a result of the dangerous elements. This event warranted a FEMA disaster declaration and resulted in a Public Assistance grant of \$106,468,427.80 for the impacted counties in Missouri (FEMA.gov). However, it is important to note that Taney County avoided most of the damage from this event.

Winter storms, cold, frost and freeze have not taken a major toll on crop production in the planning area. There are no reported crop losses in Taney County due to cold conditions or snow.

Probability of Future Occurrence

The probability for all of the different types of winter weather events are included as one probability, since one storm generally includes multiple types of events. There were 23 severe winter storm events in **Taney** County from 2001 to 2020. This equates to an average of 1.15 winter storm events occurring every year.

Changing Future Conditions Considerations

A shorter overall winter season and fewer days of extreme cold may have both positive and negative indirect impacts. Warmer winter temperatures may result in changing distributions of native plant and animal species and/or an increase in pests and non-native species. Warmer winter temperatures will result in a reduction of lake ice cover. Reduced lake ice cover impacts aquatic ecosystems by raising water temperatures. Water temperature is linked to dissolved oxygen levels and many other environmental parameters that affect fish, plant, and other animal populations. A lack of ice cover also leaves lakes exposed to wind and evaporation during a time of year when they are normally protected.

As both temperature and precipitation increase during the winter months, freezing rain will be more likely. Additional wintertime precipitation in any form will contribute to saturation and increase the risk and/or severity of spring flooding. A greater proportion of wintertime precipitation may fall as rain rather than snow.

Vulnerability

Vulnerability Overview

Heavy snow can bring a community to a standstill by inhibiting transportation (in whiteout conditions), weighing down utility lines, and by causing structural collapse in buildings not designed to withstand the weight of the snow. Repair and snow removal costs can be significant. Ice buildup can collapse utility lines and communication towers, as well as make transportation difficult and hazardous. Ice can also become a problem on roadways if the air temperature is high enough that precipitation falls as freezing rain rather than snow.

Buildings with overhanging tree limbs are more vulnerable to damage during winter storms when limbs fall. Businesses experience loss of income as a result of closure during power outages. In general, heavy winter storms increase wear and tear on roadways though the cost of such damages is difficult to determine. Businesses can experience loss of income as a result of closure during winter storms.

Overhead power lines and infrastructure are also vulnerable to damages from winter storms. In particular ice accumulation during winter storm events damage to power lines due to the ice weight on the lines and equipment. Damages also occur to lines and equipment from falling trees and tree limbs weighted down by ice. Potential losses could include cost of repair or replacement of damaged facilities and lost economic opportunities for businesses.

Secondary effects from loss of power could include burst water pipes in homes without electricity during winter storms. Public safety hazards include risk of electrocution from downed power lines. Specific amounts of estimated losses are not available due to the complexity and multiple variables associated with this hazard. Standard values for loss of service for utilities reported in FEMA's 2009 BCA Reference Guide, the economic impact as a result of loss of power is \$126 per person per day of lost service.

In the 2018 State Plan, the five factors were considered in determining overall severe winter storm vulnerability were housing density, building exposure, social vulnerability, likelihood of occurrence, and

average annual property loss. The state ranked each of these criteria using a scale from one to five, one being lowest and five being the highest, to rank each county's vulnerability to severe winter weather. Taney County received the following vulnerability rating for each criterion:

Housing Density Rating: 2 (low-medium)

• Building Exposure: 2 (low-medium)

• Social Vulnerability: 5 (high)

• Likelihood of Occurrence: 1 (low)

Average Annual Property Loss: 2 (low-medium)

This equates to an overall vulnerability rating of medium.

Potential Losses to Existing Development

During the 20-year period from 2001 to 2020, Taney County suffered a total of \$0 in property and crop damages due to severe winter weather.

Impact of Previous and Future Development

Increased development and any resulting increases in population will increase exposure to damage from severe winter weather. Future commercial development can expect functional downtime and decreased revenues during periods of severe winter weather. Future construction of facilities that will serve vulnerable populations will need to be prepared for extreme weather conditions. Road construction in the county will increase the need for snow removal and salt to keep transportation lifelines open during periods of severe winter weather. Any increase in agriculture crop production will also increase the risk of exposure.

Hazard Summary by Jurisdiction

Severe winter weather can cause power outages and put structures at risk to fires when individuals in homes resort to fuel heaters. The risk of extreme cold deaths and frostbite varies among segments of the populations. People over 65 and those living below the poverty level have an increased vulnerability to severe winter weather. **Table 3.42** includes information on populations over 65 and the percent living below the poverty level by jurisdiction.

Table 3.42. Taney County Population Living Below the Poverty Line

Jurisdiction	% of Families Living Below the Poverty Line	Population Over 65	Population Over 65 (Percentage)
Unincorporated Taney County	14.7	11,729	21.3%
City of Branson	16.7	2,854	25.0%
City of Forsyth	22.5	778	30.5%
City of Hollister	17.9	837	18.5%
City of Merriam Woods	28.2	221	10.0%
City of Rockaway Beach	16.9	141	16.2%
Village of Bull Creek	30.8	32	6.5%

Source: 2019 American Community Survey, 5-Year Estimates

Community Comments on Hazard

One responder to the community survey noted that they had been impacted by this disaster, specifically an ice storm. Overall, responders weren't overly concerned about this disaster, but they were aware of the potential threat it poses. 36% of responders felt this hazard is highly likely to occur and 35% feel this hazard could have a critical impact on their community if it were to occur.

Problem Statement

Heavy snow can bring a community to a standstill by inhibiting transportation (in whiteout conditions), weighing down utility lines, and by causing structural collapse in buildings not designed to withstand the weight of the snow. Repair and snow removal costs can be significant. Ice buildup can collapse utility lines and communication towers, as well as make transportation difficult and hazardous. People over 65 and those living in poverty have an increased risk of hypothermia and frostbite due to extreme cold and wind chill.

Organizing outreach to at-risk populations, including establishing and promoting accessible heating and cooling centers can help reduce the potential exposure to harsh winter weather. Additionally, identifying debris disposal and burning locations can assist in facilitating recovery efforts after a significant winter storm or ice incident. An automated alert system could also be utilized to notify residents of incoming winter weather and warming locations in the community.

3.4.9 Tornado

Hazard Profile

Hazard Description

Essentially, tornadoes are a vortex storm with two components of winds. The first is the rotational winds that can measure up to 500 miles per hour, and the second is an uplifting current of great strength. The dynamic strength of both these currents can cause vacuums that can overpressure structures from the inside.

Although tornadoes have been documented in all 50 states, most of them occur in the central United States. The unique geography of the central United States allows for the development of thunderstorms that spawn tornadoes. The jet stream, which is a high-velocity stream of air, determines which area of the central United States will be prone to tornado development. The jet stream normally separates the cold air of the north from the warm air of the south. During the winter, the jet stream flows west to east from Texas to the Carolina coast. As the sun "moves" north, so does the jet stream, which at summer solstice flows from Canada across Lake Superior to Maine. During its move northward in the spring and its recession south during the fall, the jet stream crosses Missouri, causing the large thunderstorms that breed tornadoes.

Tornadoes spawn from the largest thunderstorms. The associated cumulonimbus clouds can reach heights of up to 55,000 feet above ground level and are commonly formed when Gulf air is warmed by solar heating. The moist, warm air is overridden by the dry cool air provided by the jet stream. This cold air presses down on the warm air, preventing it from rising, but only temporarily. Soon, the warm air forces its way through the cool air and the cool air moves downward past the rising warm air. This air movement, along with the deflection of the earth's surface, can cause the air masses to start rotating. This rotational movement around the location of the breakthrough forms a vortex, or funnel. If the newly created funnel stays in the sky, it is referred to as a funnel cloud. However, if it touches the ground, the funnel officially becomes a tornado.

A typical tornado can be described as a funnel-shaped cloud that is "anchored" to a cloud, usually a cumulonimbus that is also in contact with the earth's surface. This contact on average lasts 30 minutes and covers an average distance of 15 miles. The width of the tornado (and its path of destruction) is usually about 300 yards. However, tornadoes can stay on the ground for upward of 300 miles and can be up to a mile wide. The National Weather Service, in reviewing tornadoes occurring in Missouri between 1950 and 1996, calculated the mean path length at 2.27 miles and the mean path area at 0.14

square mile.

The average forward speed of a tornado is 30 miles per hour but may vary from nearly stationary to 70 miles per hour. The average tornado moves from southwest to northeast, but tornadoes have been known to move in any direction. Tornadoes are most likely to occur in the afternoon and evening but have been known to occur at all hours of the day and night.

Geographic Location

There are no specific likely locations for future occurrences as the threat from this hazard is countywide.

Strength/Magnitude/Extent

Tornadoes are the most violent of all atmospheric storms and are capable of tremendous destruction. Wind speeds can exceed 250 miles per hour and damage paths can be more than one mile wide and 50 miles long. Tornadoes have been known to lift and move objects weighing more than 300 tons a distance of 30 feet, toss homes more than 300 feet from their foundations, and siphon millions of tons of water from water bodies. Tornadoes also can generate a tremendous amount of flying debris or "missiles," which often become airborne shrapnel that causes additional damage. If wind speeds are high enough, missiles can be thrown at a building with enough force to penetrate windows, roofs, and walls. However, the less spectacular damage is much more common.

Tornado magnitude is classified according to the EF- Scale (or the Enhanced Fujita Scale, based on the original Fujita Scale developed by Dr. Theodore Fujita, a renowned severe storm researcher). The EF-Scale (see **Table 3.43**) attempts to rank tornadoes according to wind speed based on the damage caused. This update to the original F Scale was implemented in the U.S. on February 1, 2007.

Table 3.43. Enhanced F Scale for Tornado Damage

FUJITA SCALE			DERIVED	EF SCALE	OPERATIONAL EF SCALE		
F Number	Fastest 1/4	3 Second	EF Number	3 Second	EF Number	3 Second	
	Mile (mph)	Gust (mph)		Gust (mph)		Gust (mph)	
0	40-72	45-78	0	65-85	0	65-85	
1	73-112	79-117	1	86-109	1	86-110	
2	113-157	118-161	2	110-137	2	111-135	
3	158-207	162-209	3	138-167	3	136-165	
4	208-260	210-261	4	168-199	4	166-200	
5	261-318	262-317	5	200-234	5	Over 200	

Source: The National Weather Service, www.spc.noaa.gov/fag/tornado/ef-scale.html

The wind speeds for the EF scale and damage descriptions are based on information on the NOAA Storm Prediction Center as listed in **Table 3.44**. The damage descriptions are summaries. For the actual EF scale, it is necessary to look up the damage indicator (type of structure damaged) and refer to the degrees of damage associated with that indicator. Information on the Enhanced Fujita Scale's damage indicators and degrees or damage is located online at www.spc.noaa.gov/efscale/ef-scale.html.

Table 3.44. Enhanced Fujita Scale with Potential Damage

	Enhanced Fujita Scale				
	Wind Speed	Relative			
Scale	(mph)	Frequency	Potential Damage		
EF0	65-85	53.5%	Light. Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over. Confirmed tornadoes with no reported damage (i.e. those that remain in open fields) are always rated EF0).		

EF1	86-110	31.6%	Moderate. Roofs severely stripped; mobile homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF2	111-135	10.7%	Considerable. Roofs torn off well-constructed houses; foundations of frame homes shifted; mobile homes complete destroyed; large trees snapped or uprooted; light object missiles generated; cars lifted off ground.
EF3	136-165	3.4%	Severe. Entire stores of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations blown away some distance.
EF4			Devastating. Well-constructed houses and whole frame houses completely levelled; cars thrown and small missiles generated.
EF5	>200	<0.1%	Explosive. Strong frame houses levelled off foundations and swept away; automobile-sized missiles fly through the air in excess of 300 ft.; steel reinforced concrete structure badly damaged; high rise buildings have significant structural deformation; incredible phenomena will occur.

Source: NOAA Storm Prediction Center, http://www.spc.noaa.gov/efscale/ef-scale.html

Enhanced weather forecasting has provided the ability to predict severe weather likely to produce tornadoes days in advance. Tornado watches can be delivered to those in the path of these storms several hours in advance. Lead time for actual tornado warnings is about 30 minutes. Tornadoes have been known to change paths very rapidly, thus limiting the time in which to take shelter. Tornadoes may not be visible on the ground if they occur after sundown or due to blowing dust or driving rain and hail.

Previous Occurrences

There are limitations to the use of NCEI tornado data that must be noted. For example, one tornado may contain multiple segments as it moves geographically. A tornado that crosses a county line or state line is considered a separate segment for the purposes of reporting to the NCEI. Also, a tornado that lifts off the ground for less than 5 minutes or 2.5 miles is considered a separate segment. If the tornado lifts off the ground for greater than 5 minutes or 2.5 miles, it is considered a separate tornado. Tornadoes reported in Storm Data and the Storm Events Database are in segments. **Table 3.45** below provides details on tornadoes in Taney County since 1993.

Table 3.45. Recorded Tornadoes in Taney County, 1993 – Present

Date	Beginning Location	Ending Location	Length (miles)	Width (yards)	F/EF Rating	Death	Injury	Property Damage	Crop Damages
04/27/1994	Forsyth	Forsyth	0.5	30	F0	0	0	\$500	\$0
06/08/1995	Forsyth	Forsyth	0.1	100	F0	0	0	\$0	\$0
03/11/2006	Branson	Forsyth	8	20	F0	0	0	\$0	\$0
01/08/2008	Branson Mem. Arpt	Pt. Lookout Arpt	2.88	20	EF0	0	0	\$75,000	\$0
05/08/2009	Swan	Swan	2.76	150	EF1	0	0	\$500,000	\$0
04/24/2010	Branson Mem. Arpt	Branson Mem. Arpt	0.51	70	EF0	0	0	\$20,000	\$0
05/22/2011	Day	Day	4.75	200	EF1	0	0	\$50,000	\$0
02/29/2012	Branson Mem. Arpt	Kissee Mills	16.54	400	EF2	0	37	\$15,000,000	\$0
03/09/2017	Ike	Ike	0.1	75	EF0	0	0	\$20,000	\$0
03/09/2017	Forsyth	Forsyth	1.9	100	EF0	0	0	\$100,000	\$0
05/19/2017	Branson Mem. Arpt	Branson Mem. Arpt	0.25	75	EF0	0	1	\$10,000	\$0
05/19/2017	Rockaway Beach	Taneyville	8.7	200	EF1	0	0	\$0	\$0

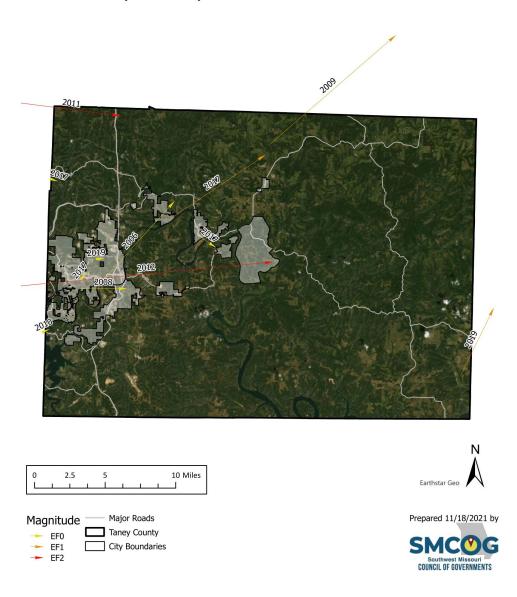
04/30/2019	Protem	Protem	1.72	100	EF1	0	0	\$0	\$0
04/30/2019	Branson Mem. Arpt	Branson	1.02	75	EF0	0	0	\$20,000	\$0
04/28/2021	Ike	lke	0.09	50	EF0	0	0	\$25,000	\$0
04/28/2021	Walnut Shade	Walnut Shade	0.57	50	EF0	0	0	\$125,000	\$0

Source: National Centers for Environmental Information, http://www.NCEI.noaa.gov/stormevents/

Figure 3.35 shows historic tornado paths in Taney County.

Figure 3.35. Taney County Map of Historic Tornado Events

Taney County Tornadoes 2000-Present



Source: Missouri Tornado History Project, http://www.tornadohistoryproject.com/tornado/Missouri

Probability of Future Occurrence

Over a 20-year period from 2001 to 2020, there were a total of 12 tornado events record by the NCEI in Taney County, 9 of which were damaging events. This means there is a 60% chance there will be a tornado event and a 45% chance for a damaging tornado event in any given year. Of the 31 total tornadoes, 11 caused \$15,795,000 in total property damage. It should be noted that \$15,000,000 of the total property damage comes from one tornado in 2012 that started at Branson Memorial Airport.

Changing Future Conditions Considerations

Scientists do not know how the frequency and severity of tornadoes will change. Research published in 2015 suggests that changes in heat and moisture content in the atmosphere, brought on by a warming world, could be playing a role in making tornado outbreaks more common and severe in the U.S. The research concluded that the number of days with large outbreaks have been increasing since the 1950s and that densely concentrated tornado outbreaks are on the rise. It is notable that the research shows that the area of tornado activity is not expanding, but rather the areas already subject to tornado activity are seeing the more densely packed tornadoes. Because Missouri experiences on average around 39.6 tornadoes a year, such research is closely followed by meteorologists in the state.

Vulnerability

Vulnerability Overview

According to the 2018 State Plan, the following six factors were considered in determining overall tornado vulnerability: building exposure, population density, social vulnerability, percentage of mobile homes, likelihood of occurrence, and annual property loss. The state ranked each of these criteria using a scale from one to five, one being lowest and five being the highest, ranking each county's vulnerability to tornadoes.

Taney County received the following vulnerability rating for each factor: building exposure -2 (low-medium), population density -1 (low), social vulnerability -5 (high), percentage of mobile homes -3 (medium), likelihood of occurrence -1 (low), and annual property loss -1 (low). This equates to an overall vulnerability rating of medium.

Figure 3.36 illustrates areas where dangerous tornadoes historically have occurred.

North Dakota

North Dakota

South Dakota

Nebraska

Colorado

Kansas

Kansas

Tornado Alley

Texas

Tornado Alley

Figure 3.36. Tornado Alley in the U.S.

Source: http://www.tornadochaser.net/tornalley.html

Potential Losses to Existing Development

From 1993-2021, a period of 28 years, a total of \$15,945,500 worth of damage occurred in Taney County. Out of the 16 tornadoes, 12 were damaging, equating to an 75% probability of a damaging event occurring and an average potential damage of \$569,482.14 per year. Of the 16 reported tornados, 1 was EF2, 4 were EF1, and the remaining 11 were EF/F0 on the Fujita Scale.

Potential losses for each jurisdiction were estimated based on the total exposure with an applied damage factor of 1% - an estimate of the average damage a tornado could cause in a community. **Table 3.46** provides a summary of the estimated total losses for each participating jurisdiction.

Table 3.46. Estimated Potential Tornado Losses by Jurisdiction

Jurisdiction	Total Exposure	Estimated Losses
Taney County	\$4,283,126,500.00	\$42,831,265.00
Branson	\$3,984,347,500.00	\$39,843,475.00
Forsyth	\$371,088,000.00	\$3,710,880.00
Hollister	\$598,905,500.00	\$5,989,055.00
Merriam Woods	\$152,815,500.00	\$1,528,155.00
Rockaway Beach	\$141,081,000.00	\$1,410,810.00
Bull Creek	\$56,310,500.00	\$563,105.00
Total	\$9,587,674,500.00	\$95,876,745.00

Impact of Previous and Future Development

Development across the county and within incorporated jurisdictions increases the potential for losses. From 1993 to 2021, the average annual losses countywide were \$569,482.14. This indicates the potential future losses if the current development were to remain with no additional development. Future development and population increases will increase exposure to damage. It is anticipated that some communities may experience new development, but those communities that enforce building codes may help reduce the risk of building damage.

Hazard Summary by Jurisdiction

Although tornado events are area-wide hazard, communities with a greater percentage of structures built prior to 1939 are considered to be more vulnerable to the impact of high wind and hail damage. This means that the unincorporated county, Hollister, and Taneyville are the most vulnerable of the jurisdictions in Taney County.

Community Comments on Hazard

Seven of the responders to the community survey indicated they had been impacted by a tornado. Nearly 80% of all responders indicated if a tornado was to occur, it would have a critical or catastrophic impact. Of the sample project types that may be funded by FEMA mitigation grants provided in the survey, "new tornado safe room construction" consistently scored towards the top as the most desirable.

Problem Statement

Tornadoes are the most violent of all atmospheric storms and are capable of tremendous destruction. Wind speeds can exceed 250 miles per hour and damage paths can be more than one mile wide and 50 miles long. From 2001 to 2020, tornado events in Taney County have resulted in 38 injuries, and \$15,795,000 in property damage. Information in the 2018 State Plan indicates that Taney County has a medium vulnerability to tornados.

The risk of property damage, injury, and death in the county can be mitigated by constructing FEMA saferooms in facilities that house vulnerable populations such as nursing homes, government buildings, and schools. Additionally, identifying safe refuge areas in public buildings, nursing homes and other facilities that house vulnerable populations that do not have a safe room can mitigate injury and loss of life. Retrofitting school district facilities with protective filming of windows and installation of storm proof doors will provide more protection for students and staff at school facilities. Promoting the installation of NOAA weather radios, and additional warnings and alerts systems such as Swift 911 or Nixle, will also provide the public and schools more time to find shelter during tornado events.

3.4.10 Wildfire

Hazard Profile

Hazard Description

The fire incident types for wildfires include: 1) natural vegetation fire, 2) outside rubbish fire, 3) special outside fire, and 4) cultivated vegetation, crop fire.

The Forestry Division of the Missouri Department of Conservation (MDC) is responsible for protecting privately owned and state-owned forests and grasslands from wildfires. To accomplish this task, eight

forestry regions have been established in Missouri for fire suppression. The Forestry Division works closely with volunteer fire departments and federal partners to assist with fire suppression activities. Currently, more than 900 rural fire departments in Missouri have mutual aid agreements with the Forestry Division to obtain assistance in wildfire protection if needed.

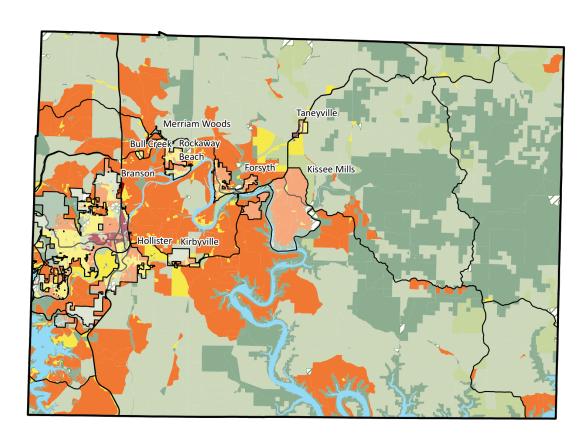
Most of Missouri fires occur during the spring season between February and May. The length and severity of wildland fires depends largely on weather conditions. Spring in Missouri is usually characterized by low humidity and high winds. These conditions result in higher fire danger. In addition, due to the recent lack of moisture throughout many areas of the state, conditions are likely to increase the risk of wildfires. Drought conditions can also hamper firefighting efforts, as decreasing water supplies may not prove adequate for firefighting. It is common for rural residents burn their garden spots, brush piles, and other areas in the spring. Some landowners also believe it is necessary to burn their forests in the spring to promote grass growth, kill ticks, and reduce brush. Therefore, spring months are the most dangerous for wildfires. The second most critical period of the year is fall. Depending on the weather conditions, a sizeable number of fires may occur between mid-October and late November.

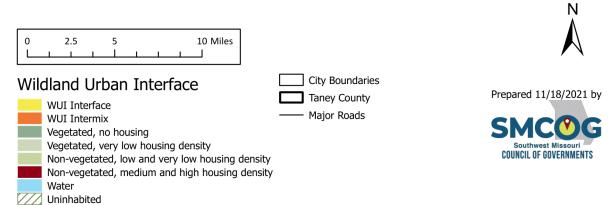
Geographic Location

Damages due to wildfires are higher in communities with more Wildland-Urban Interface (WUI) areas. The term refers to the zone of transition between unoccupied land and human development and needs to be defined in the plan. Within the WUI, there are two specific areas identified: 1) Interface and 2) Intermix. The interface areas are those areas that abut wildland vegetation and the intermix areas are those areas that intermingle with wildland areas. **Figure 3.37** shows the WUI and **Figure 3.38** shows the risk assessment of Taney county.

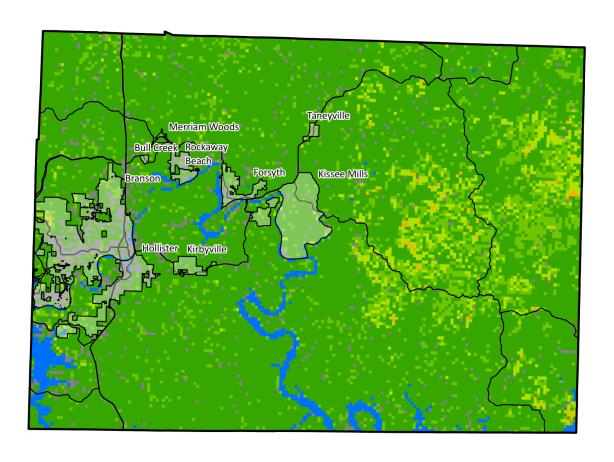
Figure 3.37. Taney County Wildland Intermix and Wildfire Prone Areas

Taney County Wildland Urban Interface





Taney County Wildfire Hazard Potential





Strength/Magnitude/Extent

Wildfires damage the environment, killing some plants and occasionally animals. Firefighters have been injured or killed, and structures can be damaged or destroyed. The loss of plants can heighten the risk of soil erosion and landslides. Although Missouri wildfires are not the size and intensity of those in the Western United States, they could impact recreation and tourism in and near the fires.

Wildland fires in Missouri have been mostly a result of human activity rather than lightning or some other natural event. Wildfires in Missouri are usually surface fires, burning the dead leaves on the ground or dried grasses. They do sometimes "torch" or "crown" out in certain dense evergreen stands like eastern red cedar and shortleaf pine. However, Missouri does not have the extensive stands of evergreens found in the western US that fuel large fire storms.

While very unusual, crown fires can and do occur in Missouri native hardwood forests during prolonged periods of drought combined with extreme heat, low relative humidity, and high wind. Tornadoes, high winds, wet snow, and ice storms in recent years have placed a large amount of woody material on the forest floor that causes wildfires to burn hotter and longer. These conditions also make it more difficult for fire fighters to suppress fires safely.

Often wildfires in Missouri go unnoticed by the general public because the sensational fire behavior that captures the attention of television viewers is rare in the state. Yet, from the standpoint of destroying homes and other property, Missouri wildfires can be quite destructive.

Previous Occurrences

According to the Missouri Department of Conservation (MDC) Wildfire Data, there were a total of 1,169 wildfires in Taney County from 2001 to 2020. 12,749.76 acres were burned, 423 buildings were threatened, 31 buildings were damaged, and 16 buildings were destroyed. The most damage occurred in 2013, which accounted for 8% of the total wildfires, 3% of the total acres burned, and 9% of all buildings threatened, 7% of all buildings damaged, and 44% of all buildings destroyed. **Table 3.47** shows MDC wildfire statistics by year.

Table 3.47. Taney County Wildfires 2001-2020

Year	Number of Wildfires	Buildings Destroyed	Buildings Damaged	Buildings Threatened	Acres Burned
2001	n/a	n/a	n/a	n/a	n/a
2002	1	n/a	n/a	n/a	30
2003	5	n/a	n/a	n/a	17
2004	33	n/a	n/a	n/a	1,725
2005	16	n/a	n/a	n/a	432
2006	30	n/a	n/a	n/a	1,255
2007	16	0	1	9	17
2008	21	0	0	16	182
2009	155	1	6	40	1,105
2010	109	0	5	45	648
2011	125	0	8	48	1,179
2012	139	0	2	61	1,852
2013	88	7	3	36	394
2014	105	0	6	48	332
2015	73	1	3	29	174.2
2016	95	2	4	14	950
2017	88	0	0	32	354.29
2018	30	4	0	19	1,784.42
2019	12	1	3	25	22.77

2020	28	0	0	1	296.08
Totals	1,169	16	41	423	12,749.76

Source: Missouri Department of Conservation MDC Wildfire Reporting (mo.gov)

Note: There is no wildfire data reported for 2001, and from 2002 to 2006, there is no data for buildings threatened, damaged, or destroyed.

Probability of Future Occurrence

There were a total of 1,169 reported wildfires from 2001 to 2020, with several events taking place each year. This equates to a 100% probability of wildfire events in Taney County in any given year, with an average of 58.5 events per year.

Changing Future Conditions Considerations

Higher temperatures and changes in rainfall are unlikely to substantially reduce forest cover in Missouri, although the composition of trees in the forests may change. More droughts would reduce forest productivity, and changing future conditions are also likely to increase the damage from insects and diseases. But longer growing seasons and increased carbon dioxide concentrations could more than offset the losses from those factors. Forests cover about one-third of the state, dominated by oak and hickory trees. As the climate changes, the abundance of pines in Missouri's forests is likely to increase, while the population of hickory trees is likely to decrease.

Higher temperatures will also reduce the number of days prescribed burning can be performed. Reduction of prescribed burning will allow for growth of understory vegetation – providing fuel for destructive wildfires. Drought is also anticipated to increase in frequency and intensity during summer months under projected future scenarios. Drought can lead to dead or dying vegetation and landscaping material close to structures which creates fodder for wildfires within both the urban and rural settings.

Vulnerability

Vulnerability Overview

Wildfires occur throughout wooded and open vegetation areas of Missouri. They can occur any time of the year, but mostly occur during long, dry hot spells. Any small fire, if not quickly detected and suppressed, can get out of control. Most wildfires are caused by human carelessness or negligence. However, some are precipitated by lightning strikes and in rare instances, spontaneous combustion. Structures and people in WUI areas in the county and cities are more vulnerable to the impact of wildfires due to the level of fuel mixed with structures.

Potential Losses to Existing Development

Based on historical data, we can estimate that, on average, 4.1 buildings are destroyed or damaged per year in Taney County due to wildfires, 30.2 buildings are threatened, and 671.04 acres of land are burned.

Impact of Previous and Future Development

It is anticipated that there will be limited future development in WUI areas throughout the unincorporated parts of the county. Future growth in WUI areas of the county will increase the risk and exposure to wildfires. It is expected that WUI development in cities can be mitigated by development regulations reducing the risk of potential wildfires.

Hazard Summary by Jurisdiction

This hazard is the primary focus of participating special fire protection districts in the county. The Western Taney County Fire Protection District is the only participating fire protection district. As many local jurisdictions do not have municipal fire departments, this special district are important to all communities for protection against wildfire and assisting in reducing exposure to wildfire risk.

Table 3.48 summarizes the structure exposure for Taney County and cities. Structure counts and exposure values were derived by overlaying parcel data from the Taney County Assessor with the WUI data. The exposure amount indicates the dollar amount of assets at risk and the variability of vulnerability from place to place.

Table 3.48. Wildfire Structure Exposure by Jurisdiction

Jurisdiction	Residential Buildings	Commercial Buildings	Agricultural Buildings	Total Exposure
Taney County	10,082	498	1,250	\$428,957,142
City of Branson	2,671	738	38	\$318,277,424
City of Forsyth	816	65	16	\$27,261,770
City of Hollister	1,180	95	21	\$41,701,624
City of Merriam Woods	826	5	11	\$9,628,120
City of Rockaway Beach	342	36	1	\$6,508,960
Village of Bull Creek	61	2	4	\$2,921,910
Total	15,978	,1439	1,341	\$835,256,950

Community Comments on Hazard

While five of the responders to the community survey indicated they had been affected by this hazard, the survey responses as a whole were not overly concerned. Wildfire Mitigation scored the second lowest on the list of sample project types, 70% of responders thought it was unlikely or occasionally likely to occur, and 43% thought it would have limited impact if it were to occur.

Problem Statement

Wildfire occurrences are frequent within Taney County. These events can destroy, damage, and threaten structures in hazard prone areas. Populations and structures in WUI areas of the county have an increased risk to wildfires due to the level of fuel mixed with structures. Cities may adopt landscape ordinances that include fire safe landscape design requirements in these areas. They may also adopt building codes or design requirements that encourage non-combustible materials for new construction.

The unincorporated part of the county has some of the highest risk and exposure to wildfires. County officials and fire departments can implement burn restrictions during weather conditions conducive to the spread of wildfire. Additionally, understanding highest risk locations and developing safe evacuation routes that members of the public are aware can reduce the risk of loss of life or injury.

1	MIT	TIGATION STRATEGY	4.1
	4.1	Goals	
	4.2	Identification and Analysis of Mitigation Actions	4.2
	4.3	Implementation of Mitigation Actions	4.6
	Goa	al 1: Protect the lives and livelihoods of all citizens.	4.10
	Goa	al 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local	
	eco	onomy	4.106
		al 3: Ensure continued operation of government, emergency functions and critical infrastructur	
	disa	aster	4.152

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 risk assessment. The mitigation strategy was developed through a collaborative group process. The process included review of 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 Taney County's existing hazard mitigation plan approved by FEMA on November 21, 2017. Therefore, the goals from the 2017 Taney 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.

During this update process, the MPC opted to adopt the same goals that were developed during the 2017 update. The plan goals are as follows:

Goal 1: Protect the lives and livelihoods of all citizens.

Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy.

Goal 3: Ensure continued operation of government, emergency functions and critical infrastructure in a disaster

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.

The plan includes a mitigation strategy that 1) analyzes actions and/or projects that the jurisdiction considered to reduce the impacts of hazards identified in the risk assessment, and 2) identifies the actions and/or projects that the jurisdiction intends to implement. Each jurisdiction has considered actions that reduce risk to existing buildings and infrastructure, as well as limiting risk to future development and redevelopment. These actions fall under several categories: prevention, structure and infrastructure projects, natural systems protection, emergency services, and education and outreach. The mitigation plan may include non-mitigation actions, such as actions that are emergency response or operational preparedness in nature.

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.

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 possible methods to reduce that risk. Use of the problem statements allowed the MPC to recognize new and innovative strategies for mitigate risks in the planning area.

Jurisdiction representatives on the MPC were encouraged to review the details of the risk assessment vulnerability analysis specific to their jurisdiction and the previously identified mitigation actions prior to Meeting #3. Representatives were provided a link to the FEMA's publication, *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards* (January 2013) as well as *Hazard Mitigation Assistance Guidance: Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program* (February 2015). These documents were developed by FEMA as a resource for identification of a range of potential mitigation actions for reducing risk to natural hazards and disasters.

The focus of meetings #3 and #4 was to update the mitigation strategy. For a comprehensive range of mitigation actions to consider, the MPC reviewed the following information during meeting #3:

- A list of actions proposed in the previous mitigation plan,
- Input during meetings
- Key issues from the risk assessments
- Responses to data collection questionnaires where jurisdictions had reported progress made on previous actions

The MPC reviewed the actions from the previously approved plan for progress made since the

plan had been adopted. The list of previous actions was included in the data collection questionnaire for each jurisdiction. The questionnaires were sent via email prior to meeting #1 and reviewed at meetings #1 and #2 before discussion at meeting #3. Each jurisdiction was instructed to provide information regarding the "Action Status" with one of the following status choices:

- 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

During meeting #3, discussion of action modification occurred in order to make actions SMART: specific, measurable, achievable, relevant, and time-bound. SMCOG staff provided some recommended altered language for some items and general discussion. MPC members were also encouraged to identify repetitive loss locations or infrastructure where the potential cost of a project may be high, but over time would cost less than frequent repairs and public assistance claims.

Additionally, the future inclusion of each mitigation action in the plan update was identified as either keep, delete, or modify. Based on the status updates, there were 10 completed actions, 188 continuing actions (either ongoing or modified), and 33 deleted actions. **Table 4.1** provides a full summary.

Table 4.1. Action Status Summary

Jurisdiction	Completed Actions	Continuing Actions (ongoing or modified)	Deleted Actions
Taney County	0	22	1
City of Branson	1	24	0
City of Forsyth	0	25	1
City of Hollister	0	18	8
City of Merriam Woods	0	23	3
City of Rockaway Beach	0	11	9
Village of Bull Creek	1	16	5
Branson R-IV School District	2	5	1
Forsyth R-III School District	2	7	0
Hollister R-V School District	0	7	1
Kirbyville R-VI School District	2	7	0
Taneyville R-II School District	2	5	2
Taney County Region Sewer District	0	10	0
Western Taney County Fire Protection District	0	8	2

Table 4.2 provides a summary of the completed and deleted actions from the previous plan.

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

Completed Actions	Action Description	Completion Details (date, amount, funding source)
Branson 1.7	NOAA Radio Purchase - Purchase and install NOAA weather radios in schools, government buildings, parks, etc.	n/a
Bull Creek 1.7	NOAA Radio Purchase - Purchase and install NOAA weather radios in schools, government buildings, parks, etc.	n/a
Branson Schools 1.7	NOAA Radio Purchase - Purchase and install NOAA weather radios in schools, government buildings, parks, etc.	n/a

Branson Schools 1.8	Mobile Hazard Alert - Promote local severe weather alert applications for mobile communications devices	n/a
Forsyth Schools 1.7	NOAA Radio Purchase – purchase and install NOAA weather radios in schools, government buildings, parks, etc.	Radios have bene purchased and paced in all building offices
Forsyth Schools 1.8	Mobile Hazard Alert – promote local severe weather alert applications for mobile communications devices	District admin has mobile communication to help ensure that district is aware of alerts
Kirbyville Schools 1.10	New Safe Rooms - Promote construction of safe rooms in new schools, daycares, and nursing homes	n/a
Kirbyville Schools 1.11	Safe Place Awareness - Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.	n/a
Taneyville Schools	NOAA Radio Purchase - Purchase and install NOAA weather radios in schools, government buildings, parks, etc.	NOAA Radios have been purchased and installed in all relevant locations.
Taneyville Schools	Mobile Hazard Alert - Promote local severe weather alert applications for mobile communications devices	Majority now have severe weather alert applications on mobile devices.
Deleted Action	Action Description	Reason for Deletion
Forsyth 3.4	Water Rescue - Enhance water rescue capabilities.	Replaced with new water rescue action
Hollister 1.7	NOAA Radio Purchase - Purchase and install NOAA weather radios in schools, government buildings, parks, etc.	n/a
Hollister 1.13	Heating and Cooling Centers - Organize outreach to at-risk populations, including establishing and promoting accessible heating and cooling centers in the community	n/a
Hollister 2.4	Dam Emergency Partnership - Partner with and participate in dam emergency planning and exercises.	n/a
Hollister 2.6	Runoff Ordinance Enforcement - Enforce measures to control runoff from developing areas outside the floodplain where ordinances have not been enacted.	n/a
Hollister 2.8	Waterway Maintenance - Work with regulatory agencies to obtain appropriate permits to maintain waterways in order to reduce the impact of flooding.	n/a
Hollister 3.3	Water Inventory - Inventory alternative firefighting water sources.	n/a
Hollister 3.4	Water Rescue - Enhance water rescue capabilities.	n/a
GIS Development - Continue development of Geographic Information Systems (GIS) to further identify, analyze, and map hazard prone areas to enhance decision making and facilities management.		n/a
Merriam Woods 1.7	NOAA Radio Purchase - Purchase and install NOAA weather radios in schools, government buildings, parks, etc.	Do not know if needed yet

Merriam Woods 1.8	Citizen NOAA Radios - Promote the use of NOAA weather radios by all residents and businesses.	Not many businesses here
Merriam Woods 1.13	Heating and Cooling Centers - Organize outreach to at-risk populations, including establishing and promoting accessible heating and cooling centers in the community	Very small community
Rockaway Beach 1.6	Siren Radio Control – Improve effectiveness of outdoor warning sirens by making all existing sirens radio activated	n/a
Rockaway Beach 1.13	Heating and Cooling Centers - Organize outreach to at-risk populations, including establishing and promoting accessible heating and cooling centers in the community	n/a
Rockaway Beach 2.6	Runoff Ordinance Enforcement - Enforce measures to control runoff from developing areas outside the floodplain where ordinances have not been enacted.	n/a
Rockaway Beach 3.1	NIMS Training - Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.	n/a
Rockaway Beach 3.5	Debris Disposal - Identify debris disposal and burning locations in community to facilitate recovery from large scale hazard events.	n/a
Rockaway Beach 3.7	Hazard Mitigation in Plans - Integrate hazard mitigation into comprehensive plans and storm water management policies.	n/a
Rockaway Beach 3.8	Funding Identification - Continue to monitor and identify funding from state and federal programs for hazard mitigation activities.	n/a
Rockaway Beach 3.9	Infrastructure Coordination - Continue coordination to promote infrastructure development practices that reduce damage from flooding.	n/a
Rockaway Beach 3.10	GIS Development - Continue development of Geographic Information Systems (GIS) to further identify, analyze, and map hazard prone areas to enhance decision making and facilities management.	n/a
Bull Creek 1.2	Fire-Resistant Construction - Encourage the use of non-combustible materials for new construction, and fire-resistant landscaping techniques and planting materials in wildfire hazard areas	n/a
Bull Creek 1.8	Citizen NOAA Radios - Promote the use of NOAA weather radios by all residents and businesses.	n/a
Bull Creek 2.4	Dam Emergency Partnership - Partner with and participate in dam emergency planning and exercises.	n/a
Bull Creek 2.5	Update Codes - Adopt updated international codes and land use development policies, where applicable	n/a
Bull Creek 2.6	Runoff Ordinance Enforcement - Enforce measures to control runoff from developing areas outside the floodplain where ordinances have not been enacted.	n/a

Bull Creek 1.2	Fire-Resistant Construction – encourage the use of non-combustible materials for new construction, and fire-resistant landscaping techniques and planting materials in wildfire hazard areas	n/a
Bull Creek 1.8	Citizen NOAA Radios – promote the use of NOAA weather radios by all residents and businesses	n/a
Bull Creek 2.4	Dam Emergency Partnership – partner with and participate in dam emergency planning and exercises	n/a
Bull Creek 2.5	Update Codes – adopt updated international codes and land use development policies, where applicable	Nothing to update
Bull Creek 2.6	Runoff Ordinance Enforcement – enforce measures to control runoff from developing areas outside the floodplain where ordinances have not been exacted	n/a
Branson Schools 2.4	Dam Emergency Partnership - Partner with and participate in dam emergency planning and exercises.	n/a
Hollister Schools 2.4	Dam Emergency Partnership - Partner with and participate in dam emergency planning and exercises.	Not aware
Taneyville Schools 1.10	New Safe Rooms - Promote construction of safe rooms in new schools, daycares, and nursing homes	This takes additional funding that has not been available.
Taneyville Schools 2.4	Dam Emergency Partnership - Partner with and participate in dam emergency planning and exercises.	This is not relevant to the Taneyville community or school.
Western Taney Fire Protection District 3.5	Debris Disposal – identify debris disposal and burning locations in community to facilitate recovery from large scale hazard events	n/a
Western Taney Fire Protection District 3.10	GIS Development – continue development of geographic information systems (GIS) to further identify, analyze, and map hazard prone areas to enhance decision making and facilities management	n/a

Source: Previously approved County Hazard Mitigation Plan; Data Collection Questionnaires.

Many jurisdictions found that actions were still relevant and would be ongoing. Some of the continuing actions were re-worded for the update and are noted as "revised, continuing" on the action sheets.

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 or within their organization to finalize the actions to be submitted for the updated mitigation strategy. 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 for grant funding applications. 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 the projects. 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?

Will the implemented action result in lives saved?

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

The final scores are listed below in the analysis of each action. The worksheets are attached to this plan as Appendix B. The STAPLEE final score for each action, absent other considerations, such as a localized need for a project, determined the priority. Low priority action items were those that had a total score of between 0 and 24. Moderate priority actions were those scoring between 25 and 29. High priority actions scored 30 or above. A blank STAPLEE worksheet is shown in **Figure 4.1**. Actions that scored in the low priority were omitted from the plan in order to allow the local jurisdictions to focus on higher priority items.

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	•
STAF	PLEE Criteria	
Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		Score
S: Is it Socially Acceptable		
T: Is it Technically feasible and potenti	ally successful?	
A: Does the jurisdiction have the Admi	nistrative capacity to execute this action?	
P: Is it Politically acceptable?		
L: Is there Legal authority to implemen	t?	
E: Is it Economically beneficial?		
E: Will the project have either a neutral or positive impact on the natural Environment?		
Will historic structures be saved or protected?		
Could it be implemented quickly?		
STAPLEE SCORE		
Mitigation Effectiveness Criteria	Evaluation Rating	Score
Will the implemented action result in lives saved?	Assign from 5-10 points based on the likelihood that lives will be saved.	
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative 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)		

In addition to the STAPLEE cost benefit review prioritization, an implementation plan for each action was discussed. An action worksheet was used to develop the implementation plan. The action worksheet format is shown in **Figure 4.2.**

Figure 4.2. ACTION WORKSHEET

Action Worksheet	
Name of Jurisdiction:	
Risk / Vulnerability	
Hazard(s) Addressed:	List the hazard or hazards that will be addressed by this action
Problem being Mitigated:	Provide a brief description of the problem that the action will address. Utilize the problem statement developed in the risk assessment.
	Action or Project
Applicable Goal Statement:	Choose the goal statement that applies to this action
Action/Project Number:	Insert a unique action number for this action for future tracking purposes. This can be a combination of the jurisdiction name, followed by the goal number and action number (i.e. Joplin1.1)
Name of Action or Project:	
Mitigation Category:	Prevention; Structure and Infrastructure Projects; Natural Systems Protection; Education and Outreach; Emergency Services
Action or Project Description:	Describe the action or project.
Estimated Cost:	Provide an estimate of the cost to implement this action. This can be accomplished with a range of estimated costs.
Benefits:	Provide a narrative describing the losses that will be avoided by implementing this action. If dollar amounts of avoided losses are known, include them as well.
	Plan for Implementation
Responsible Organization/Department:	Which organization will be responsible for tracking this action? Be specific to include the specific department or position within a department.
Supporting Organization/Department:	Which organization/department will assist in implementation of this action?
Action/Project Priority:	Include the STAPLEE score and Priority (H, M, L)
Timeline for Completion:	How many months/years to complete.
Potential Fund Sources:	List specific funding sources that may be used to pay for the implementation of the action.
Local Planning Mechanisms to be Used in Implementation, if any:	
	Progress Report
Action Status:	Indicate status as New, Continuing Not Started, or Continuing in Progress)
Report of Progress:	For Continuing actions only, indicate the report on progress. If the action is not started, indicate any barriers encountered to initiate the action. If the action is in progress, indicate the activity that has occurred to date.

Goal 1: Protect the lives and livelihoods of all citizens.

Action Worksheet		
Name of Jurisdiction:	Taney County	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Enhancing public awareness of hazard vulnerability and mitigation measures	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Taney County 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	N/A: absorbed by existing staff costs	
Benefits:	Reduction of loss of life, injury, and property during hazard events.	
	Plan for Implementation	
Responsible Organization/Department:	Taney County Emergency Management	
Supporting Organization/Department:	Municipal emergency management agencies and emergency services.	
Action/Project Priority:	High; 38	
Timeline for Completion:	Ongoing	
Potential Fund Sources:	General County Funds/municipal funds/ emergency service funds	
Local Planning Mechanisms to be Used in Implementation, if any:	Hazard Mitigation Plan	
	Progress Report	
Action Status:	Revised, continuing	
Report of Progress:	Provide media interviews, make social media posts concerning all methods of hazard mitigation. Participate in FEMA and NWS months/weeks dedicated to preparedness, awareness, and mitigation.	

Action Worksheet		
Name of Jurisdiction:	Taney County	
Risk / Vulnerability		
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Lack of public involvement in mitigation activities.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Taney County 1.2	
Name of Action or Project:	Citizen Preparedness	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote participation in citizen preparedness activities, such as: Citizen Corps, CERT, Neighborhood Watch, Fire Corps, Amateur Radio, etc.	
Estimated Cost:	N/A: absorbed by existing staff costs	
Benefits:	Increases citizen awareness of mitigation activities	
	Plan for Implementation	
Responsible Organization/Department:	Taney County Emergency Management	
Supporting Organization/Department:	Municipal Emergency Management Organizations; other political subdivisions	
Action/Project Priority:	High; 33	
Timeline for Completion:	Continuous	
Potential Fund Sources:	General County Funds	
Local Planning Mechanisms to be Used in Implementation, if any:		
	Progress Report	
Action Status:	Continuing- In Progress	
Report of Progress:	Provide public information on programs and courses available as they are published.	

Action Worksheet			
Name of Jurisdiction:	Taney County		
	Risk / Vulnerability		
Hazard(s) Addressed:	Tornado, Severe Storms, Flooding, Severe Winter Weather		
Problem being Mitigated:	Lack of communication and awareness during hazard events		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	Taney County 1.3		
Name of Action or Project:	NOAA Radio Purchase		
Mitigation Category:	Education and Outreach, Emergency Services		
Action or Project Description:	Purchase and install NOAA weather radios in schools, government buildings, parks, etc. Review and recommend – Weather Ready Community Program		
Estimated Cost:	\$30/radio		
Benefits:	Improves communication and awareness during hazard events.		
	Plan for Implementation		
Responsible Organization/Department:	Taney County Emergency Management		
Supporting Organization/Department:			
Action/Project Priority:	High; 30		
Timeline for Completion:	Completed-Ongoing		
Potential Fund Sources:	Individual County Office Budgets		
Local Planning Mechanisms to be Used in Implementation, if any:			
Progress Report			
Action Status:	Completed, but continuing		
Report of Progress:	County offices have purchased and installed radios. Ongoing efforts to ensure the radios remain in service as they age and stress the importance to new elected officials.		

Action Worksheet			
Name of Jurisdiction:	Taney County		
	Risk / Vulnerability		
Hazard(s) Addressed:	Tornado, severe storm, flood, winter weather		
Problem being Mitigated:	Lack of communication during hazard events		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	Taney County 1.4		
Name of Action or Project:	Citizen NOAA Radios		
Mitigation Category:	Education and Outreach		
Action or Project Description:	Promote the use of NOAA weather radios by all residents and businesses. Continue finding grant funding for place new weather radios and replacements.		
Estimated Cost:	Existing staff costs + \$1000 advertising		
Benefits:	Improves communication during weather events		
	Plan for Implementation		
Responsible Organization/Department:	Taney County Emergency Management		
Supporting Organization/Department:			
Action/Project Priority:	High; 37		
Timeline for Completion:	Continuous		
Potential Fund Sources:	Grant sources, senior tax fund		
Local Planning Mechanisms to be Used in Implementation, if any:			
Progress Report			
Action Status:	Continuing, in progress		
Report of Progress:	Radios are promoted during spring and fall. Targeted messaging goes to senior groups, past disaster survivors, and low income. Radios have been funded in the past through disaster recovery funds and senior tax funds.		

Action Worksheet		
Name of Jurisdiction:	Taney County	
Risk / Vulnerability		
Hazard(s) Addressed:	Tornado, severe storms, flood, winter weather, drought, heat	
Problem being Mitigated:	Lack of communication during hazard events	
Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Taney County 1.5	
Name of Action or Project:	Mobile Hazard Alert	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote local severe weather alert applications for mobile communications devices.	
Estimated Cost:	Existing staff costs + \$1000 advertising	
Benefits:	Improves communications during hazard events	
	Plan for Implementation	
Responsible Organization/Department:	Taney County Emergency Management	
Supporting Organization/Department:		
Action/Project Priority:	High; 36	
Timeline for Completion:	Continuous	
Potential Fund Sources:	County funds	
Local Planning Mechanisms to be Used in Implementation, if any:	EOP- Support Annex A: Alert & Warning	
	Progress Report	
Action Status:	Continuing in progress	
Report of Progress:	Multiple times per year coinciding with FEMA National Preparedness Month and NWS Weather Awareness Days/Weeks as well as times with forecast severe weather provide information on available apps during presentations, interviews & social media.	

Action Worksheet			
Name of Jurisdiction:	Taney County		
	Risk / Vulnerability		
Hazard(s) Addressed:	Tornado, Severe Storms		
Problem being Mitigated:	Exposure of vulnerable populations to hazards		
Action or Project			
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	Taney County 1.6		
Name of Action or Project:	New Safe Rooms		
Mitigation Category:	Structure and Infrastructure Projects		
Action or Project Description:	Promote construction of safe rooms in new schools, daycares, nursing homes, and appropriate government buildings		
Estimated Cost:	\$1 million +		
Benefits:	Provides protection from severe weather and tornados for vulnerable populations.		
	Plan for Implementation		
Responsible Organization/Department:	Taney County Emergency Management		
Supporting Organization/Department:			
Action/Project Priority:	High; 30		
Timeline for Completion:	5 years		
Potential Fund Sources:	FEMA HMGP		
Local Planning Mechanisms to be Used in Implementation, if any:	Hazard Mitigation Plan		
Progress Report			
Action Status:	Continuing		
Report of Progress:	Consistent discussions with interested agencies/jurisdictions. Encouragement to participate in the Hazard Mitigation Planning Process. Pursuit of funding is a roadblock in enacting projects.		

Action Worksheet	
Name of Jurisdiction:	Taney County
	Risk / Vulnerability
Hazard(s) Addressed:	Tornado, Severe Storm
Problem being Mitigated:	Exposure of the public to hazard events
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Taney County 1.7
Name of Action or Project:	Safe Place Awareness
Mitigation Category:	Education and Outreach
Action or Project Description:	Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.
Estimated Cost:	N/A
Benefits:	Improves public safety during hazard events
	Plan for Implementation
Responsible Organization/Department:	Taney County Emergency Management
Supporting Organization/Department:	
Action/Project Priority:	High; 38
Timeline for Completion:	Continuous
Potential Fund Sources:	n/a
Local Planning Mechanisms to be Used in Implementation, if any:	Taney County EOP
	Progress Report
Action Status:	Continuing, in progress
Report of Progress:	Annual review of EOP. Meet with businesses/facilities upon request to provide guidance on selecting safe spaces.

Action Worksheet			
Name of Jurisdiction:	Taney County		
	Risk / Vulnerability		
Hazard(s) Addressed:	Tornado, Severe Storm		
Problem being Mitigated:	Lack of safe rooms		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	Taney County 1.8		
Name of Action or Project:	Safe Room Education		
Mitigation Category:	Education and Outreach		
Action or Project Description:	Promote and distribute FEMA publication 320 which provides information on construction plans and cost estimates for building safe rooms in homes or small businesses, and cost estimates for construction		
Estimated Cost:	Existing staff costs + \$1000 advertising		
Benefits:	Improves education on safe room construction		
	Plan for Implementation		
Responsible Organization/Department:	Taney County Emergency Management		
Supporting Organization/Department:			
Action/Project Priority:	High; 35		
Timeline for Completion:	Continuous		
Potential Fund Sources:	County Funds, FEMA publication		
Local Planning Mechanisms to be Used in Implementation, if any:	N/a		
	Progress Report		
Action Status:	Continuing In Progress		
Report of Progress:	Keep a cache of FEMA 320 publications available and distribute upon request for the document or after discussions with the public on safe room installation in homes.		

Action Worksheet	
Name of Jurisdiction:	Taney County
	Risk / Vulnerability
Hazard(s) Addressed:	Extreme Temperatures
Problem being Mitigated:	Exposure of vulnerable populations to extreme temperatures
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Taney County 1.9
Name of Action or Project:	Heating and Cooling Centers
Mitigation Category:	Education and Outreach
Action or Project Description:	coordinate outreach to at-risk populations, including establishing and promoting accessible heating and cooling centers in the community.
Estimated Cost:	n/a
Benefits:	Protects vulnerable populations from extreme temperatures
	Plan for Implementation
Responsible Organization/Department:	Local non-profits
Supporting Organization/Department:	Taney County Emergency Management
Action/Project Priority:	Medium; 27
Timeline for Completion:	Continuous
Potential Fund Sources:	Donations, non-profit funds, grants
Local Planning Mechanisms to be Used in Implementation, if any:	n/a
	Progress Report
Action Status:	Continuing, in progress
Report of Progress:	Work with local non-profits to encourage, support and spread information on heating and cooling center locations

Action Worksheet		
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornados and Severe Thunderstorms producing life-threatening winds greater than 70 mph.	
Problem being Mitigated:	There are currently no FEMA Rated Safe Rooms located in the Branson community.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Branson 1.1	
Name of Action or Project:	Safe room construction	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	construct a safe room at the new fire station	
Estimated Cost:	Construction costs are estimated at \$350 per square foot with total costs based on size and occupant load.	
Benefits:	Provides a safe location for residents to seek shelter during severe weather.	
	Plan for Implementation	
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division	
Supporting Organization/Department:	Taney County Emergency Management	
Action/Project Priority:	28 – Medium Priority	
Timeline for Completion:	New Project – Construction in 2023	
Potential Fund Sources:	FEMA	
Local Planning Mechanisms to be Used in Implementation, if any:	City Strategic Plan	
Progress Report		
Action Status:	New Project	
Report of Progress:	Architectural design work in started May of 2022 for the new fire station	

Action Worksheet		
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Use of these mediums are designed to address a Community Risk Reduction, All Hazards approach. Special attention to flooding, severe weather, and winter weather.	
Problem being Mitigated:	As mentioned above, an All-Hazards approach is used for community education efforts.	
Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Branson 1.2	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	Up to \$1,000 annually.	
Benefits:	Provides annual education programs for the community to promote preparedness for all-hazards.	
	Plan for Implementation	
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division	
Supporting Organization/Department:	Taney County Emergency Management	
Action/Project Priority:	34 – High Priority	
Timeline for Completion:	How many months/years to complete. An estimated range is acceptable (2-4 months, 1-2 years, etc.)	
Potential Fund Sources:	FD Budget, In-Kind PSA's	
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP, Taney County Hazard Mitigation Plan, and annual media plan utilized to provide messages to the community via various mediums.	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	These mediums have been used throughout the year (annually) to promote community risk reduction (specifically for the hazards identified in the Hazard Mitigation Plan) and supports our NWS Storm Ready Community designation.	

Action Worksheet		
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	The hazard addressed focuses on residential and commercial structure fires.	
Problem being Mitigated:	The problem mitigated is the potential damage to structures and contents. It also reduces the risk of fire related injuries or deaths.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Branson 1.3	
Name of Action or Project:	Fire-Resistant Construction	
Mitigation Category:	Prevention, Education and Outreach	
Action or Project Description:	Encourage the use of non-combustible materials for new construction, and fire-resistant landscaping techniques and planting materials in wildfire hazard areas.	
Estimated Cost:	\$1,000 annually	
Benefits:	Reduces the risk of potential damage to structures and contents. It also reduces the risk of fire related injuries or deaths.	
	Plan for Implementation	
Responsible Organization/Department:	Branson Fire Rescue	
Supporting Organization/Department:	Branson Planning Department	
Action/Project Priority:	29 – Medium Priority	
Timeline for Completion:	Continuing Program	
Potential Fund Sources:	City Budget	
Local Planning Mechanisms to be Used in Implementation, if any:	City of Branson Strategic Plan	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	The city has the 2018 ICC model codes adopted including local amendments and NFPA standards. Local amendments provide a focus on fire sprinklers and automatic fire alarms with requirements for monitoring for early detection and notification.	

Action Worksheet	
Name of Jurisdiction:	City of Branson
	Risk / Vulnerability
Hazard(s) Addressed:	Program focuses on an All-Hazards approach for Community Preparedness.
Problem being Mitigated:	Citizens not being prepared and thus relying heavily of emergency services.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Branson 1.4
Name of Action or Project:	Citizen Preparedness
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote participation in citizen preparedness activities, such as: Citizen Corps, CERT, Neighborhood Watch, Fire Corps, Amateur Radio, etc.
Estimated Cost:	\$2,500 annually
Benefits:	Provides All-Hazards training programs for citizens.
	Plan for Implementation
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division.
Supporting Organization/Department:	Taney County Emergency Management
Action/Project Priority:	26 – Medium Priority
Timeline for Completion:	Continuing in Progress
Potential Fund Sources:	City Budget and EMPG Funding
Local Planning Mechanisms to be Used in Implementation, if any:	Hazard Mitigation Plan, LEOP, City Strategic Plan, FD Goals and Objectives
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	CERT Training provided annually, CERT Trailer maintained, Support local Amateur Radio club.

	Action Worksheet	
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms producing Life-Threatening Winds, Tornados and other applicable hazards for OWS Use	
Problem being Mitigated:	Program replaces dated OWS units and purchases new for areas in the community lacking coverage.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Branson 1.5	
Name of Action or Project:	Siren Maintenance	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Maintain outdoor warning sirens in public areas	
Estimated Cost:	\$75,000 annually	
Benefits:	Provides a mechanism for early warning to citizens outdoors in the community.	
	Plan for Implementation	
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division	
Supporting Organization/Department:	None	
Action/Project Priority:	33 – High Priority	
Timeline for Completion:	Continuing in Progress	
Potential Fund Sources:	FD Budget and EMPG Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	City strategic plan and FD goals and objectives	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Six OWS units have been replaced with two of those relocated for improved coverage.	

Action Worksheet	
Name of Jurisdiction:	City of Branson
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Weather, Tornadoes, Winter Weather & Flooding, for example.
Problem being Mitigated:	NOAA Weather radios are a resource to provide early warning for various weather events and civil emergencies.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Branson 1.6
Name of Action or Project:	Citizen NOAA Radios
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote the use of NOAA weather radios by all residents and businesses.
Estimated Cost:	None
Benefits:	Provides early warning and information to citizens
	Plan for Implementation
Responsible Organization/Department:	City of Branson – Emergency Management Division
Supporting Organization/Department:	Taney County Emergency Management & National Weather Service
Action/Project Priority:	32 – High Priority
Timeline for Completion:	Continuing in Progress
Potential Fund Sources:	Citizen Self-Purchase, Taney County Senior Citizen Grant, Donations
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP, FD Goals and Objectives
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	NOAA Weather Stations are in all schools, public buildings, EOC, and have been provided to Seniors over the course of the HMP through the Taney County Senior Services Grant.

	Action Worksheet	
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards and other Emergency Communications to the Public	
Problem being Mitigated:	Provides a communications link to citizens and area businesses.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Branson 1.7	
Name of Action or Project:	Mobile Hazard Alert	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote local severe weather alert applications for mobile communications devices.	
Estimated Cost:	\$12,000 annually	
Benefits:	Provides emergency communications to citizens and area businesses via cell, text, landline and e-mail resources. Specifically, severe weather warnings.	
	Plan for Implementation	
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division	
Supporting Organization/Department:	None	
Action/Project Priority:	32 – High Priority	
Timeline for Completion:	Continuing in Progress	
Potential Fund Sources:	City Budget	
Local Planning Mechanisms to be Used in Implementation, if any:	FD Budget	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	System has been used to provide emergency weather warnings and other all-hazards risk messages to the community.	

	Action Worksheet		
Name of Jurisdiction:	City of Branson		
	Risk / Vulnerability		
Hazard(s) Addressed:	Severe thunderstorms producing life threatening winds and tornados		
Problem being Mitigated:	Provide shelter locations during severe thunderstorms and tornados.		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	City of Branson 1.8		
Name of Action or Project:	New Safe Rooms		
Mitigation Category:	Structure and Infrastructure Projects		
Action or Project Description:	Promote construction of safe rooms in new schools, daycares, nursing homes, and appropriate government buildings		
Estimated Cost:	Based on construction size		
Benefits:	Storm shelter locations may reduce the risk of injury or death during a severe weather event.		
	Plan for Implementation		
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division		
Supporting Organization/Department:	None		
Action/Project Priority:	23- Low Priority		
Timeline for Completion:	Continuing in Progress		
Potential Fund Sources:	FEMA Grants		
Local Planning Mechanisms to be Used in Implementation, if any:	TC Hazard Mitigation Plan, City Strategic Plan		
Progress Report			
Action Status:	Continuing in Progress		
Report of Progress:	None		

	Action Worksheet		
Name of Jurisdiction:	City of Branson		
	Risk / Vulnerability		
Hazard(s) Addressed:	Severe Thunderstorms and Tornados		
Problem being Mitigated:	Identify safe place locations for the citizens.		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	City of Branson 1.9		
Name of Action or Project:	Safe Place Awareness		
Mitigation Category:	Education and Outreach		
Action or Project Description:	Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.		
Estimated Cost:	Undetermined		
Benefits:	Reduces the risk of personal injury or death during severe weather.		
	Plan for Implementation		
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division		
Supporting Organization/Department:	Taney County Emergency Management		
Action/Project Priority:	29 – Medium Priority		
Timeline for Completion:	Continuing in Progress		
Potential Fund Sources:	City Budget for Education		
Local Planning Mechanisms to be Used in Implementation, if any:	City Strategic Plan and FD Goals & Objectives		
Progress Report			
Action Status:	Continuing in Progress		
Report of Progress:	Education programs are provided throughout the year built into our Community Risk Reduction programs, web site, media releases and social media.		

Action Worksheet		
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Severe thunderstorms and tornados	
Problem being Mitigated:	Risk of personal injury or death during severe weather events.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Branson 1.10	
Name of Action or Project:	Safe Room Education	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and distribute FEMA publication 320 which provides information on construction plans and cost estimates for building safe rooms in homes or small businesses, and cost estimates for construction	
Estimated Cost:	None	
Benefits:	Work towards safe room shelter locations across the community.	
	Plan for Implementation	
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division.	
Supporting Organization/Department:	Branson Planning Department	
Action/Project Priority:	28 – Medium Priority	
Timeline for Completion:	Continuing in Progress	
Potential Fund Sources:	FEMA Grants	
Local Planning Mechanisms to be Used in Implementation, if any:	City Strategic Plan	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	No FEMA Rated Safe Rooms have been built in the past five years. Education materials have been provided.	

	Action Worksheet		
Name of Jurisdiction:	City of Branson		
	Risk / Vulnerability		
Hazard(s) Addressed:	Shelter locations during extreme heat and cold events		
Problem being Mitigated:	Reduce risk of effects of extreme heat and cold exposure to at-risk community members.		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	City of Branson 1.11		
Name of Action or Project:	Heating and Cooling Centers		
Mitigation Category:	Education and Outreach		
Action or Project Description:	coordinate outreach to at-risk populations, including establishing and promoting accessible heating and cooling centers in the community.		
Estimated Cost:	\$1,200 annually		
Benefits:	Provide identified (pre-planned) shelter locations for at-risk community members during extreme temperature events.		
	Plan for Implementation		
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division		
Supporting Organization/Department:	Branson Parks Department		
Action/Project Priority:	22 – Low Priority		
Timeline for Completion:	Continuing in Progress		
Potential Fund Sources:	City Budget		
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP, City Strategic Plan		
	Progress Report		
Action Status:	Continuing in Progress		
Report of Progress:	City Parks Rec-Plex Building and Community Center opened during extreme temperatures. Emergency Shelter operated by a NFP organization used for extreme cold events. Public education for preparedness and locations to go provided via local media and social media outlets.		

Action Worksheet	
Name of Jurisdiction:	City of Forsyth
	Risk / Vulnerability
Hazard(s) Addressed:	All
Problem being Mitigated:	Provide communication to the public concerns local hazards.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Forsyth 1.1
Name of Action or Project:	Awareness Program
Mitigation Category:	Education and Outreach
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities
Estimated Cost:	\$100-200
Benefits:	Reducing confusion and lack of information in the time of a disaster.
	Plan for Implementation
Responsible Organization/Department:	Forsyth Fire Department /EMD – Fire Chief/Emergency Management
Supporting Organization/Department:	Forsyth Fire Department /EMD and City of Forsyth.
Action/Project Priority:	35
Timeline for Completion:	2-4 Months
Potential Fund Sources:	Local Tax Funds
Local Planning Mechanisms to be Used in Implementation, if any:	Emergency Operations Plan
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	City of Forsyth has been able to use methods through general utility accounting software as well as contracting for Nixle notification system as means of community notification in a non-emergency state.

Action Worksheet		
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	drought, extreme temperature, severe wildfire	
Problem being Mitigated:	Lack of Education on the potential Wildland Fire in the Urban setting.	
Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Forsyth 1.2	
Name of Action or Project:	Fire-Resistant Construction	
Mitigation Category:	Prevention, Education and Outreach	
Action or Project Description:	Encourage the use of non-combustible materials for new construction, and fire-resistant landscaping techniques and planting materials in wildfire hazard areas.	
Estimated Cost:	\$100-\$200	
Benefits:	By Educating the Community the less likely that a Major Wild Land Fire will happen.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department-Fire Chief	
Supporting Organization/Department:	Forsyth Building Department	
Action/Project Priority:	33	
Timeline for Completion:	1-2 Years	
Potential Fund Sources:	MDC and Local Funding	
Local Planning Mechanisms to be Used in Implementation, if any:	Utilizing MDC Wildfire Preparedness Plan for Wildland	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	We have held Open Houses in the past to bring information to the community, additional opens houses are needed and go to 2 nd phase of the program by bring in stakeholders from the Community.	

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	all	
Problem being Mitigated:	A gap filler for Emergency personal and preparing our community to be resilient.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Forsyth 1.3	
Name of Action or Project:	Citizen Preparedness	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote participation in citizen preparedness activities, such as: Citizen Corps, CERT, Neighborhood Watch, Fire Corps, Amateur Radio, etc.	
Estimated Cost:	\$1000	
Benefits:	The potential reducing Property Damage as well as Saving Lives. Reducing the concern of the common Citizen of not being prepared and self-stainable.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department /Emergency Management	
Supporting Organization/Department:	Partners like 4H	
Action/Project Priority:	37	
Timeline for Completion:	1-2 Years	
Potential Fund Sources:	FEMA Grants; Local Tax Revenue, Grants from 4H	
Local Planning Mechanisms to be Used in Implementation, if any:	Utilizing a partner with 4H and MYPI program.	
	Progress Report	
Action Status:	New	
Report of Progress:	Limited Staff and Funding, gain interest from the Youth to support the program.	

	Action Worksheet
Name of Jurisdiction:	City of Forsyth
	Risk / Vulnerability
Hazard(s) Addressed:	all
Problem being Mitigated:	Provide Warning to Seek Information and Seek Shelter
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Forsyth 1.4
Name of Action or Project:	Siren Maintenance
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	Maintain outdoor warning sirens in public areas
Estimated Cost:	\$5000
Benefits:	By providing Warning of the potential Severe Weather, it will reduce Injury's, Deaths and even property damage.
	Plan for Implementation
Responsible Organization/Department:	Forsyth Fire Department/EMD –Fire Chief
Supporting Organization/Department:	Local Contractors for Maintenance Support and Programming up keeping.
Action/Project Priority:	42
Timeline for Completion:	2-4 Months
Potential Fund Sources:	Local Tax Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	Budget Process
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Acton is completed and ongoing supported

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	all	
Problem being Mitigated:	Provide Warning and notification of All Hazards Events	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Forsyth 1.5	
Name of Action or Project:	NOAA Radio Purchase	
Mitigation Category:	Education and Outreach, Emergency Services	
Action or Project Description:	Purchase and install NOAA weather radios in schools, government buildings, parks, etc. Review and recommend – Weather Ready Community Program	
Estimated Cost:	From \$30.00 a radio to \$90,000 to cover the population of the City of Forsyth	
Benefits:	Providing the gap that some community members might have due to not having access a smart phone, radio, TV.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department –EMD –Fire Chief	
Supporting Organization/Department:	City of Forsyth	
Action/Project Priority:	34	
Timeline for Completion:	1-2 Years	
Potential Fund Sources:	FEMA Grants, Senior Tax Revenue and Local Tax Revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	Utilizing Forsyth Severe Weather plan and Budgeting and Grant resources to proving Weather Radios.	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	We have provided over 500 Weather Radios in prior programs until radio funding ran out. Continue with Funding mechanisms to provide additional Weather Radios to the specific group in the area.	

Action Worksheet	
Name of Jurisdiction:	City of Forsyth
	Risk / Vulnerability
Hazard(s) Addressed:	all
Problem being Mitigated:	Provide Warning and notification of All Hazards Events
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Forsyth 1.6
Name of Action or Project:	Citizen NOAA Radios
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote the use of NOAA weather radios by all residents and businesses. Continue finding grant funding for place new weather radios and replacements.
Estimated Cost:	From \$30.00 a radio to \$90,000 to cover the population of the City of Forsyth
Benefits:	Providing the gap that some community members might have due to not having access a smart phone, radio, TV.
	Plan for Implementation
Responsible Organization/Department:	Forsyth Fire Department –EMD –Fire Chief
Supporting Organization/Department:	City of Forsyth
Action/Project Priority:	31
Timeline for Completion:	1-2 Years
Potential Fund Sources:	FEMA Grants, Senior Tax Revenue and Local Tax Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	Utilizing Forsyth Severe Weather plan and Budgeting and Grant resources to proving Weather Radios.
	Progress Report
Action Status:	Continuing in Progress
Report of Progress:	We have provided over 500 Weather Radios in prior programs until radio funding ran out. Continue with Funding mechanisms to provide additional Weather Radios to the specific group in the area.

Action Worksheet		
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	all	
Problem being Mitigated:	No local paper or way of notifying the community of a disaster, warning or items such as a Water Break	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Forsyth 1.7	
Name of Action or Project:	Mobile Hazard Alert	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote local severe weather alert applications for mobile communications devices.	
Estimated Cost:	3000	
Benefits:	Providing and reducing the impact of a disaster, emergency or non- emergency event.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department/EMD –Fire Chief	
Supporting Organization/Department:	Utilities/Public Works –City Hall	
Action/Project Priority:	38	
Timeline for Completion:	2-4 months	
Potential Fund Sources:	Federal Funding and local Tax Revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	Notifying the community how to sign up and work out any issues with the program. Providing a SOP for alerts and notifications that should be sent.	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Nixle program has been implement and in place for year, continued community outreach for the program and proving signup help.	

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	severe weather	
Problem being Mitigated:	Current only large Safe room is located at the Forsyth School and geared for staff and students of the school and not the community.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Forsyth 1.8	
Name of Action or Project:	New Safe Rooms	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Promote construction of safe rooms in new schools, daycares, nursing homes, and appropriate government buildings	
Estimated Cost:	\$500,000	
Benefits:	Providing additional space for the community to go and seek shelter	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Dept/EMD –City of Forsyth.	
Supporting Organization/Department:	City of Forsyth, SEMA	
Action/Project Priority:	35	
Timeline for Completion:	1-2 Years	
Potential Fund Sources:	FEMA and local Tax Revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	comprehensive plan, capital improvement plan, emergency operations plan, budgeting process, etc.	
Progress Report		
Action Status:	Continuing Not Started,	
Report of Progress:	Lack of Funds	

	Action Worksheet
Name of Jurisdiction:	City of Forsyth
	Risk / Vulnerability
Hazard(s) Addressed:	all
Problem being Mitigated:	Lack of continued of updating plans and working with Community partners.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Forsyth 1.9
Name of Action or Project:	Safe Place Awareness
Mitigation Category:	Education and Outreach
Action or Project Description:	Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.
Estimated Cost:	\$100-\$500
Benefits:	By providing updated plans with changes that have been made with are Community and each agency having buy into the plan to create a plan that all agencies can and will use.
	Plan for Implementation
Responsible Organization/Department:	Forsyth Fire Department/EMD
Supporting Organization/Department:	Local Partners- Schools, Business
Action/Project Priority:	38
Timeline for Completion:	1-2 Years
Potential Fund Sources:	Local Tax Funding, FEMA funding
Local Planning Mechanisms to be Used in Implementation, if any:	School infrastructure plan, emergency operations plan, budgeting process.
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Participating in other Plan updates and exercises.

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	all	
Problem being Mitigated:	Lack of information to the community on how and what the importance of standard building and a hardened room.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Forsyth 1.10	
Name of Action or Project:	Safe Room Education	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and distribute FEMA publication 320 which provides information on construction plans and cost estimates for building safe rooms in homes or small businesses, and cost estimates for construction	
Estimated Cost:	100	
Benefits:	By providing the resource to the community and education to builders	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department /EMD-Fire Chief	
Supporting Organization/Department:	SEMA/FEMA, City of Forsyth, Forsyth Chamber, Forsyth Building Department	
Action/Project Priority:	33	
Timeline for Completion:	1-2 Years	
Potential Fund Sources:	FEMA Grants	
Local Planning Mechanisms to be Used in Implementation, if any:	Emergency operations plan	
	Progress Report	
Action Status:	Indicate status as New, Continuing Not Started, or Continuing in Progress	
Report of Progress:	If the action is New , indicate any potential barriers you might encounter while implementing it. If the action is Continuing Not Started , indicate why the action hasn't been implemented yet (lack of funds, limited staff availability, new administration, etc.). If the action is Continuing in Progress , indicate any progress that has been made over the past 5 years.	

Action Worksheet	
Name of Jurisdiction:	City of Forsyth
	Risk / Vulnerability
Hazard(s) Addressed:	Extreme Heat and Cold events
Problem being Mitigated:	Not designated locations for Extreme Heat and Cold that meets required facilities.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Forsyth 1.11
Name of Action or Project:	Heating and Cooling Centers
Mitigation Category:	Education and Outreach
Action or Project Description:	coordinate outreach to at-risk populations, including establishing and promoting accessible heating and cooling centers in the community.
Estimated Cost:	0-\$100
Benefits:	Working with outside agency's such as Red cross and other partner agencies to provide heating and cooling locations in the area.
	Plan for Implementation
Responsible Organization/Department:	Forsyth Fire Department /EMD –Fire Chief
Supporting Organization/Department:	Forsyth Fire Department /EMD –Fire Chief
Action/Project Priority:	33
Timeline for Completion:	1Year
Potential Fund Sources:	Local Partner Agency's Support, Local Tax revenue
Local Planning Mechanisms to be Used in Implementation, if any:	emergency operations plan, budgeting process.
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Continued and updating with the local agencies support

	Action Worksheet
Name of Jurisdiction:	City of Forsyth
	Risk / Vulnerability
Hazard(s) Addressed:	Severe Weather
Problem being Mitigated:	Lack of Additional space for severe weather shelter.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Forsyth 1.12
Name of Action or Project:	Safe room construction
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	construct a FEMA approved safe room at a new fire station or City Hall.
Estimated Cost:	
Benefits:	Additional Shelter for either staff/personnel and or community depending on size of shelter.
	Plan for Implementation
Responsible Organization/Department:	Forsyth Fire Department/EMD-Fire Chief
Supporting Organization/Department:	City of Forsyth
Action/Project Priority:	36
Timeline for Completion:	2-4 year
Potential Fund Sources:	FEMA grants, Local Tax Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive plan, capital improvement plan, emergency operations plan, budgeting process.
Progress Report	
Action Status:	New
Report of Progress:	Lack of Funding

Action Worksheet	
Name of Jurisdiction:	City of Forsyth
	Risk / Vulnerability
Hazard(s) Addressed:	Loss of power due to Severe Weather and Emergency events.
Problem being Mitigated:	Currently Critical Infrastructure has not power back up in the event of loss of power
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Forsyth 1.13
Name of Action or Project:	Generator installation
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	Install Back-Up Generators at Forsyth City Hall, Forsyth Pd and Fire Station's 1 & 2 and or Applicable City Buildings.
Estimated Cost:	\$20,000-\$100,0000
Benefits:	Provide backup generator to Critical Infrastructure to maintain operations.
	Plan for Implementation
Responsible Organization/Department:	Which organization will be responsible for tracking this action? Be specific to include the specific department or position within a department.
Supporting Organization/Department:	Which organization/department will assist in implementation of this action?
Action/Project Priority:	28
Timeline for Completion:	How many months/years to complete. An estimated range is acceptable (2-4 months, 1-2 years, etc.)
Potential Fund Sources:	List specific funding sources that may be used to pay for the implementation of the action (FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA, EDA, etc.])
Local Planning Mechanisms to	List any planning mechanisms that will be used in the implementation of this
be Used in Implementation, if any:	action (comprehensive plan, capital improvement plan, school infrastructure plan, emergency operations plan, budgeting process, etc.)
willy.	Progress Report
Action Status:	New
Report of Progress:	New – Lack of Funding

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding	
Problem being Mitigated:	Provide new equipment and training to support water rescue operations that we currently do not have.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Forsyth 1.14	
Name of Action or Project:	Water rescue response	
Mitigation Category:	Emergency Services	
Action or Project Description:	enhance water rescue capabilities by purchasing PPE-response equipment such as a boat	
Estimated Cost:	\$2000- \$40,000	
Benefits:	Provide Water rescue equipment and provide	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department –EMD. Fire Chief	
Supporting Organization/Department:	Forsyth Fire Department –EMD. Fire Chief	
Action/Project Priority:	33	
Timeline for Completion:	How many months/years to complete. An estimated range is acceptable (2-4 months, 1-2 years, etc.)	
Potential Fund Sources:	Grants and local Tax revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	Budgeting and working with other Fire agencies with training and equipment usages.	
	Progress Report	
Action Status:	New	
Report of Progress:	Pending New funding support for equipment and additional personal for maintaining water operations. Lack of Funding	

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	Fire Danger	
Problem being Mitigated:	Provide smoke alarms to the community – current houses may not have smoke alarms.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Forsyth 1.15	
Name of Action or Project:	Smoke alarm	
Mitigation Category:	Education and outreach	
Action or Project Description:	provide education and seek funding for smoke alarm programs throughout city limits	
Estimated Cost:	\$500-\$1000	
Benefits:	Providing early recognition of fire, by proving a whole house protection by installing smoke alarms in residence with none	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department/EMD –Fire Chief	
Supporting Organization/Department:	Building Department.	
Action/Project Priority:	43	
Timeline for Completion:	1 Year	
Potential Fund Sources:	Local resources – red cross and local tax revenue.	
Local Planning Mechanisms to be Used in Implementation, if any:	Local resource, Budget.	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Continued installation of smoke alarm in the needed areas. Due to lack of funding for additional smoke alarms it has hampered the program.	

Action Worksheet		
Name of Jurisdiction:	City of Hollister	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Communication of potential hazards.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Hollister 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	0.00	
Benefits:	Decrease damage to properties and/or injury to life. Multiple loads of communications.	
	Plan for Implementation	
Responsible Organization/Department:	COH – Executive Dept.	
Supporting Organization/Department:	COH – Building Official/Building Dept.	
Action/Project Priority:	36	
Timeline for Completion:	Ongoing	
Potential Fund Sources:	Local Tax Revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	Emergency Operations Plan	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Over the last five (5) years implemented social media	

	Action Worksheet
Name of Jurisdiction:	City of Hollister
	Risk / Vulnerability
Hazard(s) Addressed:	Drought, extreme temperature, severe thunderstorms, wildfire.
Problem being Mitigated:	Prevent widespread fires; education
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Hollister 1.2
Name of Action or Project:	Fire-Resistant Construction
Mitigation Category:	Prevention, Education and Outreach
Action or Project Description:	Encourage the use of non-combustible materials for new construction, and fire-resistant landscaping techniques and planting materials in wildfire hazard areas.
Estimated Cost:	0.00
Benefits:	Decrease damage from fires.
	Plan for Implementation
Responsible Organization/Department:	COH - Building Official
Supporting Organization/Department:	COH – Administrative Dept.
Action/Project Priority:	30
Timeline for Completion:	Ongoing
Potential Fund Sources:	Local Tax Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	Adoption of Building Codes
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Continuing of social media

	Action Worksheet		
Name of Jurisdiction:	City of Hollister		
	Risk / Vulnerability		
Hazard(s) Addressed:	All hazards		
Problem being Mitigated:	Education of procedures during hazards		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	City of Hollister 1.3		
Name of Action or Project:	Citizen Preparedness		
Mitigation Category:	Education and Outreach		
Action or Project Description:	Promote participation in citizen preparedness activities, such as: Citizen Corps, CERT, Neighborhood Watch, Fire Corps, Amateur Radio, etc.		
Estimated Cost:	\$1000 -\$5000		
Benefits:	Citizens ready to assist in an emergency and communication throughout the city.		
	Plan for Implementation		
Responsible Organization/Department:	Hollister Police Dept.		
Supporting Organization/Department:	Western Taney County Fire Protection District (WTCFPD)		
Action/Project Priority:	27		
Timeline for Completion:	2-4 years		
Potential Fund Sources:	Local Tax Revenue		
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive Plan and education from first responders.		
Progress Report			
Action Status:	Continuing in Progress		
Report of Progress:	No updates		

Action Worksheet	
Name of Jurisdiction:	City of Hollister
	Risk / Vulnerability
Hazard(s) Addressed:	All hazards
Problem being Mitigated:	Communication
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Hollister 1.4
Name of Action or Project:	Citizen NOAA Radios
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote the use of NOAA weather radios by all residents and businesses.
Estimated Cost:	\$4000 - \$6000
Benefits:	Decrease potential loss of life.
	Plan for Implementation
Responsible Organization/Department:	COH – Building Official/Police Chief
Supporting Organization/Department:	Western Taney County Fire Protection District (WTCFPD)
Action/Project Priority:	34
Timeline for Completion:	Ongoing
Potential Fund Sources:	Local Tax Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	n/a
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	n/a

Action Worksheet			
Name of Jurisdiction:	City of Hollister		
	Risk / Vulnerability		
Hazard(s) Addressed:	All hazards		
Problem being Mitigated:	Communication		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	City of Hollister 1.5		
Name of Action or Project:	Mobile Hazard Alert		
Mitigation Category:	Education and Outreach		
Action or Project Description:	Promote local severe weather alert applications for mobile communications devices.		
Estimated Cost:	\$5000 - \$7000		
Benefits:	Potential loss of life and damage to property		
	Plan for Implementation		
Responsible Organization/Department:	Hollister Police Dept.		
Supporting Organization/Department:	COH – Executive Dept.		
Action/Project Priority:	35		
Timeline for Completion:	Ongoing		
Potential Fund Sources:	Local Tax Revenue		
Local Planning Mechanisms to be Used in Implementation, if any:	Emergency Operations Plan		
Progress Report			
Action Status:	Continuing in Progress		
Report of Progress:	Upgraded our Nixle program within the last five (5) years.		

	Action Worksheet	
Name of Jurisdiction:	City of Hollister	
	Risk / Vulnerability	
Hazard(s) Addressed:	Severe thunderstorms and tornados	
Problem being Mitigated:	No safe place for residents to shelter in during severe thunderstorms or tornado	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Hollister 1.6	
Name of Action or Project:	New Safe Rooms	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Promote construction of safe rooms in new schools, daycares, and nursing homes.	
Estimated Cost:	Undetermined	
Benefits:	Avoid loss of life	
	Plan for Implementation	
Responsible Organization/Department:	COH – Building Official	
Supporting Organization/Department:	COH – Executive Dept.	
Action/Project Priority:	29	
Timeline for Completion:	Ongoing with new construction	
Potential Fund Sources:	Grant sources or private funds	
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive Plan	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	n/a	

	Action Worksheet
Name of Jurisdiction:	City of Hollister
	Risk / Vulnerability
Hazard(s) Addressed:	Severe thunderstorms and tornados
Problem being Mitigated:	Education and outreach
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Hollister 1.7
Name of Action or Project:	Safe Place Awareness
Mitigation Category:	Education and Outreach
Action or Project Description:	Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.
Estimated Cost:	0.00
Benefits:	Potential loss of life
	Plan for Implementation
Responsible Organization/Department:	COH – Building Official
Supporting Organization/Department:	COH – Executive Dept.
Action/Project Priority:	26
Timeline for Completion:	Ongoing
Potential Fund Sources:	Local Tax Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	n/a
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Increase awareness thru social media

	Action Worksheet
Name of Jurisdiction:	City of Hollister
	Risk / Vulnerability
Hazard(s) Addressed:	Severe thunderstorms and tornados
Problem being Mitigated:	Lack of knowledge regarding safe rooms
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Hollister 1.8
Name of Action or Project:	Safe Room Education
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote and distribute FEMA publication 320 which provides information on construction plans and cost estimates for building safe rooms in homes or small businesses, and cost estimates for construction
Estimated Cost:	\$1000
Benefits:	Education, awareness and prevention loss of life
	Plan for Implementation
Responsible Organization/Department:	COH – Building Official
Supporting Organization/Department:	COH – Executive Dept and Taney County Emergency Management
Action/Project Priority:	29
Timeline for Completion:	Ongoing
Potential Fund Sources:	Local Tax Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	n/a
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Very limited interest in safe rooms.

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Public Awareness of hazard vulnerability and mitigation measures.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Merriam Woods 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	No Cost	
Benefits:	Reduction of loss of life, injury and property during hazard events.	
	Plan for Implementation	
Responsible Organization/Department:	Police department	
Supporting Organization/Department:	Police Department	
Action/Project Priority:	14	
Timeline for Completion:	12 months	
Potential Fund Sources:	N/A	
Local Planning Mechanisms to be Used in Implementation, if any:	Use social media	
Progress Report		
Action Status:	Revised, Continuing	
Report of Progress:	Continuing not started. Limited staff.	

Action Worksheet		
Name of Jurisdiction:	City of Merriam Woods	
Risk / Vulnerability		
Hazard(s) Addressed:	Wildfire	
Problem being Mitigated:	Building Loss in Wildfires	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Merriam Woods 1.2	
Name of Action or Project:	Fire-Resistant Construction	
Mitigation Category:	Prevention, Education and Outreach	
Action or Project Description:	Encourage the use of non-combustible materials for new construction, and fire-resistant landscaping techniques and planting materials in wildfire hazard areas.	
Estimated Cost:	Unknown	
Benefits:	Reduction of property loss during wildfires	
	Plan for Implementation	
Responsible Organization/Department:		
Supporting Organization/Department:	Which organization/department will assist in implementation of this action?	
Action/Project Priority:	38 High Priority	
Timeline for Completion:	3-4 years	
Potential Fund Sources:	Building Permit fees	
Local Planning Mechanisms to be Used in Implementation, if any:	Board of Alderman	
	Progress Report	
Action Status:	Revised continued	
Report of Progress:	Continuing not started. Staffing availability.	

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Citizen Preparedness	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Merriam Woods 1.3	
Name of Action or Project:	Citizen Preparedness	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote participation in citizen preparedness activities, such as: Citizen Corps, CERT, Neighborhood Watch, Fire Corps, Amateur Radio, etc.	
Estimated Cost:	Unknown	
Benefits:	Increase citizen awareness of mitigation activities	
	Plan for Implementation	
Responsible Organization/Department:	Police department, Board of Alderman	
Supporting Organization/Department:	Police department and board of alderman	
Action/Project Priority:	24 Low priority.	
Timeline for Completion:	12—15 months	
Potential Fund Sources:	Grants	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Revised continuing	
Report of Progress:	Continuing, lack of funds	

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado thunderstorm, flood, winter, drought, heat	
Problem being Mitigated:	Lack of communication during hazard events	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Merriam Woods 1.4	
Name of Action or Project:	Mobile Hazard Alert	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote local severe weather alert applications for mobile communications devices.	
Estimated Cost:	\$200	
Benefits:	Improves communication during hazard events	
	Plan for Implementation	
Responsible Organization/Department:	Police department	
Supporting Organization/Department:	Police department	
Action/Project Priority:	36 High Priority	
Timeline for Completion:	6 months	
Potential Fund Sources:	General Revenue Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Revised Continuing	
Report of Progress:	Continued not started due to turnover in our departments	

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	Exposure of vulnerable populations to hazards	
Problem being Mitigated:	Tornado, thunderstorms	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Merriam Woods 1.5	
Name of Action or Project:	New Safe Rooms	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Promote construction of safe rooms in new schools, daycares, nursing homes, and appropriate government buildings	
Estimated Cost:	Cost Unknown	
Benefits:	Protects vulnerable populations from hazards	
	Plan for Implementation	
Responsible Organization/Department:	City Administration	
Supporting Organization/Department:	City Administration	
Action/Project Priority:	25 Low	
Timeline for Completion:	On-Going	
Potential Fund Sources:	Grants, General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Revised Continuing	
Report of Progress:	Continued not started due to staff changes	

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado, thunderstorm	
Problem being Mitigated:	Exposure of the public to hazard events	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Merriam Woods 1.6	
Name of Action or Project:	Safe Place Awareness	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.	
Estimated Cost:	Unknown	
Benefits:	Improves public safety	
	Plan for Implementation	
Responsible Organization/Department:	City Administration	
Supporting Organization/Department:	City Administrations	
Action/Project Priority:	25 low	
Timeline for Completion:	On-going	
Potential Fund Sources:	Grants, General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continued not started	
Report of Progress:	Continued not started due to staff changes	

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado	
Problem being Mitigated:	Lack of safe rooms	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Merriam Woods 1.7	
Name of Action or Project:	Safe Room Education	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and distribute FEMA publication 320 which provides information on construction plans and cost estimates for building safe rooms in homes or small businesses, and cost estimates for construction	
Estimated Cost:	\$0-\$500	
Benefits:	Improves education on safe room construction	
	Plan for Implementation	
Responsible Organization/Department:	City Administration and Planning and Zoning	
Supporting Organization/Department:	Planning and Zoning	
Action/Project Priority:	33 High	
Timeline for Completion:	5+ years	
Potential Fund Sources:	General Funds, Grants	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continuing not started	
Report of Progress:	Continuing not started due to change in staff	

	Action Worksheet	
Name of Jurisdiction:	City of Rockaway Beach	
	Risk / Vulnerability	
Hazard(s) Addressed:	all	
Problem being Mitigated:	Public awareness of hazard vulnerability and mitigation measures.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Rockaway Beach 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	100.00	
Benefits:	Reduction of loss of life, injury, and property during hazard events	
	Plan for Implementation	
Responsible Organization/Department:	City Clerk,	
Supporting Organization/Department:	Police Department	
Action/Project Priority:	37	
Timeline for Completion:	Ongoing, currently introduced a new siren to the community	
Potential Fund Sources:	FEMA Grant, and general funds.	
Local Planning Mechanisms to be Used in Implementation, if any:		
	Progress Report	
Action Status:	New, and continuing	
Report of Progress:	We installed new tornado sirens, working toward automated warning s	

Action Worksheet		
Name of Jurisdiction:	City of Rockaway Beach	
	Risk / Vulnerability	
Hazard(s) Addressed:	wildfire	
Problem being Mitigated:	Encourage the use of non-combustible materials for new construction, and fire-resistant landscaping techniques and planting materials in wildfire hazard areas	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Rockaway Beach 1.2	
Name of Action or Project:	Fire-Resistant Construction	
Mitigation Category:	Prevention, Education and Outreach	
Action or Project Description:	Encourage the use of non-combustible materials for new construction, and fire-resistant landscaping techniques and planting materials in wildfire hazard areas.	
Estimated Cost:	unknown	
Benefits:	Reduction of property loss during fires.	
	Plan for Implementation	
Responsible Organization/Department:	City Clerk	
Supporting Organization/Department:	City Government	
Action/Project Priority:	47	
Timeline for Completion:	6 months	
Potential Fund Sources:	Building fund	
Local Planning Mechanisms to be Used in Implementation, if any:	Building codes	
	Progress Report	
Action Status:	Continuing	
Report of Progress:	On-going	

Action Worksheet	
Name of Jurisdiction:	City of Rockaway Beach
	Risk / Vulnerability
Hazard(s) Addressed:	all
Problem being Mitigated:	Promote participation in citizen preparedness activities. Lack of involvement.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Rockaway Beach 1.3
Name of Action or Project:	Citizen Preparedness
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote participation in citizen preparedness activities, such as: Citizen Corps, CERT, Neighborhood Watch, Fire Corps, Amateur Radio, etc.
Estimated Cost:	800
Benefits:	Increase citizen awareness of mitigation activities.
	Plan for Implementation
Responsible Organization/Department:	City Committees.
Supporting Organization/Department:	
Action/Project Priority:	43
Timeline for Completion:	12, on-going
Potential Fund Sources:	Special fund
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Revised. Continuing
Report of Progress:	N/A

Action Worksheet	
Name of Jurisdiction:	City of Rockaway Beach
	Risk / Vulnerability
Hazard(s) Addressed:	All
Problem being Mitigated:	Maintain outdoor warning sirens in public areas
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Rockaway Beach 1.4
Name of Action or Project:	Siren Maintenance
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	Maintain outdoor warning sirens in public areas
Estimated Cost:	4500.00
Benefits:	Ensure the safety of residents when there is an environmental hazard.
	Plan for Implementation
Responsible Organization/Department:	City Clerk
Supporting Organization/Department:	Police Department
Action/Project Priority:	47
Timeline for Completion:	Current, on-going
Potential Fund Sources:	FEMA Grants
Local Planning Mechanisms to be Used in Implementation, if any:	We installed 2 new sirens
Progress Report	
Action Status:	New
Report of Progress:	N/A

Action Worksheet	
Name of Jurisdiction:	City of Rockaway Beach
	Risk / Vulnerability
Hazard(s) Addressed:	All
Problem being Mitigated:	Lack of communication during hazard events
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Rockaway Beach 1.5
Name of Action or Project:	Mobile Hazard Alert
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote local severe weather alert applications for mobile communications devices.
Estimated Cost:	150.00 monthly
Benefits:	Improves communication during hazard events
	Plan for Implementation
Responsible Organization/Department:	City Clerk
Supporting Organization/Department:	
Action/Project Priority:	44
Timeline for Completion:	3+ months
Potential Fund Sources:	General Funds
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Revised, Continuing
Report of Progress:	N/A

	Action Worksheet
Name of Jurisdiction:	City of Rockaway Beach
	Risk / Vulnerability
Hazard(s) Addressed:	Tornado, thunderstorms
Problem being Mitigated:	Exposure of public to hazard events
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	City of Rockaway Beach 1.6
Name of Action or Project:	Safe Place Awareness
Mitigation Category:	Education and Outreach
Action or Project Description:	Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.
Estimated Cost:	Unknown
Benefits:	Improves public safety during hazard events
	Plan for Implementation
Responsible Organization/Department:	City Clerk
Supporting Organization/Department:	City Government
Action/Project Priority:	47
Timeline for Completion:	3+ months
Potential Fund Sources:	General Fund
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Not Started
Report of Progress:	

	Action Worksheet	
Name of Jurisdiction:	City of Rockaway Beach	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado, thunderstorm	
Problem being Mitigated:	Lack of saferooms	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	City of Rockaway Beach 1.7	
Name of Action or Project:	Safe Room Education	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and distribute FEMA publication 320 which provides information on construction plans and cost estimates for building safe rooms in homes or small businesses, and cost estimates for construction	
Estimated Cost:	100.00 annually	
Benefits:	Improve education of safe room construction.	
	Plan for Implementation	
Responsible Organization/Department:	Utility Clerk	
Supporting Organization/Department:	City Clerk	
Action/Project Priority:	46	
Timeline for Completion:	12+ months	
Potential Fund Sources:	General Funds, Grants	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continuing	
Report of Progress:	N/A	

	Action Worksheet	
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood and Storm Awareness	
Problem being Mitigated:	Residents not being prepared for bad weather	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Village of Bull Creek 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	2000.00	
Benefits:	Educate the residents and inform them when bad weather strikes	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	SEMA/FEMA	
Action/Project Priority:	32	
Timeline for Completion:	3 years	
Potential Fund Sources:	General Fund Budget	
Local Planning Mechanisms to be Used in Implementation, if any:	SMCOG	
Progress Report		
Action Status:	New	
Report of Progress:	Funding, Staff availability	

	Action Worksheet	
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood and Storm awareness	
Problem being Mitigated:	Residents not being prepared for bad weather	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Village of Bull Creek 1.2	
Name of Action or Project:	Citizen Preparedness	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote participation in citizen preparedness activities, such as: Citizen Corps, CERT, Neighborhood Watch, Fire Corps, Amateur Radio, etc.	
Estimated Cost:	2000.00	
Benefits:	Educate the residents and inform them when bad weather strikes	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	Taney County, SEMA, FEMA, SMCOG	
Action/Project Priority:	26	
Timeline for Completion:	3 years	
Potential Fund Sources:	Grants	
Local Planning Mechanisms to be Used in Implementation, if any:	SMCOG	
Progress Report		
Action Status:	New	
Report of Progress:	Funding, Staff availability	

	Action Worksheet	
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood and Storm Awareness	
Problem being Mitigated:	Residents not being prepared for bad weather	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Village of Bull Creek 1.3	
Name of Action or Project:	NOAA Radio Purchase	
Mitigation Category:	Education and Outreach, Emergency Services	
Action or Project Description:	Purchase and install NOAA weather radios in schools, government buildings, parks, etc.	
Estimated Cost:	200.00	
Benefits:	Weather updates during severe storms when power goes out	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	same	
Action/Project Priority:	38	
Timeline for Completion:	1 year	
Potential Fund Sources:	General Fund	
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive Plan	
Progress Report		
Action Status:	New	
Report of Progress:	Need to order one	

	Action Worksheet	
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood and Storm Awareness	
Problem being Mitigated:	Residents not being prepared for bad weather	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Village of Bull Creek 1.4	
Name of Action or Project:	Mobile Hazard Alert	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote local severe weather alert applications for mobile communications devices.	
Estimated Cost:	250.00	
Benefits:	Residents can receive weather updates to their mobile devices	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	same	
Action/Project Priority:	25	
Timeline for Completion:	3 years	
Potential Fund Sources:	Grant, State Funding	
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive Plan, Hazard Mitigation Plan	
Progress Report		
Action Status:	New	
Report of Progress:	Need to look into services	

Action Worksheet			
Name of Jurisdiction:	Village of Bull Creek		
	Risk / Vulnerability		
Hazard(s) Addressed:	Protect life from severe weather		
Problem being Mitigated:	Loss of life		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	Village of Bull Creek 1.5		
Name of Action or Project:	New Safe Rooms		
Mitigation Category:	Structure and Infrastructure Projects		
Action or Project Description:	Promote construction of safe rooms in new schools, daycares, nursing homes, and appropriate government buildings		
Estimated Cost:	N/A		
Benefits:	Protect loss of life		
	Plan for Implementation		
Responsible Organization/Department:	Residents of Bull Creek Village		
Supporting Organization/Department:	Bull Creek Village Board of Trustees		
Action/Project Priority:	21		
Timeline for Completion:	5 years		
Potential Fund Sources:	N/A		
Local Planning Mechanisms to be Used in Implementation, if any:	Hazard Mitigation Plan		
	Progress Report		
Action Status:	New		
Report of Progress:	N/A		

	Action Worksheet	
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado, thunderstorm	
Problem being Mitigated:	Loss of life	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Village of Bull Creek 1.6	
Name of Action or Project:	Safe Place Awareness	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.	
Estimated Cost:	2500.00	
Benefits:	Loss of life	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	SEMA, FEMA, Taney County	
Action/Project Priority:	23	
Timeline for Completion:	5 years	
Potential Fund Sources:	grants	
Local Planning Mechanisms to be Used in Implementation, if any:	SMCOG, Taney County	
Progress Report		
Action Status:	New	
Report of Progress:	Not started	

Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Protect life from severe weather	
Problem being Mitigated:	Loss of life	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Village of Bull Creek 1.7	
Name of Action or Project:	Safe Room Education	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and distribute FEMA publication 320 which provides information on construction plans and cost estimates for building safe rooms in homes or small businesses, and cost estimates for construction	
Estimated Cost:	100.00	
Benefits:	Educate residents on steps they can take to make homes safer	
Plan for Implementation		
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:		
Action/Project Priority:	43	
Timeline for Completion:	2 years	
Potential Fund Sources:	General Fund	
Local Planning Mechanisms to be Used in Implementation, if any:	mailers	
Progress Report		
Action Status:	New	
Report of Progress:	Need to get the information to copy and disseminate	

Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Heat/Cooling during extreme weather	
Problem being Mitigated:	Educate residents on proper heating/cooling	
Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Village of Bull Creek 1.8	
Name of Action or Project:	Heating and Cooling Centers	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Organize outreach to at-risk populations, including establishing and promoting accessible heating and cooling centers in the community.	
Estimated Cost:	N/A	
Benefits:	Educate residents on steps they can take to make homes safer	
Plan for Implementation		
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:		
Action/Project Priority:	23	
Timeline for Completion:	5 years	
Potential Fund Sources:	Grants	
Local Planning Mechanisms to be Used in Implementation, if any:	mailers	
Progress Report		
Action Status:	New	
Report of Progress:	Need to get the information to copy and disseminate	

	Action Worksheet	
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Water Conservation	
Problem being Mitigated:	Wasting Water	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Village of Bull Creek 1.9	
Name of Action or Project:	Water conservation	
Mitigation Category:	Prevention	
Action or Project Description:	replace existing water meters in the village with new ones that will read more accurately and cause the residents to conserve water in order to maintain an affordable water/sewer bill	
Estimated Cost:	5000.00	
Benefits:	Will conserve water use	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:		
Action/Project Priority:	36	
Timeline for Completion:	complete	
Potential Fund Sources:	ARPA Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	Water department personnel, plumber	
Progress Report		
Action Status:	Complete	
Report of Progress:	Complete	

Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	All	
Problem being Mitigated:	Outdated building codes	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Village of Bull Creek 1.10	
Name of Action or Project:	Building Codes	
Mitigation Category:	Prevention	
Action or Project Description:	Update building codes to make sure we are current	
Estimated Cost:	4500.00	
Benefits:	Homes will be updated and safe	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:		
Action/Project Priority:	26	
Timeline for Completion:	4 years	
Potential Fund Sources:	General fund	
Local Planning Mechanisms to be Used in Implementation, if any:	SMCOG	
	Progress Report	
Action Status:	Continuing	
Report of Progress:	Not started yet	

Action Worksheet		
Name of Jurisdiction:	Branson R-IV School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Public Awareness	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Branson R-IV School District 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	Minimal	
Benefits:	Reduction of loss of life, injury or property.	
Plan for Implementation		
Responsible Organization/Department:	Communication Department.	
Supporting Organization/Department:	Operations	
Action/Project Priority:	34	
Timeline for Completion:	1-2	
Potential Fund Sources:	Local Funding	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
	Progress Report	
Action Status:	Continuing in progress	
Report of Progress:	New Administration	

Action Worksheet			
Name of Jurisdiction:	Branson R-IV School District		
	Risk / Vulnerability		
Hazard(s) Addressed:	All hazards		
Problem being Mitigated:			
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	Branson R-IV School District 1.2		
Name of Action or Project:	Mitigation Education		
Mitigation Category:	Education and Outreach		
Action or Project Description:	promote natural hazard educational programs in school communication and curriculum, where feasible		
Estimated Cost:	Minimal		
Benefits:	Reduction of loss of life, injury or property		
	Plan for Implementation		
Responsible Organization/Department:	Communication Department		
Supporting Organization/Department:	Curriculum Department		
Action/Project Priority:	25		
Timeline for Completion:	2-4 years		
Potential Fund Sources:	Local Tax Revenue/local funding		
Local Planning Mechanisms to be Used in Implementation, if any:			
	Progress Report		
Action Status:	New		
Report of Progress:	Time Constraints on people available.		

	Action Worksheet	
Name of Jurisdiction:	Branson R-IV School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	"No safe place for residents to shelter in during tornados and severe thunderstorms")	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Branson R-IV School District 1.3	
Name of Action or Project:	New Safe Rooms	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	add new safe rooms to school facilities as needed	
Estimated Cost:	\$7-10 million	
Benefits:	Reduction of loss of life, injury or property	
	Plan for Implementation	
Responsible Organization/Department:	District Administration	
Supporting Organization/Department:	Operations	
Action/Project Priority:	38	
Timeline for Completion:	2-4 years	
Potential Fund Sources:	Bond issue and grants	
Local Planning Mechanisms to be Used in Implementation, if any:	budgeting	
Progress Report		
Action Status:	New	
Report of Progress:	Potential funding issues	

	Action Worksheet	
Name of Jurisdiction:	Forsyth R-III School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Public Awareness	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Forsyth R-III School District 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	Minimal	
Benefits:	Reduction of loss of life, injury or property.	
	Plan for Implementation	
Responsible Organization/Department:	Communication Department.	
Supporting Organization/Department:	Operations	
Action/Project Priority:	34	
Timeline for Completion:	1-2	
Potential Fund Sources:	Local Funding	
Local Planning Mechanisms to be Used in Implementation, if any:	Mitigation plan	
Progress Report		
Action Status:	Continuing in progress	
Report of Progress:	Continue social media and school wide alert and information system to distribute information	

	Action Worksheet	
Name of Jurisdiction:	Forsyth R-III School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Limited mitigation education knowledge	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Forsyth R-III School District 1.2	
Name of Action or Project:	Mitigation Education	
Mitigation Category:	Education and Outreach	
Action or Project Description:	promote natural hazard educational programs in school communication and curriculum, where feasible	
Estimated Cost:	Minimal	
Benefits:	Reduction of loss of life, injury or property	
	Plan for Implementation	
Responsible Organization/Department:	Communication Department	
Supporting Organization/Department:	Curriculum Department	
Action/Project Priority:	34	
Timeline for Completion:	2-4 years	
Potential Fund Sources:	Local Tax Revenue/local funding	
Local Planning Mechanisms to be Used in Implementation, if any:	Budgeting process	
Progress Report		
Action Status:	Continue	
Report of Progress:	Add in-class and age-appropriate curriculum to educate on mitigation programs	

	Action Worksheet
Name of Jurisdiction:	Forsyth R-III School District
	Risk / Vulnerability
Hazard(s) Addressed:	All hazards
Problem being Mitigated:	"No safe place for residents to shelter in during tornados and severe thunderstorms")
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Forsyth R-III School District 1.3
Name of Action or Project:	New Safe Rooms
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	add new safe rooms to school facilities as needed
Estimated Cost:	1-2 million
Benefits:	Reduction of loss of life, injury or property
	Plan for Implementation
Responsible Organization/Department:	District Administration
Supporting Organization/Department:	Operations
Action/Project Priority:	35
Timeline for Completion:	2-4 years
Potential Fund Sources:	Bond issue and grants
Local Planning Mechanisms to be Used in Implementation, if any:	Budget process, emergency operations plan, school plan
Progress Report	
Action Status:	Continue
Report of Progress:	We are going to attempt to certify our gym locker rooms as safe rooms

	Action Worksheet	
Name of Jurisdiction:	Forsyth R-III School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado, thunderstorm	
Problem being Mitigated:	Students and staff don't know where to shelter during storms	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Forsyth R-III School District 1.4	
Name of Action or Project:	Safe place awareness	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	create and update tornado/severe storm plans and identify strong, safe places in schools	
Estimated Cost:	Can be completed with current budget	
Benefits:	Safe place to shelter during storms	
	Plan for Implementation	
Responsible Organization/Department:	District Administration	
Supporting Organization/Department:	Operations	
Action/Project Priority:	37	
Timeline for Completion:	Less than a year	
Potential Fund Sources:	Local funds	
Local Planning Mechanisms to be Used in Implementation, if any:	Budget process, emergency operations plan, crisis plans	
Progress Report		
Action Status:	Continue	
Report of Progress:	Our crisis plans are updated annually, we will digitize all plans this year	

	Action Worksheet
Name of Jurisdiction:	Hollister R-V School District
	Risk / Vulnerability
Hazard(s) Addressed:	All
Problem being Mitigated:	Residents need to know how the tornado shelter works including, when it is open to the public, when it is open during a watch/warning, who is allowed access, etc. This can be accomplished via web-based services.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Hollister R-V School District 1.1
Name of Action or Project:	Awareness Program
Mitigation Category:	Education and Outreach
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities
Estimated Cost:	\$1,000 per year. This comes from part of the salary of our communications director.
Benefits:	Loss of life of those who are able to access the tornado shelter.
	Plan for Implementation
Responsible Organization/Department:	Communications team.
Supporting Organization/Department:	Central Office.
Action/Project Priority:	36
Timeline for Completion:	1 year
Potential Fund Sources:	Local funds
Local Planning Mechanisms to be Used in Implementation, if any:	EOP
Progress Report	
Action Status:	Continuing
Report of Progress:	As individuals move in and out of the district this must be an ongoing action step. 1) to remind those who are here and 2) to inform any new citizens.

	Action Worksheet
Name of Jurisdiction:	Hollister R-V School District
	Risk / Vulnerability
Hazard(s) Addressed:	All
Problem being Mitigated:	Teach students about the different hazard mitigation systems we have.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Hollister R-V School District 1.2
Name of Action or Project:	Mitigation Education
Mitigation Category:	Education and Outreach
Action or Project Description:	promote natural hazard educational programs in school communication and curriculum, where feasible
Estimated Cost:	\$0
Benefits:	Students will practice fire, tornado, earthquake and active shooter drills. These drills and the curriculum used to teach students are designed and carried out in hopes to save lives should any of these things happen.
	Plan for Implementation
Responsible Organization/Department:	Building principals.
Supporting Organization/Department:	Central Office
Action/Project Priority:	41
Timeline for Completion:	12 months
Potential Fund Sources:	Local funds
Local Planning Mechanisms to be Used in Implementation, if any:	Emergency Operating Procedure Manual
Progress Report	
Action Status:	Continuing.
Report of Progress:	As students move in and out of the district, they need to be 1) reminded of our EOPs and 2) informed of our EOPs.

	Action Worksheet	
Name of Jurisdiction:	Hollister R-V School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado, thunderstorm	
Problem being Mitigated:	Only two buildings have tornado shelters attached to them. There are four buildings with students in them in our district.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Hollister R-V School District 1.3	
Name of Action or Project:	New Safe Rooms	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	add new safe rooms to school facilities as needed	
Estimated Cost:	\$1.4 million	
Benefits:	Lives could be saved by not having to go outside to access a shelter during tornado warnings.	
	Plan for Implementation	
Responsible Organization/Department:	Maintenance	
Supporting Organization/Department:	Central Office.	
Action/Project Priority:	19	
Timeline for Completion:	3 years	
Potential Fund Sources:	FEMA, Local Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	EOPs and School Board Policy.	
Progress Report		
Action Status:	New	
Report of Progress:	FEMA funding and local funding could be an issue to getting this finished as not all FEMA funding would be a 100% reimbursement.	

Action Worksheet	
Name of Jurisdiction:	Hollister R-V School District
	Risk / Vulnerability
Hazard(s) Addressed:	All
Problem being Mitigated:	Making sure that all plans are up to date to prepare for a hazardous event.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Hollister R-V School District 1.4
Name of Action or Project:	Safe Place Awareness
Mitigation Category:	Education and Outreach
Action or Project Description:	Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.
Estimated Cost:	\$100/year (cost of paper and ink to print)
Benefits:	Making sure expectations are communicated clearly to all stakeholders for hazardous situations.
	Plan for Implementation
Responsible Organization/Department:	Building principals.
Supporting Organization/Department:	Central Office
Action/Project Priority:	43
Timeline for Completion:	1 month
Potential Fund Sources:	Local Funds
Local Planning Mechanisms to be Used in Implementation, if any:	Policy and standards EOP
Progress Report	
Action Status:	Continuing
Report of Progress:	Most plans are updated and visited by the district safety team annually for changes.

	Action Worksheet
Name of Jurisdiction:	Hollister R-V School District
	Risk / Vulnerability
Hazard(s) Addressed:	Tornado, thunderstorm
Problem being Mitigated:	Being able to receive information quickly about incoming weather.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Hollister R-V School District 1.5
Name of Action or Project:	NOAA Radio Purchase
Mitigation Category:	Education and Outreach, Emergency Services
Action or Project Description:	Purchase and install NOAA weather radios in schools, government buildings, parks, etc. Review and recommend – Weather Ready Community Program
Estimated Cost:	\$500
Benefits:	This will allow us to get weather updates faster so that we can seek the proper type of shelter immediately.
	Plan for Implementation
Responsible Organization/Department:	Maintenance
Supporting Organization/Department:	Central Office
Action/Project Priority:	48
Timeline for Completion:	2 months
Potential Fund Sources:	FEMA, Taney Co Health, Local Funds
Local Planning Mechanisms to be Used in Implementation, if any:	District EOP guidelines
Progress Report	
Action Status:	Continuing
Report of Progress:	The district currently has NOAA radios, but many are aging and need to be replaced with modern digital radios.

Action Worksheet		
Name of Jurisdiction:	Kirbyville R-VI School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Public awareness of hazard vulnerability and mitigation measures	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Kirbyville R-VI School District 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	\$0	
Benefits:	Reduction of loss of life, injury, and property during hazard events.	
	Plan for Implementation	
Responsible Organization/Department:	District/School Administration	
Supporting Organization/Department:	County municipalities if applicable	
Action/Project Priority:	34 / H	
Timeline for Completion:	Immediate to 3 years (ongoing)	
Potential Fund Sources:	No funding identified at this time. Would be local funding if no grants.	
Local Planning Mechanisms to be Used in Implementation, if any:	District Evaluations	
Progress Report		
Action Status:	Continuing	
Report of Progress:	Limited staff and funding	

	Action Worksheet
Name of Jurisdiction:	Kirbyville R-VI School District
	Risk / Vulnerability
Hazard(s) Addressed:	All Hazards
Problem being Mitigated:	Lack of public awareness
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Kirbyville R-VI School District 1.2
Name of Action or Project:	Mitigation Education
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote natural hazard educational programs in school communication and curriculum, where feasible
Estimated Cost:	\$0-\$1000
Benefits:	Enhances Hazard Education and Awareness
	Plan for Implementation
Responsible Organization/Department:	Kirbyville R-VI
Supporting Organization/Department:	Taney County and SEMA
Action/Project Priority:	34 / H
Timeline for Completion:	Ongoing (2-4 years)
Potential Fund Sources:	DNR or FEMA grants. Local funding.
Local Planning Mechanisms to be Used in Implementation, if any:	Components are a part of the district emergency plan and communications.
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Minor progress has been made.

	Action Worksheet
Name of Jurisdiction:	Kirbyville R-VI School District
	Risk / Vulnerability
Hazard(s) Addressed:	Tornado, thunderstorms, flooding, winter storms (snow/sleet), drought and extreme temperatures
Problem being Mitigated:	Lack of communication during hazardous events
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Kirbyville R-VI School District 1.3
Name of Action or Project:	NOAA Radio Purchase
Mitigation Category:	Education and Outreach, Emergency Services
Action or Project Description:	Purchase and install NOAA weather radios in schools, government buildings, parks, etc. Review and recommend – Weather Ready Community Program
Estimated Cost:	\$300 to \$600
Benefits:	Improves communication during a hazardous event
	Plan for Implementation
Responsible Organization/Department:	Kirbyville R-VI / Administration
Supporting Organization/Department:	Local County Emergency Management Office
Action/Project Priority:	37 / H
Timeline for Completion:	Immediate to 3 years (ongoing)
Potential Fund Sources:	Local funding and possible county or state grants
Local Planning Mechanisms to be Used in Implementation, if any:	Emergency operations
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	All school buildings have a NOAA weather radio

	Action Worksheet	
Name of Jurisdiction:	Kirbyville R-VI School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Poor communication and education regarding safety and hazardous mitigation.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Kirbyville R-VI School District 1.4	
Name of Action or Project:	Mobile Hazard Alert	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote local severe weather alert applications for mobile communications devices.	
Estimated Cost:	\$0 to \$1000	
Benefits:	Providing information and communication on all types of hazards, preparedness, and mitigation measures, and responses during hazard events.	
	Plan for Implementation	
Responsible Organization/Department:	State and County Emergency Management Offices.	
Supporting Organization/Department:	Kirbyville School District	
Action/Project Priority:	31/H	
Timeline for Completion:	1 – 3 years	
Potential Fund Sources:	FEMA, SEMA, DNR, Taney County, local funding	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Continuing in Progress, none to be reported	

	Action Worksheet	
Name of Jurisdiction:	Kirbyville R-VI School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado, thunderstorm	
Problem being Mitigated:	Limited safe places to shelter during severe weather	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Kirbyville R-VI School District 1.5	
Name of Action or Project:	New safe rooms	
Mitigation Category:	Structure and infrastructure projects	
Action or Project Description:	Build a new safe room at the school facility	
Estimated Cost:	100-500k	
Benefits:	Safe place to shelter	
	Plan for Implementation	
Responsible Organization/Department:	Kirbyville R-VI / Administration.	
Supporting Organization/Department:		
Action/Project Priority:	32	
Timeline for Completion:	1 – 3 years	
Potential Fund Sources:	FEMA, SEMA, DNR, Taney County, local funding	
Local Planning Mechanisms to be Used in Implementation, if any:		
Progress Report		
Action Status:	New	
Report of Progress:		

Action Worksheet		
Name of Jurisdiction:	Taneyville R-II School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	flooding, severe thunderstorms, tornado, and severe winter weather.	
Problem being Mitigated:	Increasing awareness of mitigation activities.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Taneyville R-II School District 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities.	
Estimated Cost:	\$0-\$10,000	
Benefits:	Increasing awareness of mitigation strategies will increase community participation in these activities, which in turn will increase protection from hazards.	
	Plan for Implementation	
Responsible Organization/Department:	Taneyville School Admin, Taneyville Village Board, and Local Officials	
Supporting Organization/Department:	Support Staff	
Action/Project Priority:	29, Medium Priority	
Timeline for Completion:	6 months-1 year	
Potential Fund Sources:	FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA, EDA, etc.])	
Local Planning Mechanisms to be Used in Implementation, if any:	Emergency safety & operations plan	
Progress Report		
Action Status:	Continuing Not Started	
Report of Progress:	The action is not started due to limited staff availability and lack of mitigation strategies currently being implemented in the community to prevent hazards.	

Action Worksheet		
Name of Jurisdiction:	Taneyville R-II School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	flooding, severe thunderstorms, tornado, and severe winter weather.	
Problem being Mitigated:	Lack of hazard educational programs in schools.	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Taneyville R-II School District 1.2	
Name of Action or Project:	Mitigation Education	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote natural hazard educational programs in school communication and curriculum, where feasible	
Estimated Cost:	\$0-\$10,000	
Benefits:	Increase student and community awareness of hazard mitigation.	
	Plan for Implementation	
Responsible Organization/Department:	Taneyville School/Administration	
Supporting Organization/Department:	Classroom teachers	
Action/Project Priority:	35, High Priority	
Timeline for Completion:	1-9 months annually	
Potential Fund Sources:	FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA, EDA, etc.]	
Local Planning Mechanisms to be Used in Implementation, if any:	Safety & emergency operations plan.	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	The lack of curriculum and active mitigation strategies present a barrier in the progress. Core curriculum has to be the primary focus in school districts, so the lack of time also presents a barrier. The district continues to collaborate with local fire, paramedic, and police departments to provide educational awareness each year.	

Action Worksheet	
Name of Jurisdiction:	Taneyville R-II School District
	Risk / Vulnerability
Hazard(s) Addressed:	severe thunderstorms and tornado.
Problem being Mitigated:	Identification of safe places in the school and community during severe weather event.
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Taneyville R-II School District 1.3
Name of Action or Project:	Safe Place Awareness
Mitigation Category:	Education and Outreach
Action or Project Description:	Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.
Estimated Cost:	\$0-\$5,000
Benefits:	The identification of safe locations during severe weather could prevent the loss of lives.
	Plan for Implementation
Responsible Organization/Department:	Taneyville School District/Admin for the safe locations within the school
Supporting Organization/Department:	Classroom teachers and personnel
Action/Project Priority:	40, high priority
Timeline for Completion:	1-9 months, annually
Potential Fund Sources:	Local tax revenue, state funding, loans, bonds, other grant sources.
Local Planning Mechanisms to be Used in Implementation, if any:	Crisis plan, safety & emergency operations plan.
	Progress Report
Action Status:	Continuing in Progress
Report of Progress:	The district continues to implement safety plans and drills to ensure all students and staff are aware of the safest locations in the school during severe weather. A barrier for increased awareness of safe locations throughout the community are the lack of physically safe locations for members to go in the event of severe weather, especially with the large volume of mobile homes in the community. The school is also only available to school staff and students, and only during operating hours.

	Action Worksheet		
Name of Jurisdiction:	Taneyville R-II School District		
	Risk / Vulnerability		
Hazard(s) Addressed:	severe thunderstorms and tornado.		
Problem being Mitigated:	No safe place for residents to shelter in during tornados and severe thunderstorms.		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	Taneyville R-II School District 1.4		
Name of Action or Project:	Safe room construction		
Mitigation Category:	Structure and Infrastructure Projects		
Action or Project Description:	Construct a safe room on school grounds and for the community. As a community with a large population of trailer homes, this is a very prevalent need. The school would work with the Village or local fire department to give them access for the community to utilize.		
Estimated Cost:	\$1,000,000-\$5,000,000		
Benefits:	A safe room would provide a large population of the community with a safe location during severe weather and tornadic events. A safe building open to the community could prevent the loss of life.		
	Plan for Implementation		
Responsible Organization/Department:	Taneyville School Board and Administration		
Supporting Organization/Department:	Fire Department and/or Taneyville Village Board		
Action/Project Priority:	33, High Priority		
Timeline for Completion:	1-5 years		
Potential Fund Sources:	FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA, EDA]		
Local Planning Mechanisms to be Used in Implementation, if any:	The following plans will be used for implementation: comprehensive plan, emergency operations plan, and budgeting process.		
Progress Report			
Action Status:	New		
Report of Progress:	The major barrier for implementation includes acquisition of land near the school, and the large costs of constructing a safe room/building.		

	Action Worksheet	
Name of Jurisdiction:	Taney County Regional Sewer District	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado, Flooding, Severe Thunderstorms, Severe Winter Weather	
Problem being Mitigated:	Not mitigation information commonly available	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Taney County Regional Sewer District 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	N/A Already have social media available	
Benefits:	Social Media can provide pertinent information to the public	
	Plan for Implementation	
Responsible Organization/Department:	Administrative	
Supporting Organization/Department:	Administrative	
Action/Project Priority:	42	
Timeline for Completion:	Ongoing	
Potential Fund Sources:	N/A; none needed	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Continually updated	

	Action Worksheet	
Name of Jurisdiction:	Taney County Regional Sewer District	
	Risk / Vulnerability	
Hazard(s) Addressed:	Dam failure, drought, earthquake, extreme temperature, flooding, severe thunderstorms, tornado, wildfire, severe winter weather	
Problem being Mitigated:	No notification of extreme weather occurrences and conditions in rural areas	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Taney County Regional Sewer District 1.2	
Name of Action or Project:	NOAA Radio Purchase	
Mitigation Category:	Education and Outreach, Emergency Services	
Action or Project Description:	Purchase and install NOAA weather radios in schools, government buildings, parks, etc. Review and recommend – Weather Ready Community Program	
Estimated Cost:	\$20	
Benefits:	Prevent equipment damage prior to event or loss of life	
	Plan for Implementation	
Responsible Organization/Department:	Administrator	
Supporting Organization/Department:	Administrative Office	
Action/Project Priority:	36	
Timeline for Completion:	Purchased in 2022	
Potential Fund Sources:	N/A, already purchased	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Purchased radio for Administrative Office	

	Action Worksheet
Name of Jurisdiction:	Taney County Regional Sewer District
	Risk / Vulnerability
Hazard(s) Addressed:	Dam failure, drought, earthquake, extreme temperature, flooding, severe thunderstorms, tornado, wildfire, severe winter weather
Problem being Mitigated:	Minimal public information available to promote citizen use of NOAA Radios
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Taney County Regional Sewer District 1.3
Name of Action or Project:	Citizen NOAA Radios
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote the use of NOAA weather radios by all residents and businesses. Continue finding grant funding for place new weather radios and replacements.
Estimated Cost:	N/A
Benefits:	Education could provide loss of life or dame of property
	Plan for Implementation
Responsible Organization/Department:	Administrative
Supporting Organization/Department:	Administrative Office
Action/Project Priority:	34
Timeline for Completion:	Ongoing Education
Potential Fund Sources:	N/A
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Promote use through public speaking engagements

Action Worksheet	
Name of Jurisdiction:	Taney County Regional Sewer District
	Risk / Vulnerability
Hazard(s) Addressed:	Dame failure, drought, earthquake, extreme temperature, land subsidence/sinkholes, flooding severe thunderstorms, tornado, wildfire, severe winter weather
Problem being Mitigated:	No public alerts in rural areas
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Taney County Regional Sewer District 1.4
Name of Action or Project:	Mobile Hazard Alert
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote local severe weather alert applications for mobile communications devices.
Estimated Cost:	N/A
Benefits:	Prevent possible damage to equipment, structures and possible loss of life
	Plan for Implementation
Responsible Organization/Department:	Administrative
Supporting Organization/Department:	Administration Office
Action/Project Priority:	37
Timeline for Completion:	Ongoing
Potential Fund Sources:	N/A
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
	Progress Report
Action Status:	Continuing Progress
Report of Progress:	Continually upgrading phone capabilities and NOAA app

Action Worksheet	
Name of Jurisdiction:	Taney County Regional Sewer District
	Risk / Vulnerability
Hazard(s) Addressed:	Severe thunderstorms, tornado
Problem being Mitigated:	Awareness of residents place to shelter in during tornados and severe thunderstorms
	Action or Project
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.
Action/Project Number:	Taney County Regional Sewer District 1.5
Name of Action or Project:	Safe Place Awareness
Mitigation Category:	Education and Outreach
Action or Project Description:	Create and update tornado/severe storm plans and identify strong, safe places in schools, large facilities, and other establishments serving the public.
Estimated Cost:	N/A
Benefits:	Loss of life could be avoided
	Plan for Implementation
Responsible Organization/Department:	Administrative
Supporting Organization/Department:	Office Administration
Action/Project Priority:	35
Timeline for Completion:	Ongoing
Potential Fund Sources:	N/A
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continuing in progress
Report of Progress:	Continual review of plan

	Action Worksheet	
Name of Jurisdiction:	Western Taney County Fire Protection District	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Public awareness of hazard vulnerability and mitigation measures	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Western Taney County Fire Protection District 1.1	
Name of Action or Project:	Awareness Program	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Use local and regional traditional media, and social media platforms, to raise awareness of mitigation activities	
Estimated Cost:	\$1000 annually for advertising & staff costs	
Benefits:	Reduction of loss of life, injury, and property during hazard events.	
	Plan for Implementation	
Responsible Organization/Department:	Prevention Office	
Supporting Organization/Department:		
Action/Project Priority:	High; 40	
Timeline for Completion:	Continuous	
Potential Fund Sources:	General funds	
Local Planning Mechanisms to be Used in Implementation, if any:		
Progress Report		
Action Status:	Continuing; in progress	
Report of Progress:	Included with prevention activities throughout the year.	

Action Worksheet			
Name of Jurisdiction:	Western Taney County Fire Protection District		
	Risk / Vulnerability		
Hazard(s) Addressed:	Wildfire		
Problem being Mitigated:	Building loss in wildfire events		
	Action or Project		
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.		
Action/Project Number:	Western Taney County Fire Protection District 1.2		
Name of Action or Project:	Fire-Resistant Construction		
Mitigation Category:	Prevention, Education and Outreach		
Action or Project Description:	Encourage the use of non-combustible materials for new construction, and fire-resistant landscaping techniques and planting materials in wildfire hazard areas.		
Estimated Cost:	\$10,000-\$50,000		
Benefits:	Reduction of property loss during wildfires		
	Plan for Implementation		
Responsible Organization/Department:	Prevention Office		
Supporting Organization/Department:			
Action/Project Priority:	High; 40		
Timeline for Completion:	Continuous		
Potential Fund Sources:	Federal Rural School Grant		
Local Planning Mechanisms to be Used in Implementation, if any:	Wildfire Plan		
	Progress Report		
Action Status:	Continuing- in progress		
Report of Progress:	Overcoming the public perception that it will not happen to them by presentations and events.		

Action Worksheet		
Name of Jurisdiction:	Western Taney County Fire Protection District	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado, Severe Storm, Flood, Winter, Drought, Heat	
Problem being Mitigated:	Lack of communication during hazard events	
	Action or Project	
Applicable Goal Statement:	Goal 1: Protect the lives and livelihoods of all citizens.	
Action/Project Number:	Western Taney County Fire Protection District 1.3	
Name of Action or Project:	NOAA Radio Purchase	
Mitigation Category:	Education and Outreach, Emergency Services	
Action or Project Description:	Purchase and install NOAA weather radios in schools, government buildings, parks, etc. Review and recommend – Weather Ready Community Program	
Estimated Cost:	\$400	
Benefits:	Improves communication during hazard events	
	Plan for Implementation	
Responsible Organization/Department:	District Office	
Supporting Organization/Department:		
Action/Project Priority:	High; 38	
Timeline for Completion:	6 months	
Potential Fund Sources:	General funds	
Local Planning Mechanisms to be Used in Implementation, if any:	n/a	
	Progress Report	
Action Status:	Continuing, in progress	
Report of Progress:	Some stations in the district have NOAA radios.	

Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy.

Action Worksheet		
Name of Jurisdiction:	Taney County	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood	
Problem being Mitigated:	Flood damage to properties and infrastructure	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	Taney County 2.1	
Name of Action or Project:	Flood Mitigation	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Acquire, elevate or flood-proof properties and critical infrastructure within flood hazard areas	
Estimated Cost:	\$1 million +	
Benefits:	Reduces the risk of flood damage to properties and infrastructure	
	Plan for Implementation	
Responsible Organization/Department:	Taney County Planning & Zoning	
Supporting Organization/Department:	Taney County Emergency Management, Taney County Commission	
Action/Project Priority:	High; 36	
Timeline for Completion:	2-5 years/project	
Potential Fund Sources:	HMGP, CDBG, County Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	n/a	
	Progress Report	
Action Status:	Continuing, in progress	
Report of Progress:	Purchase frequently flooded homes. Flood-proof infrastructure in flood prone areas.	

Action Worksheet		
Name of Jurisdiction:	Taney County	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado, Severe Storm, Winter Weather	
Problem being Mitigated:	Exposure of utilities to natural hazards	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	Taney County 2.2	
Name of Action or Project:	Utility Relocation	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Encourage utilities to relocate and/or place underground infrastructure.	
Estimated Cost:	n/a	
Benefits:	Protects vulnerable utilities from natural hazards	
	Plan for Implementation	
Responsible Organization/Department:	Individual private and non-profit utility companies	
Supporting Organization/Department:		
Action/Project Priority:	High; 36	
Timeline for Completion:	n/a	
Potential Fund Sources:	n/a	
Local Planning Mechanisms to be Used in Implementation, if any:	n/a	
	Progress Report	
Action Status:	Continuing, in progress	
Report of Progress:		

Action Worksheet		
Name of Jurisdiction:	Taney County	
Risk / Vulnerability		
Hazard(s) Addressed:	Dam Failure, Flood	
Problem being Mitigated:	Need for enhanced preparedness to a dam failure/flooding event	
Action or Project		
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	Taney County 2.3	
Name of Action or Project:	Dam Emergency Partnership	
Mitigation Category:	Education and Outreach, Emergency Services	
Action or Project Description:	Partner with and participate in dam emergency planning and exercises.	
Estimated Cost:	Absorbed by existing staff costs	
Benefits:	Helps the county be prepared for a dam failure/flooding event.	
	Plan for Implementation	
Responsible Organization/Department:	Taney County Emergency Management	
Supporting Organization/Department:	Taney County Planning & Zoning, Taney County Road & Bridge, Taney County Commission, Taney County Sheriff	
Action/Project Priority:	High; 37	
Timeline for Completion:	Continuous	
Potential Fund Sources:	County funds, federal funds, USACE, private	
Local Planning Mechanisms to be Used in Implementation, if any:	Dam Emergency Action Plans	
	Progress Report	
Action Status:	Continuing, in progress	
Report of Progress:	Participate in planning sessions, exercises, and emergency action plan reviews with dam owners/operators in the county. Maintain open dialogue with dam owners/operators during fair weather and emergency events.	

Action Worksheet	
Name of Jurisdiction:	Taney County
Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards
Problem being Mitigated:	Poor land use practices can lead to greater damage in hazard events
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	Taney County 2.4
Name of Action or Project:	Update Codes
Mitigation Category:	Prevention
Action or Project Description:	Adopt updated international codes and land use development policies, where applicable.
Estimated Cost:	\$200,000
Benefits:	Decreases the exposure of buildings to hazard events
	Plan for Implementation
Responsible Organization/Department:	Taney County Commission
Supporting Organization/Department:	Taney County Planning & Zoning
Action/Project Priority:	High; 34
Timeline for Completion:	Continuous
Potential Fund Sources:	General funding, external funds
Local Planning Mechanisms to be Used in Implementation, if any:	No local backing at this time
	Progress Report
Action Status:	Continuing
Report of Progress:	No local backing at this time.

Action Worksheet		
Name of Jurisdiction:	Taney County	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding	
Problem being Mitigated:	Exposure of structures to flooding	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	Taney County 2.5	
Name of Action or Project:	NFIP Requirement Enforcement	
Mitigation Category:	Prevention	
Action or Project Description:	Communities in Taney County that participate in NFIP will enforce floodplain management requirements, including regulating all new and substantially improved construction in the Special Flood Hazard Areas (SFHAs).	
Estimated Cost:	\$200,000	
Benefits:	Mitigates the damage to structures in flooding events	
	Plan for Implementation	
Responsible Organization/Department:	Floodplain Administrator	
Supporting Organization/Department:	Taney County Planning and Zoning	
Action/Project Priority:	High; 43	
Timeline for Completion:	Continuous	
Potential Fund Sources:	General funds & permit fees	
Local Planning Mechanisms to be Used in Implementation, if any:	Floodplain Ordinance	
	Progress Report	
Action Status:	Continuing; in progress	
Report of Progress:	Updated after each flooding event	

Action Worksheet			
Name of Jurisdiction:	Taney County		
	Risk / Vulnerability		
Hazard(s) Addressed:	Flood		
Problem being Mitigated:	Poor maintenance of waterways leads to increased flooding		
	Action or Project		
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy		
Action/Project Number:	Taney County 2.6		
Name of Action or Project:	Waterway Maintenance		
Mitigation Category:	Prevention		
Action or Project Description:	Work with regulatory agencies to obtain appropriate permits to maintain waterways in order to reduce the impact of flooding.		
Estimated Cost:	\$1,000-\$10,000 per instance		
Benefits:	Helps reduce the impact and extent of flooding		
	Plan for Implementation		
Responsible Organization/Department:	Taney County Commission		
Supporting Organization/Department:	Taney County Emergency Management, Missouri DNR, USACE		
Action/Project Priority:	High; 36		
Timeline for Completion:	Continuous and ongoing as waterways refill with sediment		
Potential Fund Sources:	Federal grants		
Local Planning Mechanisms to be Used in Implementation, if any:			
	Progress Report		
Action Status:	Continuing; not started		
Report of Progress:	Difficult to obtain the permits from regulatory agencies to move forward		

	Action Worksheet	
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding Events	
Problem being Mitigated:	Critical infrastructure including a wastewater treatment plant is at risk for flooding and subsequent failure	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Branson 2.1	
Name of Action or Project:	Flood Mitigation	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Acquire, elevate or flood-proof properties and critical infrastructure within flood hazard areas	
Estimated Cost:	\$75 million	
Benefits:	Reduces risk of flood waters overtaking the treatment plant.	
	Plan for Implementation	
Responsible Organization/Department:	City Utilities Department	
Supporting Organization/Department:	City Finance Department	
Action/Project Priority:	38 – High Priority	
Timeline for Completion:	3 Years	
Potential Fund Sources:	Reduces risk of flood waters overtaking the treatment plant.	
Local Planning Mechanisms to be Used in Implementation, if any:	City Strategic Plan	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	City working on conceptual design and securing funding.	

	Action Worksheet	
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Severe Weather including thunderstorms, tornadoes, ice and snow events	
Problem being Mitigated:	Reduce risk to critical utility infrastructure caused by weather events that may affect electrical and communications services.	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Branson 2.2	
Name of Action or Project:	Utility Relocation	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Encourage utilities to relocate and/or place underground infrastructure.	
Estimated Cost:	\$100 million	
Benefits:	Desire is to relocate electric, cable, fiber and phone lines underground along a five mile stretch of 76 to reduce the risk of damage during severe weather events.	
	Plan for Implementation	
Responsible Organization/Department:	City Engineering Department.	
Supporting Organization/Department:	City Finance Department	
Action/Project Priority:	31 – High Priority	
Timeline for Completion:	5 Years	
Potential Fund Sources:	City Funds generated through a Community Improvement District tax	
Local Planning Mechanisms to be Used in Implementation, if any:	City Strategic Plan	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	A half-mile section has been completed	

Action Worksheet		
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding Events	
Problem being Mitigated:	Critical infrastructure including a wastewater treatment plant is at risk for flooding and subsequent failure	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Branson 2.3	
Name of Action or Project:	Wastewater Treatment Resilience	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Ensure that wastewater treatment systems will function during flood and drought events.	
Estimated Cost:	\$75 Million	
Benefits:	Reduces risk of flood waters overtaking the treatment plant.	
	Plan for Implementation	
Responsible Organization/Department:	City Utilities Department	
Supporting Organization/Department:	City Finance Department	
Action/Project Priority:	35 – High Priority	
Timeline for Completion:	3 Years	
Potential Fund Sources:	Reduces risk of flood waters overtaking the treatment plant.	
Local Planning Mechanisms to be Used in Implementation, if any:	City Strategic Plan	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	City working on conceptual design and securing funding.	

Action Worksheet			
Name of Jurisdiction:	City of Branson		
	Risk / Vulnerability		
Hazard(s) Addressed:	Flooding and Complete Dam Structure Failure		
Problem being Mitigated:	Risk of flooding downstream of the dam as well as structural failure.		
	Action or Project		
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy		
Action/Project Number:	City of Branson 2.4		
Name of Action or Project:	Dam Emergency Partnership		
Mitigation Category:	Education and Outreach, Emergency Services		
Action or Project Description:	Partner with and participate in dam emergency planning and exercises.		
Estimated Cost:	None		
Benefits:	Continuous training, exercises, and communications improves preparedness for citizen and businesses downstream.		
	Plan for Implementation		
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division		
Supporting Organization/Department:	Taney County Emergency Management and Corp of Engineers		
Action/Project Priority:	32 – High Priority		
Timeline for Completion:	Continuing in Progress		
Potential Fund Sources:	FEMA and Corp of Engineers		
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP, FD Goals and Objectives, Corp of Engineers training & exercise requirements.		
	Progress Report		
Action Status:	Continuing in Progress		
Report of Progress:	Annual training/community meeting held with stakeholders, tabletop & functional exercises completed, public education done.		

	Action Worksheet	
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Severe Weather, Fire	
Problem being Mitigated:	Maintain building and landscape codes to reduce risk.	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Branson 2.5	
Name of Action or Project:	Update Codes	
Mitigation Category:	Prevention	
Action or Project Description:	Adopt updated international codes and land use development policies, where applicable.	
Estimated Cost:	None	
Benefits:	Adopted model codes and local amended ordinances may reduce property losses and personal injury or death.	
	Plan for Implementation	
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division	
Supporting Organization/Department:	Branson Planning Department	
Action/Project Priority:	37 – High Priority	
Timeline for Completion:	Continuing in Progress	
Potential Fund Sources:	City Budget	
Local Planning Mechanisms to be Used in Implementation, if any:	City Strategic Plan	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	2018 ICC Model Codes Adopted	

Action Worksheet		
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding	
Problem being Mitigated:	Using NFIP programs, risk will be reduced of flooding properties	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Branson 2.6	
Name of Action or Project:	NFIP Requirement Enforcement	
Mitigation Category:	Prevention	
Action or Project Description:	Communities in Taney County that participate in NFIP will enforce floodplain management requirements, including regulating all new and substantially improved construction in the Special Flood Hazard Areas (SFHAs).	
Estimated Cost:	None	
Benefits:	Reduce risk of properties flooding – reduces risk of building in identified flood prone areas.	
	Plan for Implementation	
Responsible Organization/Department:	Floodplain Administrator	
Supporting Organization/Department:	Branson Fire Department – Emergency Management Division	
Action/Project Priority:	34 – High Priority	
Timeline for Completion:	Continuing in Progress	
Potential Fund Sources:	City Budget	
Local Planning Mechanisms to be Used in Implementation, if any:	City Strategic Plan, LEOP, NFIP, Floodplain Ordinance	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	All building permits reviewed in relationship to NFIP Standards.	

Action Worksheet		
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood	
Problem being Mitigated:	Address critical equipment and infrastructure that is with the flood plain or	
	potential of being flood impacted. Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Forsyth 2.1	
Name of Action or Project:	Flood Mitigation	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Acquire, elevate or flood-proof properties and critical infrastructure within flood hazard areas	
Estimated Cost:	\$100-\$100,000.	
Benefits:	Reduce damage to critical infrastructure.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Public Works	
Supporting Organization/Department:	Public Work s/City of Forsyth	
Action/Project Priority:	31	
Timeline for Completion:	2-4 years	
Potential Fund Sources:	FEMA/SEMA-LOCAL TAX Revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	FEMA, local Tax revenue	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	County raised one area of the road on Oremius Road that had been impacted in flooding in the past. Lift station at Shadowrock Park entrance was raised to prevent damage and release of Sewage.	
	Electronic controls on Outdoor Storm siren was raised to prevent from being impacted in a large event, and potential damage to the unit.	

Action Worksheet		
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	Impact from utility loss -hazard or hazards that will be addressed by this action (dam failure, drought, earthquake, extreme temperature, land subsidence/sinkholes, flooding, severe thunderstorms, tornado, wildfire, severe winter weather)	
Problem being Mitigated:	Current utilities are at high risk for several of the hazards that constantly take down the utility power.	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Forsyth 2.2	
Name of Action or Project:	Utility Relocation	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Encourage utilities to relocate and/or place underground infrastructure.	
Estimated Cost:	\$100-2.5 Million.	
Benefits:	By placing utilities underground, it reduces the impact that severe weather impacts on the system.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Public Works	
Supporting Organization/Department:	Liberty Electric	
Action/Project Priority:	35	
Timeline for Completion:	5-10 year plan	
Potential Fund Sources:	Grants and local Tax revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	comprehensive plan, capital improvement plan, school infrastructure plan, emergency operations plan, budgeting process, etc.	
Progress Report		
Action Status:	New,	
Report of Progress:	Lack of Funding	

	Action Worksheet		
Name of Jurisdiction:	City of Forsyth		
	Risk / Vulnerability		
Hazard(s) Addressed:	Dam failure		
Problem being Mitigated:	Lack of response and training in the event of a dam failure event		
	Action or Project		
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy		
Action/Project Number:	City of Forsyth 2.3		
Name of Action or Project:	Dam Emergency Partnership		
Mitigation Category:	Education and Outreach, Emergency Services		
Action or Project Description:	Partner with and participate in dam emergency planning and exercises.		
Estimated Cost:	\$0		
Benefits:	By providing and being part of the exercise and planning of the event reduces danger to life and properties. Involving other departments provide additional input into the plan and other concerns that might not have been brought up.		
	Plan for Implementation		
Responsible Organization/Department:	Forsyth Fire Department/EMD		
Supporting Organization/Department:	Utility – White River/ Liberty and Core of Engineers.		
Action/Project Priority:	44		
Timeline for Completion:	How many months/years to complete. An estimated range is acceptable (2-4 months, 1-2 years, etc.)		
Potential Fund Sources:	List specific funding sources that may be used to pay for the implementation of the action (FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA, EDA, etc.])		
Local Planning Mechanisms to be Used in Implementation, if any:	List any planning mechanisms that will be used in the implementation of this action (comprehensive plan, capital improvement plan, school infrastructure plan, emergency operations plan, budgeting process, etc.)		
Progress Report			
Action Status:	Continuing in Progress		
Report of Progress:	Lack of other department and agencies involvement in the planning and training.		

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Current codes did not meet current common building methods. And construction.	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Forsyth 2.4	
Name of Action or Project:	Update Codes	
Mitigation Category:	Prevention	
Action or Project Description:	Adopt updated international codes and land use development policies, where applicable.	
Estimated Cost:	\$3000	
Benefits:	Reduce property damage and increase Life safety to the Community.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Building Department-Forsyth Building Inspector	
Supporting Organization/Department:	City of Forsyth	
Action/Project Priority:	39	
Timeline for Completion:	1-2 YEARS	
Potential Fund Sources:	Local Tax Revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	(Comprehensive plan budgeting process, etc.)	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Updated to the 2021 codes as of 01/01/2022. Impact of additional cost to the builders to meet code requirements.	

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding	
Problem being Mitigated:	Lack of oversight on the potential impact of flooding caused by run-off.	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Forsyth 2.5	
Name of Action or Project:	Runoff Ordinance Enforcement	
Mitigation Category:	Prevention	
Action or Project Description:	Enforce measures to control runoff from developing areas outside the floodplain where ordinances have not been enacted.	
Estimated Cost:	\$0	
Benefits:	Reduce the potential damage from run off to properties.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Building Department. Building Inspector	
Supporting Organization/Department:	City of Forsyth, County	
Action/Project Priority:	33	
Timeline for Completion:	5-10 Years	
Potential Fund Sources:	Grants, Local Revenue and Developmental Cost.	
Local Planning Mechanisms to be Used in Implementation, if any:	City Comprehensive Plan	
Progress Report		
Action Status:	Continuing Not Started,	
Report of Progress:	Lack of Enforcement and Funding	

Action Worksheet		
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	flooding,	
Problem being Mitigated:	Work with regulatory agencies to obtain appropriate permits to maintain waterways in order to reduce the impact of flooding.	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Forsyth 2.6	
Name of Action or Project:	Waterway Maintenance	
Mitigation Category:	Prevention	
Action or Project Description:	Work with regulatory agencies to obtain appropriate permits to maintain waterways in order to reduce the impact of flooding.	
Estimated Cost:	\$0	
Benefits:	Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Building Department / Building Inspector.	
Supporting Organization/Department:	County	
Action/Project Priority:	29	
Timeline for Completion:	5-10 Years	
Potential Fund Sources:	Grants, Local Contractors and Local Tax revenue.	
Local Planning Mechanisms to be Used in Implementation, if any:	Local Plan, City Comprehensive Plan	
Progress Report		
Action Status:	New,	
Report of Progress:	Lack of Funding and support	

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	wildfire	
Problem being Mitigated:	Increase in population and increase of Fire dangers due to Wildland Fire.	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Forsyth 2.7	
Name of Action or Project:	Wildfire Risk Assessment	
Mitigation Category:	Emergency Services	
Action or Project Description:	implement the Community Wildfire Risk Assessment Program (Mo Dept of Conservation)	
Estimated Cost:	\$500-1000	
Benefits:	By providing a plan, working with homeowners and business to reduce the potential Wildland Fire –saving property and increasing life safety.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department-EMD. –Fire Chief	
Supporting Organization/Department:	MDC, Community partners	
Action/Project Priority:	46	
Timeline for Completion:	1-2 Years	
Potential Fund Sources:	MDC, Local Tax Revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	Fire Plan	
Progress Report		
Action Status:	New,	
Report of Progress:	Community Outreach	

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	wildfire	
Problem being Mitigated:	No safe or updated response vehicle –current vehicle is 37 years old.	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Forsyth 2.8	
Name of Action or Project:	Wildfire response	
Mitigation Category:	Emergency Services	
Action or Project Description:	enhance wildfire response by replacing response vehicles (brush trucks)	
Estimated Cost:	\$20,000-\$50,000	
Benefits:	Provide and updated and current standard Response vehicle to for Wild Land Fire Fighting operations.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department-Fire Chief	
Supporting Organization/Department:	City of Forsyth, MDC	
Action/Project Priority:	44	
Timeline for Completion:	2-4 Years	
Potential Fund Sources:	MDC, Local Revenue Tax	
Local Planning Mechanisms to be Used in Implementation, if any:	Budgeting process	
Progress Report		
Action Status:	New	
Report of Progress:	Lack of Funding	

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	wildfire	
Problem being Mitigated:	Not enough personal for safe operations of Wild Land Firefighting.	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Forsyth 2.9	
Name of Action or Project:	Firefighter Personnel	
Mitigation Category:	Emergency Services	
Action or Project Description:	increase firefighter personnel for response to wildland fires and general fire department response.	
Estimated Cost:	\$50,000-\$100,000 a year	
Benefits:	Provide additional trained personal for Wild Land Fire Fighting	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department-Fire Chief	
Supporting Organization/Department:	City of Forsyth	
Action/Project Priority:	41	
Timeline for Completion:	5-10 Years	
Potential Fund Sources:	MDC, USDA, FEMA, Local Tax	
Local Planning Mechanisms to be Used in Implementation, if any:	Budget process	
Progress Report		
Action Status:	New	
Report of Progress:	Lack of interested personal and lack of funding	

	Action Worksheet
Name of Jurisdiction:	City of Hollister
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Damage to property during high water events
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	City of Hollister 2.1
Name of Action or Project:	Flood Mitigation
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	Acquire, elevate or flood-proof properties and critical infrastructure within flood hazard areas
Estimated Cost:	\$10,000 - \$15,000
Benefits:	Prevent property damage or loss of life
	Plan for Implementation
Responsible Organization/Department:	COH – Building Official
Supporting Organization/Department:	COH – Executive Dept. and Public Works Director
Action/Project Priority:	31
Timeline for Completion:	Ongoing
Potential Fund Sources:	Local Tax Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	Capital Improvements Plan and Budgeting process
	Progress Report
Action Status:	Continuing in Progress
Report of Progress:	Continue to acquire flood prone property

	Action Worksheet
Name of Jurisdiction:	City of Hollister
	Risk / Vulnerability
Hazard(s) Addressed:	All hazards
Problem being Mitigated:	Damage to utilities and loss of service
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	City of Hollister 2.2
Name of Action or Project:	Utility Relocation
Mitigation Category:	Education and Outreach
Action or Project Description:	Encourage utilities to relocate and/or place underground infrastructure.
Estimated Cost:	Expense unknown
Benefits:	Decrease in loss of service and damage to utility infrastructure.
	Plan for Implementation
Responsible Organization/Department:	COH – Building Official & Public Works Director
Supporting Organization/Department:	Local utility providers
Action/Project Priority:	25
Timeline for Completion:	Ongoing
Potential Fund Sources:	Combination of Local Tax Revenue & Public Utilities
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive Plan
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Slow and steady

	Action Worksheet	
Name of Jurisdiction:	City of Hollister	
	Risk / Vulnerability	
Hazard(s) Addressed:	Drought and flooding	
Problem being Mitigated:	Prevention downtime at the Wastewater plant	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Hollister 2.3	
Name of Action or Project:	Wastewater Treatment Resilience	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Ensure that wastewater treatment systems will function during flood and drought events.	
Estimated Cost:	Project dependent	
Benefits:	Decrease environmental contamination and disrupt of service to customers.	
	Plan for Implementation	
Responsible Organization/Department:	COH – Public Works Director	
Supporting Organization/Department:	COH – Executive Dept.	
Action/Project Priority:	28	
Timeline for Completion:	Ongoing as needed	
Potential Fund Sources:	Local Tax Revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	Capital Improvement Plan & Emergency Operations Plan	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Continued training and education of staff.	

	Action Worksheet	
Name of Jurisdiction:	City of Hollister	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Prevent property damage and/or loss of life.	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Hollister 2.4	
Name of Action or Project:	Update Codes	
Mitigation Category:	Prevention	
Action or Project Description:	Adopt updated international codes and land use development policies, where applicable.	
Estimated Cost:	\$2000 - \$5000	
Benefits:	Prevent property damage and/or loss of life.	
	Plan for Implementation	
Responsible Organization/Department:	COH – Building Official	
Supporting Organization/Department:	COH – All Departments	
Action/Project Priority:	31	
Timeline for Completion:	All codes adopted every 6 years	
Potential Fund Sources:	Local Tax Revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	Use of Planning Commission, Budgeting Process, and Elected Officials.	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Code last updated to 2018, education continues.	

Action Worksheet		
Name of Jurisdiction:	City of Hollister	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding	
Problem being Mitigated:	Decrease in property damage	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Hollister 2.5	
Name of Action or Project:	NFIP Requirement Enforcement	
Mitigation Category:	Prevention	
Action or Project Description:	Communities in Taney County that participate in NFIP will enforce floodplain management requirements, including regulating all new and substantially improved construction in the Special Flood Hazard Areas (SFHAs).	
Estimated Cost:	0.00	
Benefits:	Decrease property damage and economic loss	
	Plan for Implementation	
Responsible Organization/Department:	Floodplain Administrator	
Supporting Organization/Department:	COH – Executive Dept.	
Action/Project Priority:	31	
Timeline for Completion:	Ongoing	
Potential Fund Sources:		
Local Planning Mechanisms to be Used in Implementation, if any:	Floodplain Ordinance	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	Continuing education of NFIP	

	Action Worksheet
Name of Jurisdiction:	City of Merriam Woods
	Risk / Vulnerability
Hazard(s) Addressed:	Flood
Problem being Mitigated:	Flood damage to properties and infrastructure
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	City of Merriam Woods 2.1
Name of Action or Project:	Flood Mitigation
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	Acquire, elevate or flood-proof properties and critical infrastructure within flood hazard areas
Estimated Cost:	\$10,000-\$100,000
Benefits:	Reduces risk of flood damage to properties and infrastructure
	Plan for Implementation
Responsible Organization/Department:	Utilities
Supporting Organization/Department:	Public Works
Action/Project Priority:	14 Low
Timeline for Completion:	1-5yrs
Potential Fund Sources:	Mitigation grants
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continuing Not Started,
Report of Progress:	Continued not started due to employee changes

	Action Worksheet
Name of Jurisdiction:	City of Merriam Woods
	Risk / Vulnerability
Hazard(s) Addressed:	Tornado, Thunderstorms, Winter
Problem being Mitigated:	Exposure of utilities to natural hazards
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	City of Merriam Woods 2.2
Name of Action or Project:	Utility Relocation
Mitigation Category:	Education and Outreach
Action or Project Description:	Encourage utilities to relocate and/or place underground infrastructure.
Estimated Cost:	\$0-\$500
Benefits:	Protects vulnerable utilities from natural hazards
	Plan for Implementation
Responsible Organization/Department:	Planning and Zoning
Supporting Organization/Department:	Planning and Zoning
Action/Project Priority:	35 High
Timeline for Completion:	5+ Years
Potential Fund Sources:	Grants, general Funds
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continued
Report of Progress:	Continued not started due to employee changes

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	Dam failure	
Problem being Mitigated:	Lack of Preparedness for dam failure	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Merriam Woods 2.3	
Name of Action or Project:	Dam Emergency Partnership	
Mitigation Category:	Education and Outreach, Emergency Services	
Action or Project Description:	Partner with and participate in dam emergency planning and exercises.	
Estimated Cost:	n/a	
Benefits:	Helps county be prepared for dam failure	
	Plan for Implementation	
Responsible Organization/Department:	Police and Fire Department	
Supporting Organization/Department:	Fire Department	
Action/Project Priority:	24 low	
Timeline for Completion:	5 + years	
Potential Fund Sources:	N/A	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Continuing due to Police Chief leaving.	

	Action Worksheet
Name of Jurisdiction:	City of Merriam Woods
Risk / Vulnerability	
Hazard(s) Addressed:	Tornado thunderstorms flood winter earthquake dam failure wildfire and sink hole
Problem being Mitigated:	Poor land use can lead to greater damage in hazard events
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	City of Merriam Woods 2.4
Name of Action or Project:	Update Codes
Mitigation Category:	Prevention
Action or Project Description:	Adopt updated international codes and land use development policies, where applicable.
Estimated Cost:	N/A
Benefits:	Decreases the exposure of buildings to hazard events
	Plan for Implementation
Responsible Organization/Department:	Building Inspector
Supporting Organization/Department:	Board of Alderman
Action/Project Priority:	32 High
Timeline for Completion:	On going
Potential Fund Sources:	General Funds
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Continuing in Progress

	Action Worksheet
Name of Jurisdiction:	City of Merriam Woods
	Risk / Vulnerability
Hazard(s) Addressed:	Thunderstorm, Flood
Problem being Mitigated:	Extra Run off can exacerbate flash flooding.
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	City of Merriam Woods 2.5
Name of Action or Project:	Runoff Ordinance Enforcement
Mitigation Category:	Prevention
Action or Project Description:	Enforce measures to control runoff from developing areas outside the floodplain where ordinances have not been enacted.
Estimated Cost:	N/A
Benefits:	Helps reduce levels of flash flooding
	Plan for Implementation
Responsible Organization/Department:	City Administration
Supporting Organization/Department:	Police department
Action/Project Priority:	24 Low
Timeline for Completion:	1-5 years
Potential Fund Sources:	General Funds
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continuing going
Report of Progress:	Continuing but due to lack of employment time

	Action Worksheet		
Name of Jurisdiction:	City of Merriam Woods		
	Risk / Vulnerability		
Hazard(s) Addressed:	Flood		
Problem being Mitigated:	Exposure of structures to flooding		
	Action or Project		
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy		
Action/Project Number:	City of Merriam Woods 2.6		
Name of Action or Project:	NFIP Requirement Enforcement		
Mitigation Category:	Prevention		
Action or Project Description:	Communities in Taney County that participate in NFIP will enforce floodplain management requirements, including regulating all new and substantially improved construction in the Special Flood Hazard Areas (SFHAs).		
Estimated Cost:	N/A		
Benefits:	Mitigates the damage to structures in flooding events		
	Plan for Implementation		
Responsible Organization/Department:	Floodplain Administrator		
Supporting Organization/Department:	Planning and Zoning		
Action/Project Priority:	28 Medium		
Timeline for Completion:	On-going		
Potential Fund Sources:	General Funds		
Local Planning Mechanisms to be Used in Implementation, if any:	Floodplain Ordinance		
Progress Report			
Action Status:	Continuing		
Report of Progress:	Continuing not started due to lack of employees		

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	flood	
Problem being Mitigated:	Poor maintenance	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Merriam Woods 2.7	
Name of Action or Project:	Waterway Maintenance	
Mitigation Category:	Prevention	
Action or Project Description:	Work with regulatory agencies to obtain appropriate permits to maintain waterways in order to reduce the impact of flooding.	
Estimated Cost:	\$1000-\$10,000	
Benefits:	Helps reduce the impact and extent of flooding	
	Plan for Implementation	
Responsible Organization/Department:	Board of Alderman	
Supporting Organization/Department:	Board of Alderman	
Action/Project Priority:	Work with regulatory	
Timeline for Completion:	On-going	
Potential Fund Sources:	General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	New	
Report of Progress:	N/A	

	Action Worksheet	
Name of Jurisdiction:	City of Rockaway Beach	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding	
Problem being Mitigated:	Flooding	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Rockaway Beach 2.1	
Name of Action or Project:	Flood Mitigation	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Acquire, elevate or flood-proof properties and critical infrastructure within flood hazard areas	
Estimated Cost:	5 million	
Benefits:	Reduce the risk of flood damage to properties and infrastructure	
	Plan for Implementation	
Responsible Organization/Department:	Building Inspector, City	
Supporting Organization/Department:	Which organization/department will assist in implementation of this action?	
Action/Project Priority:	43	
Timeline for Completion:	5+ years	
Potential Fund Sources:	Grants	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continuing	
Report of Progress:	No Flood Zone Building, Adding drainage ditches.	

	Action Worksheet	
Name of Jurisdiction:	City of Rockaway Beach	
	Risk / Vulnerability	
Hazard(s) Addressed:	Earthquake, thunderstorm, tornado, wildfire	
Problem being Mitigated:	Poor land use practices can lead to greater damage in hazard events	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	City of Rockaway Beach 2.2	
Name of Action or Project:	Update Codes	
Mitigation Category:	Prevention	
Action or Project Description:	Adopt updated international codes and land use development policies, where applicable.	
Estimated Cost:	200.00 annually	
Benefits:	Decreases the exposure of buildings to hazard events.	
	Plan for Implementation	
Responsible Organization/Department:	Alderman, City Clerk, Building Inspector	
Supporting Organization/Department:	Which organization/department will assist in implementation of this action?	
Action/Project Priority:	38	
Timeline for Completion:	2-3 years	
Potential Fund Sources:	General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continuing	
Report of Progress:	N/A	

Action Worksheet	
Name of Jurisdiction:	City of Rockaway Beach
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Flood, Thunderstorms
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	City of Rockaway Beach 2.3
Name of Action or Project:	NFIP Requirement Enforcement
Mitigation Category:	Prevention
Action or Project Description:	Communities in Taney County that participate in NFIP will enforce floodplain management requirements, including regulating all new and substantially improved construction in the Special Flood Hazard Areas (SFHAs).
Estimated Cost:	unknown
Benefits:	Mitigates the damage to structures in flooding events
	Plan for Implementation
Responsible Organization/Department:	Floodplain Administrator
Supporting Organization/Department:	City Clerk
Action/Project Priority:	43
Timeline for Completion:	4+ years
Potential Fund Sources:	Grants
Local Planning Mechanisms to be Used in Implementation, if any:	Floodplain Ordinance
Progress Report	
Action Status:	Continuing,
Report of Progress:	N/A

	Action Worksheet	
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood Damage	
Problem being Mitigated:	Loss of property and life	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	Village of Bull Creek 2.1	
Name of Action or Project:	Flood Mitigation	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	Acquire, elevate or flood-proof properties and critical infrastructure within flood hazard areas	
Estimated Cost:	unknown	
Benefits:	Prevent loss of property and life	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:		
Action/Project Priority:	27	
Timeline for Completion:	4 years	
Potential Fund Sources:	grants	
Local Planning Mechanisms to be Used in Implementation, if any:	Hazard Mitigation Plan	
	Progress Report	
Action Status:	New	
Report of Progress:	Staffing, funding	

Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood Damage	
Problem being Mitigated:	Loss of property	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	Village of Bull Creek 2.2	
Name of Action or Project:	NFIP Requirement Enforcement	
Mitigation Category:	Prevention	
Action or Project Description:	Communities in Taney County that participate in NFIP will enforce floodplain management requirements, including regulating all new and substantially improved construction in the Special Flood Hazard Areas (SFHAs).	
Estimated Cost:	1000.00	
Benefits:	Prevent property loss	
	Plan for Implementation	
Responsible Organization/Department:	Floodplain Administrator	
Supporting Organization/Department:	Taney County, SEMA, FEMA	
Action/Project Priority:	32	
Timeline for Completion:	3 years	
Potential Fund Sources:	General Fund	
Local Planning Mechanisms to be Used in Implementation, if any:	Building Codes, Floodplain Ordinance	
Progress Report		
Action Status:	Continuing	
Report of Progress:	As new places move in, we require Rise Certificate	

Action Worksheet	
Name of Jurisdiction:	Village of Bull Creek
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Flooding
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	Village of Bull Creek 2.3
Name of Action or Project:	Waterway maintenance
Mitigation Category:	Prevention
Action or Project Description:	work with regulatory agencies to obtain appropriate permits to maintain waterways in order to reduce the impact of flooding
Estimated Cost:	25,000
Benefits:	Reduce flooding in the Village
	Plan for Implementation
Responsible Organization/Department:	Bull Creek Village Board of Trustees
Supporting Organization/Department:	SMCOG
Action/Project Priority:	33
Timeline for Completion:	5 years
Potential Fund Sources:	grants
Local Planning Mechanisms to be Used in Implementation, if any:	DNR Compliance
Progress Report	
Action Status:	New
Report of Progress:	Need to look into funding sources

Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding	
Problem being Mitigated:	Flood damage	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	Village of Bull Creek 2.4	
Name of Action or Project:	Vegetation Maintenance	
Mitigation Category:	Prevention	
Action or Project Description:	enhance strategies and coordinate with utility providers to manage encroachment of vegetation in easements and rights of way	
Estimated Cost:	10,000	
Benefits:	Reduce flooding in the Village	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	DNR	
Action/Project Priority:	29	
Timeline for Completion:	4 years	
Potential Fund Sources:	Grants, General Fund	
Local Planning Mechanisms to be Used in Implementation, if any:	DNR Compliance	
Progress Report		
Action Status:	New	
Report of Progress:	Need to look into funding sources	

Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Erosion, Flooding	
Problem being Mitigated:	Damage due to erosion and flooding	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	Village of Bull Creek 2.5	
Name of Action or Project:	Streambank restoration	
Mitigation Category:	Natural Systems Protection	
Action or Project Description:	enhance and repair streambanks and riparian buffers to help decrease streambank erosion and flood control	
Estimated Cost:	100,000	
Benefits:	Help prevent erosion which leads to flooding	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	DNR	
Action/Project Priority:	30	
Timeline for Completion:	5 years	
Potential Fund Sources:	Grants	
Local Planning Mechanisms to be Used in Implementation, if any:		
	Progress Report	
Action Status:	New	
Report of Progress:	Large project, need to look into funding, Engineering	

Action Worksheet		
Name of Jurisdiction:	Forsyth R-III School District	
Risk / Vulnerability		
Hazard(s) Addressed:	Flooding, dam failure	
Problem being Mitigated:	Damage to facilities caused by flooding and dam failure	
Action or Project		
Applicable Goal Statement:	Goal 2	
Action/Project Number:	Forsyth R-III School District 2.1	
Name of Action or Project:	Dam Emergency Partnership	
Mitigation Category:	Education and Outreach	
Action or Project Description:	partner with and participate in dam emergency planning and exercise	
Estimated Cost:	Can be completed with current budget	
Benefits:	Better communications between school district and dam managers	
	Plan for Implementation	
Responsible Organization/Department:	District Administration	
Supporting Organization/Department:	Operations	
Action/Project Priority:	36	
Timeline for Completion:	Less than a year	
Potential Fund Sources:	Local funds	
Local Planning Mechanisms to be Used in Implementation, if any:	Budget process, emergency operations plan, school crisis plan	
Progress Report		
Action Status:	Continue	
Report of Progress:	We need to contact liberty utilities to find out if they would be interested in a partnership	

Action Worksheet	
Name of Jurisdiction:	Kirbyville R-VI School District
	Risk / Vulnerability
Hazard(s) Addressed:	Dam Failure
Problem being Mitigated:	Lack of preparedness for dam failure event
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	Kirbyville R-VI School District 2.1
Name of Action or Project:	Dam Emergency Partnership
Mitigation Category:	Education and Outreach, Emergency Services
Action or Project Description:	Partner with and participate in dam emergency planning and exercises.
Estimated Cost:	No Identified costs
Benefits:	Helps the county be prepared for a dam failure event.
	Plan for Implementation
Responsible Organization/Department:	Corps of Engineers and Taney County emergency management office
Supporting Organization/Department:	Kirbyville R-VI School District
Action/Project Priority:	32 / H
Timeline for Completion:	1-3 years
Potential Fund Sources:	FEMA grants/ Corps of Engineers
Local Planning Mechanisms to be Used in Implementation, if any:	Corps/WRVEC/Liberty/Taney County
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	No progress recorded

Action Worksheet	
Name of Jurisdiction:	Taney County Regional Sewer District
	Risk / Vulnerability
Hazard(s) Addressed:	Dam failure, flooding, drought
Problem being Mitigated:	Equipment malfunctions and loss of power during droughts and floods
	Action or Project
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy
Action/Project Number:	Taney County Regional Sewer District 2.1
Name of Action or Project:	Wastewater Treatment Resilience
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	Ensure that wastewater treatment systems will function during flood and drought events by purchasing backup generators
Estimated Cost:	\$100,000-\$300,000
Benefits:	Prevent loss of equipment and functionality during extreme weather
	Plan for Implementation
Responsible Organization/Department:	Taney County
Supporting Organization/Department:	
Action/Project Priority:	35
Timeline for Completion:	1-2 years
Potential Fund Sources:	HMGP, BRIC
Local Planning Mechanisms to be Used in Implementation, if any:	Budget process
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Continued maintenance and upgrades on equipment

	Action Worksheet	
Name of Jurisdiction:	Taney County Regional Sewer District	
Risk / Vulnerability		
Hazard(s) Addressed:	Dam failure	
Problem being Mitigated:	Failure of Dam structure and impact	
	Action or Project	
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy	
Action/Project Number:	Taney County Regional Sewer District 2.2	
Name of Action or Project:	Dam Emergency Partnership	
Mitigation Category:	Education and Outreach, Emergency Services	
Action or Project Description:	Partner with and participate in dam emergency planning and exercises.	
Estimated Cost:	N/A	
Benefits:	Help prevent loss of equipment and loss of life	
	Plan for Implementation	
Responsible Organization/Department:	Administration	
Supporting Organization/Department:	Administrative Office	
Action/Project Priority:	45	
Timeline for Completion:	Ongoing	
Potential Fund Sources:	N/A	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	Continued partnering with Dam Emergency Services	

Action Worksheet			
Name of Jurisdiction:	Western Taney County Fire Protection District		
	Risk / Vulnerability		
Hazard(s) Addressed:	Dam failure		
Problem being Mitigated:	Lack of preparedness for dam failure events		
	Action or Project		
Applicable Goal Statement:	Goal 2: Reduce the potential impact of natural disasters to property, infrastructure, and the local economy		
Action/Project Number:	Western Taney County Fire Protection District 2.1		
Name of Action or Project:	Dam Emergency Partnership		
Mitigation Category:	Education and Outreach, Emergency Services		
Action or Project Description:	Partner with and participate in dam emergency planning and exercises.		
Estimated Cost:	\$1000 in staff time		
Benefits:	Helps the county be prepared for a dam failure event		
	Plan for Implementation		
Responsible Organization/Department:	Fire District Administration		
Supporting Organization/Department:			
Action/Project Priority:	High; 41		
Timeline for Completion:	Continuous		
Potential Fund Sources:	General funds		
Local Planning Mechanisms to be Used in Implementation, if any:			
Progress Report			
Action Status:	Continuing; in progress		
Report of Progress:	Participate in planning sessions and exercise with dam owner/operators to be better prepared.		

Goal 3: Ensure continued operation of government, emergency functions and critical infrastructure in a disaster

Action Worksheet		
Name of Jurisdiction:	Taney County	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Not all municipal and county officials have received NIMS Training	
Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Taney County 3.1	
Name of Action or Project:	NIMS Training	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.	
Estimated Cost:	\$10,000	
Benefits:	Training for officials will improve response to hazard events	
	Plan for Implementation	
Responsible Organization/Department:	Taney County Emergency Management	
Supporting Organization/Department:		
Action/Project Priority:	High; 34	
Timeline for Completion:	Continuing	
Potential Fund Sources:	State Training Budget; county funds	
Local Planning Mechanisms to be Used in Implementation, if any:	NIMS Resolutions	
	Progress Report	
Action Status:	Continuing in progress	
Report of Progress:	Encourage NIMS training to public officials, provide local training options.	

Action Worksheet			
Name of Jurisdiction:	Taney County		
	Risk / Vulnerability		
Hazard(s) Addressed:	All Hazards		
Problem being Mitigated:	Poor 911 addressing makes emergency response difficult		
	Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	Taney County 3.2		
Name of Action or Project:	911 Addressing		
Mitigation Category:	Education and Outreach		
Action or Project Description:	Educate the public on the importance of and enforce visible 911 addressing.		
Estimated Cost:	\$10,000+		
Benefits:	Improved emergency response during and after hazard events with improved 911 addressing at locations.		
Plan for Implementation			
Responsible Organization/Department:	Taney County 911 Administration		
Supporting Organization/Department:	Taney County Planning & Zoning, Taney County Public Safety Agencies		
Action/Project Priority:	High; 46		
Timeline for Completion:	Continuous		
Potential Fund Sources:	General county Funds		
Local Planning Mechanisms to be Used in Implementation, if any:	County Ordinance		
Progress Report			
Action Status:	Continuing; in progress		
Report of Progress:	Taney County 911 provides addressing for landowners and informs of the importance of visible addresses. Fire departments reaffirm the importance of visible addresses during inspections.		

Action Worksheet		
Name of Jurisdiction:	Taney County	
	Risk / Vulnerability	
Hazard(s) Addressed:	Tornado, Severe Storm, Winter Weather, Earthquake, Dam Failure	
Problem being Mitigated:	Searching for adequate locations to dispose of debris after a hazardous event.	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Taney County 3.3	
Name of Action or Project:	Debris Disposal	
Mitigation Category:	Emergency Services	
Action or Project Description:	Identify debris disposal and burning locations in community to facilitate recovery from large scale hazard events	
Estimated Cost:	n/a	
Benefits:	Recover from hazards will be aided by pre-identifying debris disposal locations.	
	Plan for Implementation	
Responsible Organization/Department:	Taney County Road & Bridge	
Supporting Organization/Department:	Taney County Emergency Management, Taney County Commission	
Action/Project Priority:	High; 31	
Timeline for Completion:	2 years	
Potential Fund Sources:	n/a/	
Local Planning Mechanisms to be Used in Implementation, if any:	N/a	
	Progress Report	
Action Status:	Continuing, not started	
Report of Progress:	Change of administration over previously identified locations	

Action Worksheet		
Name of Jurisdiction:	Taney County	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Lack of hazard mitigation principles in city and county plans	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Taney County 3.4	
Name of Action or Project:	Hazard Mitigation in Plans	
Mitigation Category:	Prevention	
Action or Project Description:	Integrate hazard mitigation into comprehensive plans and storm water management policies.	
Estimated Cost:	\$0-\$500	
Benefits:	Plans will include hazard mitigation principles, improving resilience to hazard events.	
	Plan for Implementation	
Responsible Organization/Department:	Taney County Planning & Zoning	
Supporting Organization/Department:	Taney County Emergency Management	
Action/Project Priority:	High; 37	
Timeline for Completion:	1-5 years	
Potential Fund Sources:	County funds	
Local Planning Mechanisms to be Used in Implementation, if any:	Development of guidance code; NFIP enforcement	
	Progress Report	
Action Status:	Continuous	
Report of Progress:	Updated/integrated as plans are updated	

Action Worksheet		
Name of Jurisdiction:	Taney County	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Lack of funding for hazard mitigation projects	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Taney County 3.5	
Name of Action or Project:	Funding Identification	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities	
Estimated Cost:	Absorbed by existing staff costs	
Benefits:	Increased opportunities for funding of hazard mitigation activities	
	Plan for Implementation	
Responsible Organization/Department:	Taney County Grants Oversight	
Supporting Organization/Department:	Taney County Emergency Management	
Action/Project Priority:	High; 37	
Timeline for Completion:	Continuous	
Potential Fund Sources:	County funds	
Local Planning Mechanisms to be Used in Implementation, if any:	n/a	
	Progress Report	
Action Status:	Continuing- in progress	
Report of Progress:	Constantly updating available grants and identifying projects that are eligible	

Action Worksheet			
Name of Jurisdiction:	Taney County		
	Risk / Vulnerability		
Hazard(s) Addressed:	Flood		
Problem being Mitigated:	Poor coordination about infrastructure development can lead to flood damage		
	Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	Taney County 3.6		
Name of Action or Project:	Infrastructure Coordination		
Mitigation Category:	Education and Outreach		
Action or Project Description:	Continue coordination to promote infrastructure development practices that reduce damage from flooding		
Estimated Cost:	\$1000		
Benefits:	Better infrastructure development will decrease damage during flooding events		
	Plan for Implementation		
Responsible Organization/Department:	Taney County Commission & Taney County Emergency Management		
Supporting Organization/Department:			
Action/Project Priority:	High; 44		
Timeline for Completion:	Continuous		
Potential Fund Sources:	General funds/grants		
Local Planning Mechanisms to be Used in Implementation, if any:			
	Progress Report		
Action Status:	Continuing; in progress		
Report of Progress:			

	Action Worksheet		
Name of Jurisdiction:	Taney County		
	Risk / Vulnerability		
Hazard(s) Addressed:	All Hazards		
Problem being Mitigated:	Lack of data for decision making and facilities management		
Action or Project			
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	Taney County 3.7		
Name of Action or Project:	GIS Development		
Mitigation Category:	Prevention, Education and Outreach		
Action or Project Description:	Continue development of Geographic Information Systems (GIS) to further identify, analyze, and map hazard prone areas to enhance decision making and facilities management.		
Estimated Cost:	\$30,000		
Benefits:	More and better data will help with mitigation-related decision making		
	Plan for Implementation		
Responsible Organization/Department:	Taney County Information Systems		
Supporting Organization/Department:	Taney County Emergency Management/ Taney County Planning & Zoning		
Action/Project Priority:	High; 40		
Timeline for Completion:	Continuous		
Potential Fund Sources:	County funds		
Local Planning Mechanisms to be Used in Implementation, if any:			
Progress Report			
Action Status:	Continuing- In progress		
Report of Progress:	Work closely with IS department after each event to update data to build a better picture of affected areas and where to implement mitigation strategies.		

Action Worksheet	
Name of Jurisdiction:	City of Branson
	Risk / Vulnerability
Hazard(s) Addressed:	All Hazards
Problem being Mitigated:	Provide NIMS Training for efficient and effective operations during emergency incidents
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	City of Branson 3.1
Name of Action or Project:	NIMS Training
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.
Estimated Cost:	\$1,200 annually
Benefits:	City personnel and stakeholders trained to current NIMS standards – including new personnel and sustainment for existing.
	Plan for Implementation
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division
Supporting Organization/Department:	SEMA
Action/Project Priority:	27 – Medium Priority
Timeline for Completion:	Continuing in Progress
Potential Fund Sources:	City Budget and SEMA Funding
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP, City Policy
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	NIMS Training has been provided for new and existing employees, city board of aldermen plus sustainment training and exercises.

	Action Worksheet	
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	9-1-1 Addressing for property identification	
Problem being Mitigated:	Ensure property 9-1-1 Addressing for efficient response by emergency personnel.	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Branson 3.2	
Name of Action or Project:	911 Addressing	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Educate the public on the importance of and enforce visible 911 addressing.	
Estimated Cost:	None	
Benefits:	Ensure property 9-1-1 Addressing for efficient response by emergency personnel resulting in reduced risk for citizens and property.	
Plan for Implementation		
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division	
Supporting Organization/Department:	Branson Police Dept., GIS Department, Code Enforcement	
Action/Project Priority:	31 – High Priority	
Timeline for Completion:	Continuing in Progress	
Potential Fund Sources:	None	
Local Planning Mechanisms to be Used in Implementation, if any:	City Code	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Public education outreach done throughout the year plus on-site risk reduction inspections on properties.	

Action Worksheet	
Name of Jurisdiction:	City of Branson
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Provide swift water and rescue boat operations during flood events.
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	City of Branson 3.3
Name of Action or Project:	Water Rescue
Mitigation Category:	Emergency Services
Action or Project Description:	Enhance water rescue capabilities.
Estimated Cost:	\$6,000 annually
Benefits:	Reduce risk of personal injury for those caught in flood water.
	Plan for Implementation
Responsible Organization/Department:	Branson Fire Rescue
Supporting Organization/Department:	
Action/Project Priority:	29 – Medium Priority
Timeline for Completion:	Continuing in Progress
Potential Fund Sources:	City Budget, Donations
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP, Standard Operating Procedures, City Strategic Plan
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Funding secured through a donation to fund the training and equipping of 14 FD personnel including the purchase of a water rescue boat.

Action Worksheet		
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Severe Weather and Flooding	
Problem being Mitigated:	The city lacks a plan and location for debris management to meet FEMA guidelines	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Branson 3.4	
Name of Action or Project:	Debris Disposal	
Mitigation Category:	Emergency Services	
Action or Project Description:	Identify debris disposal and burning locations in community to facilitate recovery from large scale hazard events	
Estimated Cost:	Undetermined	
Benefits:	The benefit is to have pre-planned debris management plans and disposal locations to meet FEMA guidelines to improve fund recovery during disasters.	
	Plan for Implementation	
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division	
Supporting Organization/Department:	Branson Engineering Dept.	
Action/Project Priority:	28 – Medium Priority	
Timeline for Completion:	Continuing in Progress	
Potential Fund Sources:	SEMA, FEMA	
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	One site has been identified at the Meadows Treatment Plant Facility on Fall Creek Road.	

Action Worksheet			
Name of Jurisdiction:	City of Branson		
	Risk / Vulnerability		
Hazard(s) Addressed:	Flooding		
Problem being Mitigated:	Branson is working to meet storm water management requirements for a city of its size as mandated.		
	Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	City of Branson 3.5		
Name of Action or Project:	Hazard Mitigation in Plans		
Mitigation Category:	Prevention		
Action or Project Description:	Integrate hazard mitigation into comprehensive plans and storm water management policies.		
Estimated Cost:	Undetermined		
Benefits:	Reduce risk of flooding through the installation of new storm water management infrastructure.		
	Plan for Implementation		
Responsible Organization/Department:	City Engineering Department		
Supporting Organization/Department:	City Planning Department		
Action/Project Priority:	31 – High Priority		
Timeline for Completion:	Continuing in Progress		
Potential Fund Sources:	City funding		
Local Planning Mechanisms to be Used in Implementation, if any:	City Strategic Plan		
Progress Report			
Action Status:	Continuing in Progress		
Report of Progress:	Storm Water Infrastructure installed as funding allocated. New developments required to meet these codes as well.		

Action Worksheet	
Name of Jurisdiction:	City of Branson
	Risk / Vulnerability
Hazard(s) Addressed:	All Hazards
Problem being Mitigated:	To secure funding resources to develop, enhance, or sustain continuity of operations and critical infrastructure during a disaster.
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	City of Branson 3.6
Name of Action or Project:	Funding Identification
Mitigation Category:	Education and Outreach
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities
Estimated Cost:	Undetermined
Benefits:	Reduce risk of loss of government operations including emergency response during times of disaster.
	Plan for Implementation
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division
Supporting Organization/Department:	City Finance Department
Action/Project Priority:	40 - High Priority
Timeline for Completion:	Continuing in Progress
Potential Fund Sources:	SEMA & FEMA Grant Programs
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP, City Strategic Plan
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	The city seeks out and applies for various grants to support these identified programs. Examples include the SEMA EMPG and EMPG Mini-Grants as well as RHSOC Grant Funding.

	Action Worksheet	
Name of Jurisdiction:	City of Branson	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding	
Problem being Mitigated:	Reduce risk of flooding at residential, commercial properties, and critical infrastructure.	
Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Branson 3.7	
Name of Action or Project:	Infrastructure Coordination	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Continue coordination to promote infrastructure development practices that reduce damage from flooding	
Estimated Cost:	Undetermined	
Benefits:	Reduce risk of damage from flooding requiring a disaster declaration and subsequent IA and PA reimbursement funding.	
	Plan for Implementation	
Responsible Organization/Department:	Branson Fire Rescue – Emergency Management Division	
Supporting Organization/Department:	Taney County Emergency Management	
Action/Project Priority:	29 – Medium Priority	
Timeline for Completion:	Continuing in Progress	
Potential Fund Sources:	SEMA, FEMA, Capital Improvement	
Local Planning Mechanisms to be Used in Implementation, if any:	City Strategic Plan	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	City has purchased several flood prone properties (buy out) and improved several lift stations to reduce risk of flood damage. City Parks has reallocated park space at Stockstill Park (flood prone) no longer sustaining baseball fields now used as soccer fields (reducing damage to fields, fencing, dugouts, etc.	

	Action Worksheet		
Name of Jurisdiction:	City of Branson		
	Risk / Vulnerability		
Hazard(s) Addressed:	All Hazards		
Problem being Mitigated:	Improve City planning, response, mitigation and recovery for disasters utilizing GIS resources		
	Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	City of Branson 3.8		
Name of Action or Project:	GIS Development		
Mitigation Category:	Prevention, Education and Outreach		
Action or Project Description:	Continue development of Geographic Information Systems (GIS) to further identify, analyze, and map hazard prone areas to enhance decision making and facilities management.		
Estimated Cost:	\$12,000 annually		
Benefits:	Improved knowledge of flood prone areas, critical infrastructure locations, damage tracking and more.		
	Plan for Implementation		
Responsible Organization/Department:	City Engineering Department – GIS Division		
Supporting Organization/Department:	Branson Fire Rescue – Emergency Management Division		
Action/Project Priority:	37 – High Priority		
Timeline for Completion:	Continuing In Progress		
Potential Fund Sources:	City Budget		
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP		
Progress Report			
Action Status:	Continuing in Progress		
Report of Progress:	GIS Resources and Training provided to City Staff allowing development and improvements in disaster related incident management.		

Action Worksheet		
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Not all personal /staff are trained to NIMS standards	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Forsyth 3.1	
Name of Action or Project:	NIMS Training	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.	
Estimated Cost:	\$500	
Benefits:	Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department – Fire Chief	
Supporting Organization/Department:	City of Forsyth, County	
Action/Project Priority:	37	
Timeline for Completion:	1-2 years	
Potential Fund Sources:	FEMA grants, HMGP, local tax revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	comprehensive plan, emergency operations plan, budgeting process, etc.	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Lack of support and participating departments	

Action Worksheet		
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazard	
Problem being Mitigated:	Lack of 911 address on homes and Business	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Forsyth 3.2	
Name of Action or Project:	911 Addressing	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Educate the public on the importance of and enforce visible 911 addressing.	
Estimated Cost:	500	
Benefits:	Educate the public on the importance of and enforce visible 911 addressing. Locating the property in the time of emergency to be able heap with the emergency.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department –Fire Chief	
Supporting Organization/Department:	City of Forsyth Police	
Action/Project Priority:	46	
Timeline for Completion:	1 -2 years	
Potential Fund Sources:	Local Revenue, Home Owner, Business Owner	
Local Planning Mechanisms to be Used in Implementation, if any:	Inspection Process	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	Continued progress of finding property without 911 address.	

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	drought, wildfire, Fire	
Problem being Mitigated:	Lack of Water supply to fight Fire	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Forsyth 3.3	
Name of Action or Project:	Water Inventory	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Inventory alternative firefighting water sources	
Estimated Cost:	\$100,000-\$400,000	
Benefits:	Adding to New and additional Water sources to fight Fire.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department-Fire Chief	
Supporting Organization/Department:	City of Forsyth, Forsyth Building Dept, County	
Action/Project Priority:	39	
Timeline for Completion:	5 Years-10 Years	
Potential Fund Sources:	FEMA grants tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA.	
Local Planning Mechanisms to be Used in Implementation, if any:	Wild Land Firefighting Plan, comprehensive plan, capital improvement plan, emergency operations plan, budgeting process, etc.)	
Progress Report		
Action Status:	New	
Report of Progress:	Lack of Funding	

Action Worksheet			
Name of Jurisdiction:	City of Forsyth		
	Risk / Vulnerability		
Hazard(s) Addressed:	wildfire, severe weather		
Problem being Mitigated:	No location for debris managements		
	Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	City of Forsyth 3.4		
Name of Action or Project:	Debris Disposal		
Mitigation Category:	Emergency Services		
Action or Project Description:	Identify debris disposal and burning locations in community to facilitate recovery from large scale hazard events		
Estimated Cost:	0		
Benefits:	Provide a location for Debris management in the event of major disaster event.		
	Plan for Implementation		
Responsible Organization/Department:	Forsyth Fire Department- EMD –Fire Chief		
Supporting Organization/Department:	Forsyth Public Works, City of Forsyth, County		
Action/Project Priority:	32		
Timeline for Completion:	2-4 Years		
Potential Fund Sources:	FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA, EDA, etc.])		
Local Planning Mechanisms to be Used in Implementation, if any:	comprehensive plan, capital improvement plan, emergency operations plan, budgeting process, etc.		
Progress Report			
Action Status:	Continuing Not Started,		
Report of Progress:	Lack of support and location. Additional groundwork to implement plan needs to be in place before and event.		

	Action Worksheet		
Name of Jurisdiction:	City of Forsyth		
	Risk / Vulnerability		
Hazard(s) Addressed:	Drought, Flooding		
Problem being Mitigated:	No Integrate hazard mitigation into comprehensive plans and storm water management policies.		
	Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	City of Forsyth 3.5		
Name of Action or Project:	Hazard Mitigation in Plans		
Mitigation Category:	Prevention		
Action or Project Description:	Integrate hazard mitigation into comprehensive plans and storm water management policies.		
Estimated Cost:	0		
Benefits:	Integrate hazard mitigation into comprehensive plans and storm water management policies.		
	Plan for Implementation		
Responsible Organization/Department:	Forsyth Fire Department –Fire Chief		
Supporting Organization/Department:	Forsyth Building Dept., Building Inspector		
Action/Project Priority:	34		
Timeline for Completion:	2-4 Years		
Potential Fund Sources:	FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA, EDA, etc.])		
Local Planning Mechanisms to be Used in Implementation, if any:	comprehensive plan, capital improvement plan, emergency operations plan, budgeting process, etc.		
Progress Report			
Action Status:	Continuing Not Started,		
Report of Progress:	Limited to Staff and Funding		

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	(Dam failure, drought, earthquake, extreme temperature, land subsidence/sinkholes, flooding, severe thunderstorms, tornado, wildfire, severe winter weather)	
Problem being Mitigated:	No method of Continue to monitor and identify funding from state and federal programs for hazard mitigation activities	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Forsyth 3.6	
Name of Action or Project:	Funding Identification	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities	
Estimated Cost:	О	
Benefits:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities.	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department –Fire Chief	
Supporting Organization/Department:	Forsyth Building Dept., Building Inspector	
Action/Project Priority:	31	
Timeline for Completion:	2-4 Years	
Potential Fund Sources:	(FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA, EDA, etc.])	
Local Planning Mechanisms to be Used in Implementation, if any:	comprehensive plan, capital improvement plan emergency operations plan, budgeting process, etc.	
Progress Report		
Action Status:	Continuing Not Started	
Report of Progress:	limited staff availability,	

	Action Worksheet	
Name of Jurisdiction:	City of Forsyth	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flooding	
Problem being Mitigated:	No Continue coordination to promote infrastructure development practices that reduce damage from flooding	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Forsyth 3.7	
Name of Action or Project:	Infrastructure Coordination	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Continue coordination to promote infrastructure development practices that reduce damage from flooding	
Estimated Cost:	0	
Benefits:	Continue coordination to promote infrastructure development practices that reduce damage from flooding	
	Plan for Implementation	
Responsible Organization/Department:	Forsyth Fire Department –Fire Chief	
Supporting Organization/Department:	Forsyth Building Dept., Building Inspector, City of Forsyth, County	
Action/Project Priority:	30	
Timeline for Completion:	2-4 years.	
Potential Fund Sources:	FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA, EDA, etc.	
Local Planning Mechanisms to be Used in Implementation, if any:	comprehensive plan, capital improvement plan, emergency operations plan, budgeting process, etc.	
Progress Report		
Action Status:	Continuing Not Started,	
Report of Progress:	limited staff availability.	

Action Worksheet	
Name of Jurisdiction:	City of Forsyth
	Risk / Vulnerability
Hazard(s) Addressed:	dam failure, drought, earthquake, extreme temperature, land subsidence/sinkholes, flooding, severe thunderstorms, tornado, wildfire, severe winter weather)
Problem being Mitigated:	No In House GIS – Supported by County GIS
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	City of Forsyth 3.8
Name of Action or Project:	GIS Development
Mitigation Category:	Prevention, Education and Outreach
Action or Project Description:	Continue development of Geographic Information Systems (GIS) to further identify, analyze, and map hazard prone areas to enhance decision making and facilities management.
Estimated Cost:	0
Benefits:	Continue development of Geographic Information Systems (GIS) to further identify, analyze, and map hazard prone areas to enhance decision making and facilities management.
	Plan for Implementation
Responsible Organization/Department:	Forsyth Fire Department- Fire Chief
Supporting Organization/Department:	Taney County, City of Forsyth
Action/Project Priority:	29
Timeline for Completion:	ongoing
Potential Fund Sources:	(FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources [MDC, DNR, USDA, EDA, etc.])
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive plan, capital improvement plan, school infrastructure plan, emergency operations plan, budgeting process, etc.)
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	lack of funds, limited staff availability

	Action Worksheet	
Name of Jurisdiction:	City of Hollister	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Provides emergency preparedness	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Hollister 3.1	
Name of Action or Project:	NIMS Training	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.	
Estimated Cost:	0.00	
Benefits:	Prepare staff for emergencies and interact with other agencies.	
	Plan for Implementation	
Responsible Organization/Department:	COH – Human Resources	
Supporting Organization/Department:	COH – All Departments	
Action/Project Priority:	25	
Timeline for Completion:	Ongoing	
Potential Fund Sources:	Not needed	
Local Planning Mechanisms to be Used in Implementation, if any:	Emergency Operations Plan	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:		

	Action Worksheet	
Name of Jurisdiction:	City of Hollister	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Prevent loss of life and location of destressed.	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Hollister 3.2	
Name of Action or Project:	911 Addressing	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Educate the public on the importance of and enforce visible 911 addressing.	
Estimated Cost:	0.00	
Benefits:	Decrease response time for emergency responders	
	Plan for Implementation	
Responsible Organization/Department:	COH – Building Official	
Supporting Organization/Department:	Western Taney County Fire Protection District (WTCFPD)	
Action/Project Priority:	35	
Timeline for Completion:	Ongoing new construction	
Potential Fund Sources:	Local Tax Revenue	
Local Planning Mechanisms to be Used in Implementation, if any:	Adopted Building Codes	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Increase enforcement during annual business license inspections.	

Action Worksheet		
Name of Jurisdiction:	City of Hollister	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Decrease loss of life and/or property damage	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Hollister 3.3	
Name of Action or Project:	Hazard Mitigation in Plans	
Mitigation Category:	Prevention	
Action or Project Description:	Integrate hazard mitigation into comprehensive plans and storm water management policies.	
Estimated Cost:	0.00	
Benefits:	Plan to preventable damage/loss, save the cost of repairs	
	Plan for Implementation	
Responsible Organization/Department:	COH – Executive Dept.	
Supporting Organization/Department:	COH – Building Official & Public Works Director	
Action/Project Priority:	27	
Timeline for Completion:	Ongoing as needed	
Potential Fund Sources:	0.00	
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive Plan	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	Updating as needed	

	Action Worksheet
Name of Jurisdiction:	City of Hollister
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Property damage and/or loss of life
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	City of Hollister 3.5
Name of Action or Project:	Infrastructure Coordination
Mitigation Category:	Education and Outreach
Action or Project Description:	Continue coordination to promote infrastructure development practices that reduce damage from flooding
Estimated Cost:	0.00
Benefits:	Prevent property damage and/or economic loss
	Plan for Implementation
Responsible Organization/Department:	COH – Building Official & Public Works Director
Supporting Organization/Department:	COH – Executive Dept.
Action/Project Priority:	29
Timeline for Completion:	Ongoing as needed
Potential Fund Sources:	Local Tax Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive Plan and Capital Improvement Plan
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	No updates

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Lack of training for municipal officials	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Merriam Woods 3.1	
Name of Action or Project:	NIMS Training	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.	
Estimated Cost:	\$0-\$500	
Benefits:	Training for officials will improve response to hazard events	
	Plan for Implementation	
Responsible Organization/Department:	Board of Alderman, Police Department	
Supporting Organization/Department:	Police Department	
Action/Project Priority:	29 Medium	
Timeline for Completion:	On-Going	
Potential Fund Sources:	General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	County/ City codes	
Progress Report		
Action Status:	Revised, continuing	
Report of Progress:	N/A	

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Poor 911 addressing makes emergency response difficult	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Merriam Woods 3.2	
Name of Action or Project:	911 Addressing	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Educate the public on the importance of and enforce visible 911 addressing.	
Estimated Cost:	\$0-\$300	
Benefits:	Training for officials will improve response to hazard events	
	Plan for Implementation	
Responsible Organization/Department:	Police department, Code Enforcement	
Supporting Organization/Department:	Police department	
Action/Project Priority:	27	
Timeline for Completion:	On-Going	
Potential Fund Sources:	General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	County/City codes	
Progress Report		
Action Status:	Continuing	
Report of Progress:	Continuing not started due to employee changes	

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	Wildfire and Drought	
Problem being Mitigated:	Firefighting water sources running out during wildfires	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Merriam Woods 3.3	
Name of Action or Project:	Water Inventory	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Inventory alternative firefighting water sources	
Estimated Cost:	\$100-\$300	
Benefits:	Ensure and enhance continued operation of government, emergency functions and critical infrastructure in a disaster	
	Plan for Implementation	
Responsible Organization/Department:		
Supporting Organization/Department:	Fire Department	
Action/Project Priority:	29 Medium	
Timeline for Completion:	On Going	
Potential Fund Sources:	General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
	Progress Report	
Action Status:	Continuing not started	
Report of Progress:	Continuing not started due to change of employees	

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood	
Problem being Mitigated:	Lack of Water rescue capability	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Merriam Woods 3.4	
Name of Action or Project:	Water rescue	
Mitigation Category:	Emergency services	
Action or Project Description:	Enhance water rescue capabilities	
Estimated Cost:	\$25,000	
Benefits:	Emergency response teams will be better equipped to perform water rescues during flood events	
	Plan for Implementation	
Responsible Organization/Department:	Western Taney County Fire Department	
Supporting Organization/Department:	Western Taney County Fire Department	
Action/Project Priority:	26 Medium	
Timeline for Completion:	On-going	
Potential Fund Sources:	Mitigation Grants, General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continuing	
Report of Progress:	Continuing not started due to funds	

	Action Worksheet
Name of Jurisdiction:	City of Merriam Woods
	Risk / Vulnerability
Hazard(s) Addressed:	Tornado, Thunderstorm, Winter, Earthquake, Dam failure
Problem being Mitigated:	Inability to dispose debris after hazards
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	City of Merriam Woods 3.5
Name of Action or Project:	Debris Disposal
Mitigation Category:	Emergency Services
Action or Project Description:	Identify debris disposal and burning locations in community to facilitate recovery from large scale hazard events
Estimated Cost:	No Cost
Benefits:	Recovery from hazards will be helped by identifying debris disposal locations
	Plan for Implementation
Responsible Organization/Department:	Board Of Alderman
Supporting Organization/Department:	Public Works
Action/Project Priority:	30 High
Timeline for Completion:	12 Months
Potential Fund Sources:	General Funds
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continuing
Report of Progress:	Continuing not started due to change in staff

	Action Worksheet
Name of Jurisdiction:	City of Merriam Woods
	Risk / Vulnerability
Hazard(s) Addressed:	All Hazards
Problem being Mitigated:	Lack of Hazard mitigation principals in city and county plans
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	City of Merriam Woods 3.6
Name of Action or Project:	Hazard Mitigation in Plans
Mitigation Category:	Prevention
Action or Project Description:	Integrate hazard mitigation into comprehensive plans and storm water management policies.
Estimated Cost:	1-5 years
Benefits:	Plans will have to include hazard mitigation principles improving resilience to hazard events
	Plan for Implementation
Responsible Organization/Department:	Board of Alderman
Supporting Organization/Department:	Board of Alderman
Action/Project Priority:	33 High
Timeline for Completion:	1-5 years
Potential Fund Sources:	N/A
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continuing
Report of Progress:	Continued not started due to staff changes

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Lack of funding for hazard mitigation projects	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Merriam Woods 3.7	
Name of Action or Project:	Funding Identification	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities	
Estimated Cost:	No Cost	
Benefits:	Increased opportunity for funding for hazard mitigation activities	
	Plan for Implementation	
Responsible Organization/Department:	Police Department, city clerk, and board of alderman	
Supporting Organization/Department:	City Administration	
Action/Project Priority:	30 high Priority	
Timeline for Completion:	On-Going	
Potential Fund Sources:	General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	Continuing in progress due to all new staff	

	Action Worksheet	
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	Flood	
Problem being Mitigated:	Poor coordination about infrastructure development can lead to flood damage.	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Merriam Woods 3.8	
Name of Action or Project:	Infrastructure Coordination	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Continue coordination to promote infrastructure development practices that reduce damage from flooding	
Estimated Cost:	\$0-\$500	
Benefits:	Better infrastructure development will decrease damage during flood	
	Plan for Implementation	
Responsible Organization/Department:	Building Inspector	
Supporting Organization/Department:	Board of Alderman	
Action/Project Priority:	29 Medium	
Timeline for Completion:	On Going	
Potential Fund Sources:	General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
Progress Report		
Action Status:	Continuing in Progress	
Report of Progress:	Continuing in progress due to all new staff	

Action Worksheet		
Name of Jurisdiction:	City of Merriam Woods	
	Risk / Vulnerability	
Hazard(s) Addressed:	All Hazards	
Problem being Mitigated:	Lack of data for decision making and facilities management	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Merriam Woods 3.9	
Name of Action or Project:	GIS Development	
Mitigation Category:	Prevention, Education and Outreach	
Action or Project Description:	Continue development of Geographic Information Systems (GIS) to further identify, analyze, and map hazard prone areas to enhance decision making and facilities management.	
Estimated Cost:	Unknown	
Benefits:	More and better data will help with mitigation-related decision making	
	Plan for Implementation	
Responsible Organization/Department:	Board of Alderman, City Clerk	
Supporting Organization/Department:	Public Works	
Action/Project Priority:	28 Medium	
Timeline for Completion:	On-going	
Potential Fund Sources:	General Funds	
Local Planning Mechanisms to be Used in Implementation, if any:	N/A	
	Progress Report	
Action Status:	Continuing in Progress	
Report of Progress:	Continuing in progress due to lack of employee time	

Action Worksheet		
Name of Jurisdiction:	City of Rockaway Beach	
	Risk / Vulnerability	
Hazard(s) Addressed:	All	
Problem being Mitigated:	Extra runoff can exacerbate flash flooding	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	City of Rockaway Beach 3.1	
Name of Action or Project:	911 Addressing	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Educate the public on the importance of and enforce visible 911 addressing.	
Estimated Cost:	200.00 annually	
Benefits:	Reduces extra runoff, helping reduce levels of flash flooding	
	Plan for Implementation	
Responsible Organization/Department:	City Alderman	
Supporting Organization/Department:		
Action/Project Priority:	44	
Timeline for Completion:	2 years	
Potential Fund Sources:	Grants	
Local Planning Mechanisms to be Used in Implementation, if any:	NFIP	
	Progress Report	
Action Status:	Continuing	
Report of Progress:	N/A	

Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Hazard Education/Preparedness	
Problem being Mitigated:	Education	
Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Village of Bull Creek 3.1	
Name of Action or Project:	NIMS Training	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.	
Estimated Cost:	2500	
Benefits:	Educate local elected officials on Emergency Management/Preparedness	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	SEMA, FEMA	
Action/Project Priority:	23	
Timeline for Completion:	4 years	
Potential Fund Sources:	General Fund	
Local Planning Mechanisms to be Used in Implementation, if any:	Attend Classes when offered	
	Progress Report	
Action Status:	New	
Report of Progress:	Need to find classes and get elected officials to sign up.	

Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Loss of Life	
Problem being Mitigated:	EMS navigating our community	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Village of Bull Creek 3.2	
Name of Action or Project:	911 Addressing	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Educate the public on the importance of and enforce visible 911 addressing.	
Estimated Cost:	2500	
Benefits:	EMS can locate homes during emergencies	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	Taney County EMS, Fire, Sheriff	
Action/Project Priority:	34	
Timeline for Completion:	2 years	
Potential Fund Sources:	General Fund	
Local Planning Mechanisms to be Used in Implementation, if any:	Taney County EMS	
	Progress Report	
Action Status:	Continuing	
Report of Progress:	We need to promote this more to our residents	

Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	All	
Problem being Mitigated:	All	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Village of Bull Creek 3.3	
Name of Action or Project:	Hazard Mitigation in Plans	
Mitigation Category:	Prevention	
Action or Project Description:	Integrate hazard mitigation into comprehensive plans and storm water management policies.	
Estimated Cost:	unknown	
Benefits:	Our community will be up to date on preparedness	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	SMCOG, SEMA, FEMA	
Action/Project Priority:	35	
Timeline for Completion:	4 years	
Potential Fund Sources:	grants	
Local Planning Mechanisms to be Used in Implementation, if any:	Hazard Mitigation Plan, Comprehensive plan	
	Progress Report	
Action Status:	Continuing	
Report of Progress:	Working on it right now	

Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	All	
Problem being Mitigated:	All	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Village of Bull Creek 3.4	
Name of Action or Project:	Funding Identification	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities	
Estimated Cost:	N/A	
Benefits:	We can obtain funding to implement our Mitigation Plan	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	All State and Federal	
Action/Project Priority:	24	
Timeline for Completion:	5 years	
Potential Fund Sources:	grants	
Local Planning Mechanisms to be Used in Implementation, if any:	Mitigation Plan	
Progress Report		
Action Status:	New	
Report of Progress:	We need to continue to find funding	

	Action Worksheet	
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Loss of Infrastructure	
Problem being Mitigated:	Loss of property/infrastructure	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Village of Bull Creek 3.5	
Name of Action or Project:	Infrastructure Coordination	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Continue coordination to promote infrastructure development practices that reduce damage from flooding	
Estimated Cost:	500,000	
Benefits:	Safe place for community to evacuate to	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	SEMA, FEMA	
Action/Project Priority:	29	
Timeline for Completion:	2 years	
Potential Fund Sources:	Grants, general fund	
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive Plan	
	Progress Report	
Action Status:	continuing	
Report of Progress:	Built new Village Hall, looking to add generator to Village Hall	

	Action Worksheet
Name of Jurisdiction:	Village of Bull Creek
	Risk / Vulnerability
Hazard(s) Addressed:	All
Problem being Mitigated:	Lack of Communication
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Village of Bull Creek 3.6
Name of Action or Project:	GIS Development
Mitigation Category:	Prevention, Education and Outreach
Action or Project Description:	Continue development of Geographic Information Systems (GIS) to further identify, analyze, and map hazard prone areas to enhance decision making and facilities management.
Estimated Cost:	100,000
Benefits:	Prevention, Education and Outreach
	Plan for Implementation
Responsible Organization/Department:	Bull Creek Village Board of Trustees
Supporting Organization/Department:	Engineer, SMCOG
Action/Project Priority:	31
Timeline for Completion:	4 years
Potential Fund Sources:	grants
Local Planning Mechanisms to be Used in Implementation, if any:	Hazard Mitigation Plan
Progress Report	
Action Status:	New
Report of Progress:	We need to coordinate with Engineer

	Action Worksheet	
Name of Jurisdiction:	Village of Bull Creek	
	Risk / Vulnerability	
Hazard(s) Addressed:	Loss of Power during severe weather	
Problem being Mitigated:	Loss of power, equipment, community safety	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Village of Bull Creek 3.7	
Name of Action or Project:	Village hall generator	
Mitigation Category:	Structure and Infrastructure Projects	
Action or Project Description:	purchase and install a generator for the village hall which serves as an emergency operations center during emergencies	
Estimated Cost:	85,000	
Benefits:	Village Hall can operate as an EOC during storms	
	Plan for Implementation	
Responsible Organization/Department:	Bull Creek Village Board of Trustees	
Supporting Organization/Department:	SM COG	
Action/Project Priority:	43	
Timeline for Completion:	1 year	
Potential Fund Sources:	grants	
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive Plan	
Progress Report		
Action Status:	New	
Report of Progress:	Applied for grant through SMCOG	

	Action Worksheet		
Name of Jurisdiction:	Village of Bull Creek		
	Risk / Vulnerability		
Hazard(s) Addressed:	Loss of water during hazard event		
Problem being Mitigated:	Loss of water during hazard event		
	Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	Village of Bull Creek 3.8		
Name of Action or Project:	Water tower generator		
Mitigation Category:	Structure and Infrastructure Projects		
Action or Project Description:	purchase and install a generator for the water tower. The current generator is an old army field generator and is out of date		
Estimated Cost:	60,000		
Benefits:	Village will not lose water service during serious weather events		
	Plan for Implementation		
Responsible Organization/Department:	Bull Creek Village Board of Trustees		
Supporting Organization/Department:	SMCOG		
Action/Project Priority:	39		
Timeline for Completion:	1 year		
Potential Fund Sources:	grants		
Local Planning Mechanisms to be Used in Implementation, if any:	Hazard Mitigation Plan		
	Progress Report		
Action Status:	New		
Report of Progress:	Applied for grant through SMCOG		

Action Worksheet	
Name of Jurisdiction:	Branson R-IV School District
	Risk / Vulnerability
Hazard(s) Addressed:	All hazards
Problem being Mitigated:	Provide communication for community
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Branson R-IV School District 3.1
Name of Action or Project:	NIMS Training
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.
Estimated Cost:	Minimal
Benefits:	Reduction of loss of life, injury or property
	Plan for Implementation
Responsible Organization/Department:	District Administration
Supporting Organization/Department:	Safety Committee
Action/Project Priority:	20
Timeline for Completion:	2-4 years
Potential Fund Sources:	Local Funding
Local Planning Mechanisms to be Used in Implementation, if any:	
	Progress Report
Action Status:	New
Report of Progress:	Time and resources.

Action Worksheet			
Name of Jurisdiction:	Branson R-IV School District		
	Risk / Vulnerability		
Hazard(s) Addressed:	All hazards		
Problem being Mitigated:	Public Awareness		
	Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	Branson R-IV School District 3.2		
Name of Action or Project:	Funding Identification		
Mitigation Category:	Education and Outreach		
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities		
Estimated Cost:	Minimal		
Benefits:	Reduction of loss of life, injury or property		
	Plan for Implementation		
Responsible Organization/Department:	District admin		
Supporting Organization/Department:	Operations		
Action/Project Priority:	38		
Timeline for Completion:	1-2 years		
Potential Fund Sources:	Local Funding		
Local Planning Mechanisms to be Used in Implementation, if any:			
	Progress Report		
Action Status:	New		
Report of Progress:	N/A		

Action Worksheet		
Name of Jurisdiction:	Forsyth R-III School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Provide communication for community	
Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Forsyth R-III School District 3.1	
Name of Action or Project:	NIMS Training	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.	
Estimated Cost:	Minimal	
Benefits:	Reduction of loss of life, injury or property	
Plan for Implementation		
Responsible Organization/Department:	District Administration	
Supporting Organization/Department:	Safety Committee	
Action/Project Priority:	30	
Timeline for Completion:	Ongoing	
Potential Fund Sources:	Local Funding	
Local Planning Mechanisms to be Used in Implementation, if any:		
	Progress Report	
Action Status:	Continue	
Report of Progress:	As directed by city officials (fire department) we will host and participate in NIMS training	

	Action Worksheet
Name of Jurisdiction:	Forsyth R-III School District
	Risk / Vulnerability
Hazard(s) Addressed:	All hazards
Problem being Mitigated:	Public Awareness
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Forsyth R-III School District 3.2
Name of Action or Project:	Funding Identification
Mitigation Category:	Education and Outreach
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities
Estimated Cost:	Minimal
Benefits:	Reduction of loss of life, injury or property
	Plan for Implementation
Responsible Organization/Department:	District admin
Supporting Organization/Department:	Operations
Action/Project Priority:	37
Timeline for Completion:	1-2 years
Potential Fund Sources:	Local Funding
Local Planning Mechanisms to be Used in Implementation, if any:	
	Progress Report
Action Status:	Continue
Report of Progress:	Continually monitor funding and grant opportunities

Action Worksheet			
Name of Jurisdiction:	Hollister R-V School District		
	Risk / Vulnerability		
Hazard(s) Addressed:	All		
Problem being Mitigated:	Providing all stakeholders in our community and surrounding area with a plan to be carried out in the event of a hazardous situation.		
	Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	Hollister R-V School District 3.1		
Name of Action or Project:	NIMS Training		
Mitigation Category:	Education and Outreach		
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.		
Estimated Cost:	\$2500		
Benefits:	Loss of life and time when dealing with different hazardous situations. Specifically in response time for those who are reacting to help the school district through the hazardous situation. Communication and preparedness will increase with outside agencies.		
	Plan for Implementation		
Responsible Organization/Department:	Central Office		
Supporting Organization/Department:	Safety Committee		
Action/Project Priority:	15		
Timeline for Completion:	24 months		
Potential Fund Sources:	Local Funds		
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive improvement plan, safety plans		
	Progress Report		
Action Status:	New		
Report of Progress:	Getting funding for training, finding training sources, having time to provide overviews for those local agencies that should be involved in the planning.		

	Action Worksheet	
Name of Jurisdiction:	Hollister R-V School District	
	Risk / Vulnerability	
Hazard(s) Addressed:	All	
Problem being Mitigated:	Finding funding to help pay for some of the hazard mitigation strategies identified by the district.	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Hollister R-V School District 3.2	
Name of Action or Project:	Funding Identification	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities	
Estimated Cost:	\$0	
Benefits:	Finding funding for hazardous mitigation for shelters and NIMS training will help the district be able to afford it as well as prepare others for these situations when they arise.	
	Plan for Implementation	
Responsible Organization/Department:	Central Office	
Supporting Organization/Department:	Safety Committee	
Action/Project Priority:	13	
Timeline for Completion:	1-2 years	
Potential Fund Sources:	Local funds	
Local Planning Mechanisms to be Used in Implementation, if any:	District safety committee and the central office staff.	
	Progress Report	
Action Status:	Ongoing	
Report of Progress:	This will be an ongoing process as we continue to monitor for new funds released by the federal and state government to assist in these mitigation strategies.	

	Action Worksheet
Name of Jurisdiction:	Kirbyville R-VI School District
	Risk / Vulnerability
Hazard(s) Addressed:	All Hazards
Problem being Mitigated:	Lack of Training for municipal officials
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Kirbyville R-VI School District 3.1
Name of Action or Project:	NIMS Training
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.
Estimated Cost:	\$0 - \$1000
Benefits:	Proper training for officials will improve responses to hazardous events
	Plan for Implementation
Responsible Organization/Department:	Taney County
Supporting Organization/Department:	Kirbyville R-VI School District
Action/Project Priority:	31 / H
Timeline for Completion:	1-3 years
Potential Fund Sources:	State and County funding sources
Local Planning Mechanisms to be Used in Implementation, if any:	Attend NIMS training
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Participation in county HMP meetings.

	Action Worksheet
Name of Jurisdiction:	Kirbyville R-VI School District
	Risk / Vulnerability
Hazard(s) Addressed:	All Hazards
Problem being Mitigated:	Lack of funding for hazardous mitigation projects
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Kirbyville R-VI School District 3.2
Name of Action or Project:	Funding Identification
Mitigation Category:	Education and Outreach
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities
Estimated Cost:	\$0-\$100
Benefits:	Increased opportunities for funding for hazard mitigation activities.
	Plan for Implementation
Responsible Organization/Department:	State and County Emergency Management Offices
Supporting Organization/Department:	Kirbyville R-VI School District
Action/Project Priority:	36 /H
Timeline for Completion:	Immediate to 3 years
Potential Fund Sources:	State and County
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Still no dedicated funding source for this activity/action.

	Action Worksheet		
Name of Jurisdiction:	Taneyville R-II School District		
	Risk / Vulnerability		
Hazard(s) Addressed:	flooding, severe thunderstorms, tornado, and severe winter weather.		
Problem being Mitigated:	The lack of NIMS Training for all elected officials and stakeholders.		
	Action or Project		
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster		
Action/Project Number:	Taneyville R-II School District 3.1		
Name of Action or Project:	NIMS Training		
Mitigation Category:	Education and Outreach		
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.		
Estimated Cost:	\$0-\$500		
Benefits:	NIMS training will help officials and stakeholders become more aware of mitigation strategies and increase communications across multiple agencies.		
	Plan for Implementation		
Responsible Organization/Department:	Taneyville School, Local Fire and Police Departments, Village of Taneyville		
Supporting Organization/Department:	Taneyville School, Local Fire and Police Departments, Village of Taneyville		
Action/Project Priority:	34, High Priority		
Timeline for Completion:	1-2 years		
Potential Fund Sources:	FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources.		
Local Planning Mechanisms to be Used in Implementation, if any:	Emergency & safety operation plans		
	Progress Report		
Action Status:	Indicate status as New, Continuing Not Started, or Continuing in Progress		
Report of Progress:	There is a lack of community officials/staffing (most are on volunteer basis only) and revenue to support official positions. The Village of Taneyville does not have a police department, only has a volunteer fire department, and elected board members in 2022.		

	Action Worksheet
Name of Jurisdiction:	Taneyville R-II School District
	Risk / Vulnerability
Hazard(s) Addressed:	flooding, severe thunderstorms, tornado, and severe winter weather.
Problem being Mitigated:	Lack of funding to prevent/reduce hazard and increase mitigation.
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster.
Action/Project Number:	Taneyville R-II School District 3.2
Name of Action or Project:	Funding Identification
Mitigation Category:	Education and Outreach
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities.
Estimated Cost:	\$0-\$20,000
Benefits:	The identification of funding could lead to the financing of hazard mitigation procedures and structures to reduce the loss of life during severe weather events.
	Plan for Implementation
Responsible Organization/Department:	Taneyville R-II School District Administration and School Board
Supporting Organization/Department:	Support staff
Action/Project Priority:	35
Timeline for Completion:	1 month - ongoing
Potential Fund Sources:	FEMA grants [HMGP, BRIC, PDM, FMA], local tax revenue, loans, bonds, other grant sources.
Local Planning Mechanisms to be Used in Implementation, if any:	Comprehensive plan, school infrastructure plan, emergency operations plan, budgeting process, etc.
	Progress Report
Action Status:	Continuing in Progress
Report of Progress:	The district has restructured positions to allow faculty and staff more time to complete this action.

	Action Worksheet
Name of Jurisdiction:	Taney County Regional Sewer District
	Risk / Vulnerability
Hazard(s) Addressed:	Dam failure, drought, earthquake, extreme temperature, land subsidence/sinkholes, flooding, severe thunderstorms, tornado, wildfire, severe winter weather
Problem being Mitigated:	Lack of preparedness during an emergency event
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Taney County Regional Sewer District 3.1
Name of Action or Project:	NIMS Training
Mitigation Category:	Education and Outreach
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.
Estimated Cost:	N/A
Benefits:	Preparedness when an emergency arises
	Plan for Implementation
Responsible Organization/Department:	Administration
Supporting Organization/Department:	N/A
Action/Project Priority:	42
Timeline for Completion:	Ongoing
Potential Fund Sources:	N/A
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	None

	Action Worksheet
Name of Jurisdiction:	Taney County Regional Sewer District
	Risk / Vulnerability
Hazard(s) Addressed:	Dam failure, drought, earthquake, extreme temperature, land subsidence/sinkholes, flooding, severe thunderstorms, tornado, wildfire, severe winter weather
Problem being Mitigated:	Federal programs available with no knowledge of how to obtain them
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Taney County Regional Sewer District 3.2
Name of Action or Project:	Funding Identification
Mitigation Category:	Education and Outreach
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities
Estimated Cost:	N/A
Benefits:	Knowledge of what federal programs are available and how to apply
	Plan for Implementation
Responsible Organization/Department:	Administration
Supporting Organization/Department:	Administrative Office
Action/Project Priority:	35
Timeline for Completion:	Ongoing
Potential Fund Sources:	N/A
Local Planning Mechanisms to be Used in Implementation, if any:	Emergency operations plan
	Progress Report
Action Status:	Continuing in Progress
Report of Progress:	Continuing with NIMS training

	Action Worksheet
Name of Jurisdiction:	Taney County Regional Sewer District
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	No ability to determine flood plain areas
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Taney County Regional Sewer District 3.3
Name of Action or Project:	GIS Development
Mitigation Category:	Prevention, Education and Outreach
Action or Project Description:	Continue development of Geographic Information Systems (GIS) to further identify, analyze, and map hazard prone areas to enhance decision making and facilities management.
Estimated Cost:	0
Benefits:	When utilizing flood-prone areas, design of facilities can be made to prevent loss of equipment and structures
	Plan for Implementation
Responsible Organization/Department:	Administrative
Supporting Organization/Department:	Administrative Office
Action/Project Priority:	43
Timeline for Completion:	Ongoing
Potential Fund Sources:	Capital Improvement Plan
Local Planning Mechanisms to be Used in Implementation, if any:	Budget Process
Progress Report	
Action Status:	Continuing in Progress
Report of Progress:	Continue with GIS updates and improvements

Action Worksheet		
Name of Jurisdiction:	Western Taney County Fire Protection District	
	Risk / Vulnerability	
Hazard(s) Addressed:	All hazards	
Problem being Mitigated:	Lack of training for municipal officials	
	Action or Project	
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster	
Action/Project Number:	Western Taney County Fire Protection District 3.1	
Name of Action or Project:	NIMS Training	
Mitigation Category:	Education and Outreach	
Action or Project Description:	Promote and provide NIMS training and/or information for all elected officials, public administrators, school administrators, and community stakeholders.	
Estimated Cost:	n/a	
Benefits:	Training for officials will improve response to hazard events	
	Plan for Implementation	
Responsible Organization/Department:	Training & Education	
Supporting Organization/Department:		
Action/Project Priority:	High; 40	
Timeline for Completion:	Continuous	
Potential Fund Sources:	Online federal programs, general funds, state training funds	
Local Planning Mechanisms to be Used in Implementation, if any:		
	Progress Report	
Action Status:	Continuing- in progress	
Report of Progress:	Requirement for new personnel and for promotional process	

	Action Worksheet
Name of Jurisdiction:	Western Taney County Fire Protection District
	Risk / Vulnerability
Hazard(s) Addressed:	Wildfire; drought
Problem being Mitigated:	Firefighting water sources running out during wildfires
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Western Taney County Fire Protection District 3.2
Name of Action or Project:	Water Inventory
Mitigation Category:	Education and Outreach
Action or Project Description:	Inventory alternative firefighting water sources
Estimated Cost:	\$50,000 annually
Benefits:	Ensure and enhance continued operation of government, emergency functions and critical infrastructure in a disaster
	Plan for Implementation
Responsible Organization/Department:	Prevention
Supporting Organization/Department:	
Action/Project Priority:	High; 41
Timeline for Completion:	Continuous
Potential Fund Sources:	Federal grants
Local Planning Mechanisms to be Used in Implementation, if any:	
	Progress Report
Action Status:	Continuing-in progress
Report of Progress:	Identifying alternate methods of water supply and maintaining a list of water sources.

	Action Worksheet
Name of Jurisdiction:	Western Taney County Fire Protection District
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Lack of water rescue capability
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Western Taney County Fire Protection District 3.3
Name of Action or Project:	Water rescue
Mitigation Category:	Emergency services
Action or Project Description:	Enhance water rescue capabilities
Estimated Cost:	\$50,000 annually
Benefits:	Emergency response teams will be better equipped to perform water rescue during flood events.
	Plan for Implementation
Responsible Organization/Department:	District Administration
Supporting Organization/Department:	
Action/Project Priority:	High; 39
Timeline for Completion:	Continuous
Potential Fund Sources:	Homeland Security Funding, general funds
Local Planning Mechanisms to be Used in Implementation, if any:	
	Progress Report
Action Status:	Continuing- in progress
Report of Progress:	Continuously recruiting personnel and maintaining a training and maintenance schedule.

	Action Worksheet
Name of Jurisdiction:	Western Taney County Fire Protection District
	Risk / Vulnerability
Hazard(s) Addressed:	All Hazards
Problem being Mitigated:	Lack of funding for hazard mitigation projects
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Western Taney County Fire Protection District 3.4
Name of Action or Project:	Funding Identification
Mitigation Category:	Education and Outreach
Action or Project Description:	Continue to monitor and identify funding from state and federal programs for hazard mitigation activities
Estimated Cost:	\$1000 staff time
Benefits:	Increased opportunities for funding for hazard mitigation activities.
	Plan for Implementation
Responsible Organization/Department:	District administration
Supporting Organization/Department:	
Action/Project Priority:	High; 40
Timeline for Completion:	Continuous
Potential Fund Sources:	General funds
Local Planning Mechanisms to be Used in Implementation, if any:	
	Progress Report
Action Status:	Continuing- in progress
Report of Progress:	Identify grants available and projects that are eligible to pursue funding.

	Action Worksheet
Name of Jurisdiction:	Western Taney County Fire Protection District
	Risk / Vulnerability
Hazard(s) Addressed:	Flooding, severe thunderstorms
Problem being Mitigated:	Potential loss of power due to hazard events
	Action or Project
Applicable Goal Statement:	Goal 3: Ensure continued operation of government, emergency functions, and critical infrastructure in a disaster
Action/Project Number:	Western Taney County Fire Protection District 3.5
Name of Action or Project:	Backup Generator
Mitigation Category:	Structure and infrastructure projects
Action or Project Description:	Purchase a backup generator for the main station in Branson to prevent an interruption of services due to power outages
Estimated Cost:	\$75,000 - \$100,000
Benefits:	Firefighting and emergency services will not be interrupted due to power outage
	Plan for Implementation
Responsible Organization/Department:	District administration
Supporting Organization/Department:	SMCOG
Action/Project Priority:	35
Timeline for Completion:	1-2 years
Potential Fund Sources:	General funds, HMGP, BRIC
Local Planning Mechanisms to be Used in Implementation, if any:	
	Progress Report
Action Status:	New
Report of Progress:	

Table 4.3. Mitigation Action Matrix

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
	Prevention Public Education							
2.4	Update Codes	Taney County	34	2	All	Х	X	X
2.5	NFIP Requirement Enforcement	Taney County	43	2	Flooding	Х	X	X
2.6	Waterway Maintenance	Taney County	36	2	Flooding	X	X	X
3.4	Hazard Mitigation in Plans	Taney County	37	3	All			
3.7	GIS Development	Taney County	40	3	All			
1.3	Fire-Resistant Construction	City of Branson	29	1	Wildfire		X	
2.5	Update Codes	City of Branson	37	2	Flooding, thunderstorm, wildfire	X	X	X
2.6	NFIP Requirement Enforcement	City of Branson	34	2	Flooding	Х	Х	Х
3.1	Hazard Mitigation in Plans	City of Branson	31	3	Flooding			
3.8	GIS Development	City of Branson	37	3	All			
1.2	Fire-Resistant Construction	City of Forsyth	33	1	Drought, extreme temps, wildfire		Х	
2.4	Update Codes	City of Forsyth	39	2	All	X	X	X
2.5	Runoff Ordinance Enforcement	City of Forsyth	33	2	Flooding	X	Х	X
2.6	Waterway Maintenance	City of Forsyth	29	2	Flooding	X	Х	X
3.5	Hazard Mitigation in Plans	City of Forsyth	34	3	Drought, flooding			
3.8	GIS Development	City of Forsyth	29	3	All			
1.2	Fire-Resistant Construction	City of Hollister	30	1	Drought, extreme temperatures, wildfire		X	
2.4	Update Codes	City of Hollister	31	2	All	Х	Х	X
2.5	NFIP Requirement Enforcement	City of Hollister	31	2	Flooding	Х	X	X
3.3	Hazard Mitigation in Plans	City of Hollister	27	3	All			
1.2	Fire-Resistant Construction	City of Merriam Woods	38	1	Wildfire		Х	
2.4	Update Codes	City of Merriam Woods	32	2	All	Х	Х	Х
2.5	Runoff Ordinance Enforcement	City of Merriam Woods	24	2	Thunderstorm, flooding	Х	Х	Х
2.6	NFIP Requirement Enforcement	City of Merriam Woods	28	2	Flooding	Х	Х	Х

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
2.7	Waterway Maintenance	City of Merriam Woods	28	2	Flooding	Х	Х	X
3.6	Hazard Mitigation in Plans	City of Merriam Woods	33	3	All			
3.9	GIS Development	City of Merriam Woods	28	3	All			
1.2	Fire-Resistant Construction	City of Rockaway Beach	47	1	Wildfire		Х	
2.2	Update Codes	City of Rockaway Beach	38	2	Earthquake, thunderstorm, tornado, wildfire	X	X	X
2.3	NFIP Requirement Enforcement	City of Rockaway Beach	43	3	Flooding	Х	Х	Х
1.9	Water Conservation	Village of Bull Creek	36	1	drought			
1.10	Building Codes	Village of Bull Creek	26	1	All	Х	Х	Х
2.2	NFIP Requirement Enforcement	Village of Bull Creek	32	2	Flooding	Х	Х	Х
2.3	Waterway Maintenance	Village of Bull Creek	33	2	Flooding	Х	Х	Х
2.4	Vegetation Maintenance	Village of Bull Creek	29	2	Flooding	Х	Х	Х
3.3	Hazard Mitigation in Plans	Village of Bull Creek	35	3	All			
3.6	GIS Development	Village of Bull Creek	31	3	All			
3.3	GIS Development	Taney County Regional Sewer	43	3	Flooding			
1.2	Fire-Resistant Construction	Western Taney Fire Protection	40	1	Wildfire		Х	
	Structure and Infrastructure Projects							
1.6	New Safe Rooms	Taney County	30	1	Tornado, thunderstorm		Х	
2.1	Flood Mitigation	Taney County	36	2	Flooding	Х	Х	Х

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
1.1	Safe Room Construction	City of Branson	28	1	Tornado, thunderstorm		Х	
1.5	Siren Maintenance	City of Branson	32	1	Thunderstorm, tornado	X	X	
1.8	New Safe Rooms	City of Branson	23	1	Thunderstorm, tornado		Х	
2.1	Flood Mitigation	City of Branson	38	2	Flooding	Х	Х	Х
2.3	Wastewater Treatment Resilience	City of Branson	35	2	flooding			
1.4	Siren Maintenance	City of Forsyth	42	1	All	X	X	
1.8	New Safe Rooms	City of Forsyth	35	1	Thunderstorm, tornado		Х	
1.12	Safe Room Construction	City of Forsyth	36	1	Severe thunderstorm, tornado		Х	
1.13	Generator Installation	City of Forsyth	28	1	Thunderstorm, tornado	Х		
2.1	Flood Mitigation	City of Forsyth	31	2	Flooding	Х	X	Х
1.6	New Safe Rooms	City of Hollister	29	1	Thunderstorm, tornado		Х	
2.1	Flood Mitigation	City of Hollister	31	2	Flooding	X	X	X
2.3	Wastewater Treatment Resilience	City of Hollister	28	2	Drought, flooding			
1.5	New Safe Rooms	City of Merriam Woods	25	1	Tornado, thunderstorm		Х	
2.1	Flood Mitigation	City of Merriam Woods	14	2	Flooding	X	X	Х
1.4	Siren Maintenance	City of Rockaway Beach	47	1	All	X	Х	
2.1	Flood Mitigation	City of Rockaway Beach	43	2	Flooding	Х	Х	X
1.5	New Safe Rooms	Village of Bull Creek	21	1	Tornado, thunderstorm		Х	
2.1	Flood Mitigation	Village of Bull Creek	27	2	Flooding	Х	Х	Х
3.7	Village Hall Generator	Village of Bull Creek	43	3	Thunderstorm, tornado	Х		

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
3.8	Water Tower Generator	Village of Bull Creek	39	3	Thunderstorm, tornado	Х		
1.3	New Safe Rooms	Branson R-IV	38	1	All		Х	
1.3	New Safe Rooms	Forsyth R-II	35	1	All		Х	
1.4	Safe Place Awareness	Forsyth R-II	37	1	Tornado, thunderstorm			
1.3	New Safe Rooms	Hollister R-V	19	1	Tornado, thunderstorm		Х	
1.5	New Safe Room	Kirbyville R-VI	32	1	Tornado, thunderstorm		Х	
1.4	Safe Room Construction	Taneyville R-II	33	1	Tornado, thunderstorm		Х	
2.1	Wastewater Treatment Resilience	Taney County Regional Sewer	35	2	Dam failure, flooding, drought	Х		
3.5	Backup Generator	Western Taney County Fire Protection District	35	3	Flooding, thunderstorm	Х		
	Natural Systems Protection							
2.5	Streambank Restoration	Village of Bull Creek	30	2	Flooding	Х		Х
	Emergency Services							
1.3	NOAA Radio Purchase	Taney County	30	1	Tornado, thunderstorm, flooding, winter weather	Х		
2.3	Dam Emergency Partnership	Taney County	37	2	Dam failure, flood	X		
3.3	Debris Disposal	Taney County	31	3	Tornado, thunderstorm, winter weather, earthquake, dam failure			
2.4	Dam Emergency Partnership	City of Branson	32	2	Flooding, dam failure	Х		
3.3	Water Rescue	City of Branson	29	3	flooding			
3.4	Debris Disposal	City of Branson	28	3	Thunderstorm, flooding			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
1.5	NOAA Radio Purchase	City of Forsyth	34	1	All			
1.14	Water Rescue Response	City of Forsyth	33	1	Flooding			
2.3	Dam Emergency Partnership	City of Forsyth	44	2	Dam failure	Х		
2.7	Wildfire Risk Assessment	City of Forsyth	46	2	Wildfire			
2.8	Wildfire Response	City of Forsyth	44	2	Wildfire			
2.9	Firefighter Personnel	City of Forsyth	41	2	Wildfire			
3.4	Debris Disposal	City of Forsyth	32	3	Wildfire, thunderstorm			
3.5	Debris Disposal	City of Merriam Woods	30	3	Tornado, thunderstorm, winter weather, earthquake, dam failure			
3.3	Water Rescue	Western Taney Fire Protection	39	3	Flooding			
	Education and Outreach							
1.1	Awareness Program	Taney County	38	1	all			
1.2	Community Preparedness	Taney County	33	1	all			
1.4	Citizen NOAA Radios	Taney County	37	1	Tornado, thunderstorm, flood, winter weather			
1.5	Mobile Hazard Alert	Taney County	36	1	Tornado, thunderstorm, flood, winter weather, drought, heat			
1.7	Safe Place Awareness	Taney County	38	1	Tornado, thunderstorm			
1.8	Safe Room Education	Taney County	35	1	Tornado, thunderstorm			
1.9	Heating and Cooling Centers	Taney County	27	1	Extreme temperatures			
2.2	Utility Relocation	Taney County	36	2	Tornado, thunderstorm, winter weather	Х		
3.1	NIMS Training	Taney County	34	3	All			
3.2	911 Addressing	Taney County	46	3	All			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
3.5	Funding Identification	Taney County	37	3	All			
3.6	Infrastructure Coordination	Taney County	44	3	Flooding	Х	X	Х
1.2	Awareness Program	City of Branson	34	1	Flooding, thunderstorm, winter weather			
1.4	Citizen Preparedness	City of Branson	26	1	All			
1.6	Citizen NOAA Radios	City of Branson	32	1	Thunderstorm, tornado, winter weather, flooding			
1.7	Mobile Hazard Alert	City of Branson	32	1	All			
1.9	Safe Place Awareness	City of Branson	29	1	Thunderstorm, tornado			
1.10	Safe Room Education	City of Branson	28	1	Thunderstorm, tornado			
1.11	Heating and Cooling Centers	City of Branson	22	1	Extreme temperatures			
2.2	Utility Relocation	City of Branson	31	2	Thunderstorm, tornado, winter weather	X		
3.1	NIMS Training	City of Branson	27	3	All			
3.2	911 Addressing	City of Branson	31	3	All			
3.6	Funding Identification	City of Branson	40	3	All			
3.7	Infrastructure Coordination	City of Branson	29	3	Flooding	Х	Х	Х
1.1	Awareness Program	City of Forsyth	35	1	All			
1.6	Citizen NOAA Radios	City of Forsyth	31	1	All			
1.7	Mobile Hazard Alert	City of Forsyth	38	1	All			
1.9	Safe Place Awareness	City of Forsyth	38	1	All			
1.10	Safe Room Education	City of Forsyth	33	1	All			
1.11	Heating and Cooling Centers	City of Forsyth	33	1	Extreme temperatures			
1.15	Smoke Alarm	City of Forsyth	43	1	Wildfire			
2.2	Utility Relocation	City of Forsyth	35	2	All	Х		
3.1	NIMS Training	City of Forsyth	37	3	All			
3.2	911 Addressing	City of Forsyth	46	3	All			
3.3	Water Inventory	City of Forsyth	39	3	Drought, wildfire			
3.6	Funding Identification	City of Forsyth	31	3	All			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
3.7	Infrastructure Coordination	City of Forsyth	30	3	Flooding	X	Х	X
1.1	Awareness Program	City of Hollister	36	1	All			
1.3	Citizen Preparedness	City of Hollister	27	1	All			
1.4	Citizen NOAA Radios	City of Hollister	34	1	All			
1.5	Mobile Hazard Alert	City of Hollister	35	1	All			
1.7	Safe Place Awareness	City of Hollister	26	1	Thunderstorm, tornado			
1.8	Safe Room Education	City of Hollister	29	1	Thunderstorm, tornado			
2.2	Utility Relocation	City of Hollister	25	2	All			
3.1	NIMS Training	City of Hollister	25	3	All			
3.2	911 Addressing	City of Hollister	35	3	All			
3.4	Infrastructure Coordination	City of Hollister	29	3	Flooding	X	X	X
1.1	Awareness Program	City of Merriam Woods	14	1	All			
1.2	Citizen Preparedness	City of Merriam Woods	24	1	All			
1.4	Mobile Hazard Alert	City of Merriam Woods	36	1	Tornado, thunderstorm, flooding, winter weather, drought			
1.6	Safe Place Awareness	City of Merriam Woods	25	1	Tornado, thunderstorm			
1.7	Safe Room Education	City of Merriam Woods	33	1	Tornado			
2.2	Utility Relocation	City of Merriam Woods	35	2	Tornado, thunderstorm, winter weather			
2.3	Dam Emergency Partnership	City of Merriam Woods	24	2	Dam failure			
3.1	NIMS Training	City of Merriam Woods	29	2	All			
3.2	911 Addressing	City of Merriam Woods	27	27	All			
3.3	Water Inventory	City of Merriam Woods	29	3	Wildfire, drought			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
3.4	Water Rescue	City of Merriam Woods	26	3	flooding			
3.7	Funding Identification	City of Merriam Woods	30	3	All			
3.8	Infrastructure Coordination	City of Merriam Woods	29	3	Flood	Х	Х	X
1.1	Awareness Program	City of Rockaway Beach	37	1	All			
1.3	Citizen Preparedness	City of Rockaway Beach	43	1	All			
1.5	Mobile Hazard Alert	City of Rockaway Beach	44	1	All			
1.6	Safe Place Awareness	City of Rockaway Beach	47	1	Thunderstorm, tornado			
1.7	Safe Room Education	City of Rockaway Beach	46	1	Tornado, thunderstorm			
3.1	911 Addressing	City of Rockaway Beach	44	3	All			
1.1	Awareness Program	Village of Bull Creek	32	1	Flood, thunderstorm			
1.2	Citizen Preparedness	Village of Bull Creek	26	1	Flood, thunderstorm			
1.3	NOAA Radio Purchase	Village of Bull Creek	38	1	Flood, thunderstorm			
1.4	Mobile Hazard Alert	Village of Bull Creek	25	1	Flood, thunderstorm			
1.6	Safe Place Awareness	Village of Bull Creek	23	1	Tornado, thunderstorm			
1.7	Safe Room Education	Village of Bull Creek	43	1	Tornado, thunderstorm			
1.8	Heating and Cooling Centers	Village of Bull Creek	23	1	Extreme temperature			
3.1	NIMS Training	Village of Bull Creek	23	3	All			
3.2	911 Addressing	Village of Bull Creek	34	3	All			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
3.5	Funding Identification	Village of Bull Creek	24	3	All			
3.6	Infrastructure Coordination	Village of Bull Creek	29	3	Flooding	Х	Х	Х
1.1	Awareness Program	Branson R-IV	34	1	All			
1.2	Mitigation Education	Branson R-IV	25	1	All			
3.1	NIMS Training	Branson R-IV	20	3	All			
3.2	Funding Identification	Branson R-IV	38	3	All			
1.1	Awareness Program	Forsyth R-II	34	1	All			
1.2	Mitigation Education	Forsyth R-II	34	1	All			
2.1	Dam Emergency Partnership	Forsyth R-II	36	2	Dam failure, flooding			
3.1	NIMS Training	Forsyth R-II	30	3	All			
3.2	Funding Identification	Forsyth R-II	37	3	All			
1.1	Awareness Program	Hollister R-V	36	1	All			
1.2	Mitigation Education	Hollister R-V	41	1	All			
1.4	Safe Place Awareness	Hollister R-V	43	1	All			
1.5	NOAA Radio Purchase	Hollister R-V	48	1	Tornado, thunderstorm			
3.1	NIMS Training	Hollister R-V	15	3	All			
3.2	Funding Identification	Hollister R-V	13	3	All			
1.1	Awareness Program	Kirbyville R-VI	34	1	All			
1.2	Mitigation Education	Kirbyville R-VI	34	1	All			
1.3	NOAA Radio Purchase	Kirbyville R-VI	37	1	Tornado, thunderstorm, flooding, winter weather, drought, extreme temps			
1.4	Mobile Hazard Alert	Kirbyville R-VI	31	1	All			
2.1	Dam Emergency Partnership	Kirbyville R-VI	32	2	Dam failure			
3.1	NIMS Training	Kirbyville R-VI	31	3	All			
3.2	Funding Identification	Kirbyville R-VI	36	3	All			
1.1	Awareness Program	Taneyville R-II	29	1	Flooding, thunderstorm, tornado, winter weather			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
1.2	Mitigation Education	Taneyville R-II	35	1	Flooding, thunderstorm, tornado, winter weather			
1.3	Safe Place Awareness	Taneyville R-II	40	1	Thunderstorm, tornado			
3.1	NIMS Training	Taneyville R-II	34	3	Flooding, thunderstorm, tornado, winter weather			
3.2	Funding Identification	Taneyville R-II	35	3	Flooding, thunderstorm, tornado, winter weather			
1.1	Awareness Program	Taney County Regional Sewer	42	1	Tornado, flooding, thunderstorm, winter weather			
1.2	NOAA Radio Purchase	Taney County Regional Sewer	36	1	All			
1.3	Citizen NOAA Radio	Taney County Regional Sewer	34	1	All			
1.4	Mobile Hazard Alert	Taney County Regional Sewer	37	1	All			
1.5	Safe Place Awareness	Taney County Regional Sewer	35	1	Thunderstorm, tornado			
2.2	Dam Emergency Partnership	Taney County Regional Sewer	45	2	Dam failure			
3.1	NIMS Training	Taney County Regional Sewer	42	3	All			
3.2	Funding Identification	Taney County Regional Sewer	35	3	All			
1.1	Awareness Program	Western Taney Fire Protection	40	1	All			

#	Action	Jurisdiction	Priority	Goal Addressed	Hazards Addressed	Address Current Development	Continued Compliance with NFIP
1.3	NOAA Radio Purchase	Western Taney Fire Protection	38	1	Tornado, thunderstorm, flooding, winter weather, drought, extreme temps		
1.4	Dam Emergency Partnership	Western Taney Fire Protection	41	1	Dam failure		
3.1	NIMS Training	Western Taney Fire Protection	40	3	All		
3.2	Water Inventory	Western Taney Fire Protection	41	3	Wildfire, drought		
3.4	Funding Identification	Western Taney Fire Protection	40	3	All		

5 PLAN MAINTENANCE PROCESS

5 PLAN MAINTENANCE PROCESS		
5.1 Monitoring, Evaluating, and Updating the Plan	5.1	
5.1.1 Responsibility for Plan Maintenance		
5.1.2 Plan Maintenance Schedule		
5.1.3 Plan Maintenance Process	5.2	
5.2 Incorporation into Existing Planning Mechanisms	5.3	
5.3 Continued Public Involvement	5. <i>6</i>	

This chapter provides an overview of the overall strategy for plan maintenance and outlines the method and schedule for monitoring, updating, and evaluating the plan. The chapter also discusses incorporating the plan into existing planning mechanisms and how to address continued public involvement.

5.1 Monitoring, Evaluating, and Updating the Plan

44 CFR Requirement 201.6(c)(4): The plan maintenance process shall include a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

5.1.1 Responsibility for Plan Maintenance

The Mitigation Planning Committee (MPC) has served as an advisory body during the plan update process, but it is not a standing committee. Many MPC representatives and stakeholders are also represented on the Local Emergency Planning Committee (LEPC), as well as several other committees and groups in Barry County. The County Emergency Management Director oversees the LEPC and will be charged with reconvening the MPC, either as part of the already established LEPC or as a separate group, if necessary. However, it will be up to the County Commission, Office of Emergency Management, and the local jurisdictions to carry out the goals and actions outlined. Maintenance will involve agreement of the participating jurisdictions, including schools and special districts, to:

- Meet annually, and after a disaster event, to monitor and evaluate the implementation of the plan
- Act as a forum for hazard mitigation issues
- Disseminate hazard mitigation ideas and activities to all participants
- Pursue the implementation of high priority, low- or no-cost recommended actions
- Maintain vigilant monitoring of multi-objective, cost-share, and other funding opportunities to help the community implement the plan's recommended actions for which no current funding exists
- Monitor and assist in implementation and update of this plan
- Keep the concept of mitigation in the forefront of community decision making by identifying plan recommendations when other community goals, plans, and activities overlap, influence, or directly affect increased community vulnerability to disasters
- Report on plan progress and recommended changes to the County Board of Supervisors

- and governing bodies of participating jurisdictions
- Inform and solicit input from the public

The MPC is an advisory body and can only make recommendations to county, city, town, or district elected officials. Its primary duty is to see the plan successfully carried out and to report to the community governing boards and the public on the status of plan implementation and mitigation opportunities. Other duties include reviewing and promoting mitigation proposals, hearing stakeholder concerns about hazard mitigation, passing concerns on to appropriate entities, and posting relevant information in areas accessible to the public.

5.1.2 Plan Maintenance Schedule

It is recommended that the MPC will meet annually and after a state or federally declared hazard event as appropriate to monitor progress and update the mitigation strategy. The Taney County Emergency Management Director will be responsible for initiating the plan reviews and will invite members of the MPC to the meeting.

In coordination with all participating jurisdictions, a five-year written update of the plan will be submitted to the Missouri State Emergency Management Agency (SEMA) and FEMA Region VII per Requirement §201.6(c)(4)(i) of the Disaster Mitigation Act of 2000, unless disaster or other circumstances (e.g., changing regulations) require a change to this schedule

5.1.3 Plan Maintenance Process

Progress on the proposed actions can be monitored by evaluating changes in vulnerabilities identified in the plan. During future meetings, the MPC (or other designated responsible entity) should review changes in vulnerability identified as follows:

- Decreased vulnerability as a result of implementing recommended actions
- Increased vulnerability as a result of failed or ineffective mitigation actions
- Increased vulnerability due to hazard events,
- Increased vulnerability as a result of new development (and/or annexation)

Future 5-year updates to this plan will include the following activities:

- Consideration of changes in vulnerability due to action implementation
- Documentation of success stories where mitigation efforts have proven effective
- Documentation of unsuccessful mitigation actions and why the actions were not effective
- Documentation of previously overlooked hazard events that may have occurred since the previous plan approval
- Incorporation of new data or studies with information on hazard risks
- Incorporation of new capabilities or changes in capabilities
- Incorporation of growth data and changes to inventories
- Incorporation of ideas for new actions and changes in action prioritization

In order to best evaluate any changes in vulnerability as a result of plan implementation, the participating jurisdictions are advised to adopt the following process:

 Each proposed action in the plan identified an individual, office, or agency responsible for action implementation. This entity will track and report on an annual basis to the jurisdictional MPC (or designated responsible entity) member on action status. The entity will provide input on whether the action as implemented meets the defined objectives and is

- likely to be successful in reducing risk.
- If the action does not meet identified objectives, the jurisdictional MPC (or designated responsible entity) member will determine necessary remedial action, making any required modifications to the plan.

Changes will be made to the plan to remedy actions that have failed or are not considered feasible. Feasibility will be determined after a review of action consistency with established criteria, time frame, community priorities, and/or funding resources. Actions that were not ranked high but were identified as potential mitigation activities will be reviewed as well during the monitoring of this plan. Updating of the plan will be accomplished by written changes and submissions, as the (MPC or designated responsible entity) deems appropriate and necessary.

5.2 Incorporation into Existing Planning Mechanisms

44 CFR Requirement §201.6(c)(4)(ii): [The plan shall include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

Where possible, plan participants, including school and special districts, will use existing plans and/or programs to implement hazard mitigation actions. Based on the capability assessments of the participating jurisdictions, communities in Barry County will continue to plan and implement programs to reduce losses to life and property from hazards. This plan builds upon the momentum developed through previous and related planning efforts and mitigation programs and recommends implementing actions, where possible, through the following plans:

- General or master plans of participating jurisdictions
- Ordinances of participating jurisdictions
- County Emergency Operations Plan
- Capital improvement plans and budgets
- Other community plans within the County, such as water conservation plans, storm water management plans, and parks and recreation plans
- School and Special District Plans and budgets
- Other plans and policies outlined in the capability assessment sections for each jurisdiction in Chapter 2 of this plan.

Jurisdictional representatives involved in updating these existing planning mechanisms will be responsible for integrating the findings and actions of the mitigation plan, as appropriate. The EMD and MPC are also responsible for monitoring this integration and incorporation of the appropriate information into the next five-year update of the multi-jurisdictional hazard mitigation plan.

Additionally, it is recommended that after the annual review of the Hazard Mitigation Plan, the County Emergency Management Director will provide the updated Mitigation Strategy with the current status of each mitigation action to the County (Boards of Supervisors or Commissions) as well as all Mayors, City Clerks, and School District Superintendents. The Emergency Management Director will request that the mitigation strategy be incorporated, where appropriate, in other planning mechanisms.

Table 5.1 below lists the planning mechanisms by jurisdiction into which the Hazard Mitigation Plan will be integrated.

Jurisdiction	Planning Mechanisms	Integration Process for Previous Plan	Integration Process for Current Plan
Taney County	Comprehensive plan County emergency plan County mitigation plan Firewise Zoning ordinance Floodplain ordinance Subdivision ordinance Storm water ordinance NFIP Mutual aid agreements	Local emergency planning committee	Hazard mitigation plan County EOP Dam EAP NIMS resolutions County ordinances NFIP enforcement
City of Branson	Comprehensive plan Capital improvement plan Local emergency plan County emergency plan County mitigation plan Economic development plan Land use plan Flood mitigation assistance plan Zoning ordinance Building codes Floodplain ordinance Subdivision ordinance Tree trimming ordinance Storm water ordinance Drainage ordinance Site plan review requirements Landscape ordinance NFIP Mutual aid agreements	Local emergency operations plan City ordinance Fire codes	Strategic plan LEOP Hazard mitigation plan Media Fire department goals and objectives Budgeting Corps of engineers training and exercise requirements NFIP enforcement City codes
City of Forsyth	Comprehensive plan City emergency plan County emergency plan Economic development plan Transportation plan Land use plan Building codes Nuisance ordinance Storm water ordinance Drainage ordinance Sitte plan review requirements Historic preservation ordinance Landscape ordinance Mutual aid agreements	City council City ordinance	Emergency operations plan MDC wildfire preparedness plan Budgeting City severe weather plan Grant writing process Comprehensive plan Capital improvement plan School infrastructure plan Inspection process
City of Hollister	Comprehensive plan County mitigation plan Economic development plan Transportation plan Land use plan Critical facilities plan Zoning ordinance Building codes Floodplain ordinance Subdivision ordinance Tree trimming ordinance Drainage ordinance Site plan review requirements	City council	Emergency operations plan Building codes Comprehensive plan Capital improvement plan Budgeting process Planning commission

	Landscape ordinance		
	NFIP Mutual aid agreements		
City of Merriam Woods	City mitigation plan Zoning ordinance Building codes Floodplain ordinance Nuisance ordinance Drainage ordinance Site plan review requirements Mutual aid agreements	Board of aldermen City codes Social media	Social media Board of aldermen City codes
City of Rockaway Beach	Builder's plan Capital improvement plan City mitigation plan County mitigation plan Land use plan Flood mitigation assistance plan Watershed plan Critical facilities plan Zoning ordinance Building codes Floodplain ordinance Subdivision ordinance Tree trimming ordinance Nuisance ordinance Storm water ordinance Drainage ordinance Landscape ordinance NFIP Mutual aid agreements	Building code Local emergency operations plan Flood mitigation assistance Storm water/drainage ordinance NFIP	Building codes NFIP
Village of Bull Creek	City emergency plan Zoning ordinance Floodplain ordinance Subdivision ordinance Nuisance ordinance Site plan review requirements NIFP Mutual aid agreements	NFIP Floodplain ordinance	SMCOG Comprehensive plan Hazard mitigation plan Mailers Water department Building codes DNR compliance
Branson R-IV School District	Master plan Capital improvement plan School emergency plan Weapons policy	School emergency plan Social media/website	Budgeting
Forsyth R-III School District	Master plan Capital improvement plan School emergency plan Weapons policy	School emergency plan	Mitigation plan Budgeting process Emergency operations plan School plan Crisis plan
Hollister R-V School District	Master plan Capital improvement plan School emergency plan Weapons policy	School emergency plan	Emergency operations plan School board policy Comprehensive improvement plan Safety plan District safety committee
Kirbyville R-VI School District	Master plan Capital improvement plan School emergency plan Weapons policy	School emergency plan	District evaluations District emergency plan Communications NIMS training
Taneyville R-II School District	Master plan Capital improvement plan School emergency plan	School emergency plan	Safety plan Emergency operations plan Crisis plan

	Weapons policy		Comprehensive plan Budgeting process School infrastructure plan
Taney County Regional Sewer District	Community wildfire protection plan Hydrant flushing program Public education Mutual aid agreements	Capital improvement plan	Budgeting process Emergency operations plan
Western Taney County Fire Protection District	Capital improvement plan Public education Critical facilities inventory	Fire safety programs	Wildfire plan

5.3 Continued Public Involvement

44 CFR Requirement §201.6(c)(4)(iii): [The plan maintenance process shall include a] discussion on how the community will continue public participation in the plan maintenance process.

The hazard mitigation plan update process provides an opportunity to publicize success stories resulting from the plan's implementation and seek additional public comment. When the MPC reconvenes for the five-year update, the EMD will coordinate with all stakeholders participating in the planning process. Included in this group will be those who joined the MPC after the initial effort to update and revise the plan. Public notice will be posted, and public participation will be actively solicited, at a minimum, through available website postings and press releases to local media outlets.