HARRISON COUNTY

MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN





HARRISON COUNTY
BETHANY
BLYTHEDALE
CAINSVILLE
EAGLEVILLE
GILMAN CITY
NEW HAMPTON
RIDGEWAY
NORTH HARRISON R-III
RIDGEWAY R-V
SOUTH HARRISON COUNTY R-II
HARRISON COUNTY COMMUNITY HOSPITAL

CONTRIBUTORS

Harrison Hazard Mitigation Planning Committee

Jurisdictional Representatives

Name	Title	Department	Jurisdiction
Jack Hodge	Presiding Commissioner	County Commission	Harrison County
Caleb Jacobs	Harrison County EMD	County EMD	Harrison County
Jacob Denum	Fire Chief	Bethany Fire Department	Bethany
Lisa McGhee	Director of Quality & Safety	Administration	Harrison County Community Hospital
Lesa Petrov	City Clerk/Treasurer	City Government	Gilman City
Michael Fitzpatrick	Superintendent	Administration	Ridgeway R-V School District
Rebecca Deskins	City Clerk	City Government	City of Cainsville
Dr. Michael Estes	Superintendent	Administration	South Harrison R-III School District
Teresa Parson	City Clerk	City Government	City of Eagleville
Toni Storms	City Clerk	City Government	City of Ridgeway
Melissa Newman	Principal	Administration	North Harrison R-III School District
Skyler Crowder	Treasurer	City Government	City of Blythedale
Mike Tipton	Superintendent	Administration	North Harrison R-III School District
Lorrie Langfitt	Mayor	City Government	City of New Hampton

Stakeholder Representatives

Name	Title	Department	Agency/Organization
Jack Hodge	Presiding Commissioner	County Commission	Harrison County
Caleb Jacobs	Harrison County EMD	County EMD	Harrison County
Jacob Denum	Fire Department	Bethany Fire Department	City of Bethany
Larry Simpson	Not listed	Not listed	City of Bethany
Courtney Cross	LPN	HCCH	Harrison County Community Hospital
Lisa McGhee	Director of Quality & Safety	Administration	Harrison County Community Hospital
Lesa Petrov	City Clerk/Treasurer	City Government	City of Gilman City
Michael Fitzpatrick	Superintendent	Administration	Ridgeway R-V School District
Rebecca Deskins	City Clerk	City Government	City of Cainsville
Dr. Michael Estes	Superintendent	Administration	South Harrison School District
Teresa Parson	City Clerk	City Government	City of Eagleville
Toni Storms	City Clerk	City Government	City of Ridgeway
Schuyler Cox	Administrator	Administration	Harrison County Community Hospital
Melissa Newman	Principal	Administration	North Harrison R-III School District
Skyler Crowder	Treasurer	City Government	City of Blythedale
Mike Tipton	Superintendent	Administration	North Harrison R-III School District
Lorrie Langfitt	Mayor	City Government	City of New Hampton

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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. Harrison County and 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. This plan is an update of the previous plan that was approved by FEMA on May 3, 2021. 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 Harrison County Multi-Hazard Mitigation Plan is a multi-jurisdictional plan that covers the following jurisdictions that participated in the planning process:

- Unincorporated Harrison County
- City of Bethany
- Village of Blythedale
- City of Cainsville
- Village of Eagleville
- City of Gilman City
- City of New Hampton
- City of Ridgeway
- North Harrison R-III
- Ridgeway R-V
- South Harrison Co. R-II

The Cainsville R-I School District and Gilman City R-IV were invited to participate in the planning process but did not meet all the established requirements for official participation. When the future five-year update is developed for this plan, these school districts will be invited again to participate.

Harrison County and the participating jurisdictions above followed a plan update process using a methodology in accordance with FEMA guidance, which began with the formation of a Mitigation Planning Committee (MPC) comprised of representatives from Harrison County and participating jurisdictions. The MPC updated the risk assessment that identified and profiled hazards that pose a risk to Harrison 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 tornados 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:

- Goal 1: Eliminate loss of life, minimize injuries and reduce property damage caused by tornadoes, severe thunderstorms including high winds, hail, and lightning.

- Goal 2: Minimize property damage due to flooding, levee failure, and dam failure; including high hazard potential dams (HHPD).
- Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures, and wildfire.
- Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather.
- Goal 5: Minimize injuries and property damage due to seismic and/or geological events.

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	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
Structure and Infrastructure Projects								
County 2025.4	Snow removal	Harrison Co.	High	4	Severe winter weather	X	X	
County 2025.7	Structure grants for road and bridge upgrades	Harrison Co.	High	2	Flooding	X		
County 2025.8	Critical facilities backups	Harrison Co	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
County 2025.9	Construction upgrades to protect infrastructure	Harrison Co	High	2,5	Flooding Dam failure, Earthquake		X	
County 2025.10	Debris removal	Harrison Co	High	1,2,4,5	Flooding, Earthquakes, Severe thunderstorms, Severe winter weather, Tornado	X		
County 2025.12	Warning siren coverage	Harrison Co.	High	1	Tornado	X	X	
County 2025.13	Tree trimming maintenance	Harrison Co.	High	1,4	Severe thunderstorms, Severe winter weather, Tornado	X	X	
County 2025.15	Replace undersized culvert on Little Creek at Park Avenue.	Harrison Co.	High	2	Flooding	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CB 2025.3	Critical facilities backups	City of Bethany	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X	X	
CB 2025.4	Debris removal and regular brush clearing	City of Bethany	High	1,2,3,4,5	Flooding, Earthquakes, Severe thunderstorms, Severe winter weather, Tornado	X		
CB 2025.7	Storm shelters/Safe rooms	City of Bethany	High	1	Severe thunderstorms, tornado		X	
VB 2025.1	Critical facilities backup	Village of Blythdale	High	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
VB 2025.2	Debris removal and regular brush clearing	Village of Blythdale	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
VB 2025.4	Storm shelters/Safe rooms	Village of Blythdale	High	1	Severe thunderstorms, tornado		X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CC 2025.1	Critical facilities backup	City of Cainsville	High	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
CC 2025.2	Debris removal and regular brush clearing	City of Cainsville	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
CC 2025.4	Storm shelters/Safe rooms	City of Cainsville	High	1	Severe thunderstorms, tornado		X	
VE 2025.3	Critical facilities backup	Village of Eagleville	High	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
VE 2025.4	Debris removal and regular brush clearing	Village of Eagleville	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
VE 2025.5	Storm shelters/Safe rooms	Village of Eagleville	High	1	Severe thunderstorms, tornado		X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
GC 2025.2	Critical facilities backup	City of Gilman City	High	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
GC 2025.3	Debris removal and regular brush clearing	City of Gilman City	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
GC 2025.4	Storm shelters/Safe rooms	City of Gilman City	High	1	Severe thunderstorms, tornado		X	
CR 2025.4	Storm shelters/Safe rooms	City of Ridgeway	High	1	Severe thunderstorms, tornado		X	
CR 2025.2	Critical facilities backup	City of Ridgeway	High	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
CR 2025.3	Debris removal and regular brush clearing	City of Ridgeway	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CNH 2025.3	Critical facilities backup	City of New Hampton	Medium	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
CNH 2025.4	Debris removal and regular brush clearing	City of New Hampton	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
CNH 2025.5	Storm shelters/Safe rooms	City of New Hampton	High	1	Severe thunderstorms, tornado		X	
NHSD 2025.3	Storm shelters/Safe rooms	North Harrison R-III	High	1	Severe thunderstorms, tornado		X	
RSD 2025.3	Storm shelters/Safe rooms	Ridgeway R-V	High	1	Severe thunderstorms, tornado		X	
RSD 2025.3	Storm reenforced entryways	Ridgeway R-V	High	1	Severe thunderstorms, tornado		X	
SHSD 2025.3	Storm shelters/Safe rooms	South Harrison R-II	High	1	Severe thunderstorms, tornado		X	
Natural Systems Protection								
County 2025.13	Tree trimming maintenance	Harrison Co.	High	1,4	Severe thunderstorms, Severe winter weather, Tornado	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
VB 2025.2	Debris removal and regular brush clearing	Village of Blythdale	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	CC 2025.2
CC 2025.2	Debris removal and regular brush clearing	City of Cainsville	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
VE 2025.4	Debris removal and regular brush clearing	Village of Eagleville	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
GC 2025.3	Debris removal and regular brush clearing	City of Gilman City	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
CR 2025.3	Debris removal and regular brush clearing	City of Ridgeway	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
Planning and Regulation								
CB 2025.9	NFIP Participation	City of Bethany	Medium	2	Flooding		X	X
VB 2025.7	NFIP Participation	Village of Bythdale	Medium	2	Flooding		X	X
CC 2025.7	NFIP Participation	City of Cainsville	Medium	2	Flooding		X	X

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CNH 2025.7	NFIP Participation	City of New Hampton	Medium	2	Flooding		X	X
NHSD 2025.2	Mutual aid agreements	North Harrison R-III	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
RSD 2025.2	Mutual aid agreements	Ridgeway R-V	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
SHSD 2025.2	Mutual aid agreements	South Harrison R-II	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
HCCHD 2025.2	Mutual aid agreements	Harrison Co Community Hospital	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
Education and Outreach								
County 2025.2	Safety audits and self-inspection training for critical facilities	Harrison Co.	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X		

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
County 2025.3	Public mitigation education	Harrison Co.	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
County 2025.5	Public education for early warning systems	Harrison Co.	Medium	1,2,3,4,5	Flooding, Dam Failure, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
County 2025.14	Creation of a county-level municipality steering committee	Harrison Co	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CB 2025.1	Hazard education for those involved in land development	City of Bethany	High	1,2,3,4,5,	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire		X	
CB 2025.2	Weather Alerts	City of Bethany	High	1,2,3,4,5	Flooding, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
CB 2025.5	Mitigation education	City of Bethany	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
CB 2025.8	Weather spotter training	City of Bethany	High	1	Severe thunderstorm, Tornado	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
VB 2025.3	Mitigation education	Village of Bythdale	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
VB 2025.5	Weather Alerts	Village of Bythdale	High	1,2,3,4,5	Flooding, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
CC 2025.3	Mitigation education	City of Cainsville	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CC 2025.5	Weather Alerts	City of Cainsville	High	1,2,3,4,5	Flooding, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
VE 2025.1	Mitigation education	Village of Eagleville	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
VE 2025.2	Weather Alerts	Village of Eagleville	High	1,2,3,4,5	Flooding, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
GC 2025.1	Mitigation education	City of Gilman City	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
CR 2025.1	Mitigation education	City of Ridgeway	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
CNH 2025.1	Mitigation education	City of New Hampton	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CNH 2025.2	Weather Alerts	City of New Hampton	High	1,2,3,4,5	Flooding, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
NHSD 2025.1	Mitigation education	North Harrison R-III	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
RSD 2025.1	Mitigation education	Ridgeway R-V	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
SHSD 2025.1	Mitigation education	South Harrison R-II	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
HCCHD 2025.1	Mitigation education	Harrison Co. Community Hospital	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
Emergency Services								
County 2025.1	County-wide inventory of safe rooms and shelters	Harrison Co.	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X		

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
County 2025.7	Countywide disaster exercises and drills	Harrison Co.	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
County 2025.11	Mutual aid agreements	Harrison Co.	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
County 2025.12	Warning siren coverage	Harrison Co	High	1	Tornado	X	X	
CB 2025.6	Mutual aid agreements	City of Bethany	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
VB 2025.6	Vulnerable population identification	Village of Bythdale	High	3	Extreme temperatures	X	X	
CC 2025.6	Vulnerable population identification	City of Cainsville	High	3	Extreme temperatures	X	X	
VE 2025.6	Vulnerable population identification	Village of Eagleville	High	3	Extreme temperatures	X	X	
GC 2025.5	Vulnerable population identification	City of Gilman City	High	3	Extreme temperatures	X	X	
CNH 23025.6	Vulnerable population identification	City of New Hampton	High	3	Extreme temperatures	X	X	

PREREQUISITES

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

This plan has been reviewed by and adopted with resolutions or other documentation of adoption by all participating jurisdictions and schools/special districts. The documentation of each adoption is included in Appendix E, and a model resolution is included on the following page.

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

- Harrison County
- City of Bethany
- Village of Blythedale
- City of Cainsville
- Village of Eagleville
- City of Gilman City
- City of New Hampton
- City of Ridgeway
- North Harrison R-III
- Ridgeway R-V
- South Harrison R-II
- Harrison County Community Hospital

Model Resolution

(*LOCAL GOVERNING BODY/SCHOOL DISTRICT*), Missouri RESOLUTION NO. _____

A RESOLUTION OF THE (*LOCAL GOVERNING BODY /SCHOOL DISTRICT*) ADOPTING THE (*PLAN NAME*)

WHEREAS the (local governing body/school district) recognizes the threat that natural hazards pose to people and property within (local government); and

WHEREAS the (*local government/school district*) has prepared a multi-hazard mitigation plan, hereby known as (*title and date of mitigation plan*) in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

WHEREAS (*title and date of mitigation plan*) identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in (*local government/school district*) from the impacts of future hazards and disasters; and

WHEREAS adoption by the (*local governing body/school district*) demonstrates its commitment to hazard mitigation and achieving the goals outlined in the *Plan*.

NOW THEREFORE, BE IT RESOLVED BY THE (*LOCAL GOVERNMENT/SCHOOL DISTRICT*), in the State of Missouri, THAT:

Section 1. In accordance with (*local rule for adopting resolutions*), the (*local governing body/school district*) adopts the (title and date of mitigation plan). While content related to (*local government/school district*) may require revisions to meet the plan approval requirements, changes occurring after adoption will not require (*local government/school district*) to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of_____in favor and__against, and__abstaining, this_____day of _____,_____.

By (Sig): _____
Print name: _____

ATTEST:
By (Sig.): _____
Print name: _____

APPROVED AS TO FORM:
By (Sig.): _____
Print name: _____

2 PLANNING AREA PROFILE AND CAPABILITIES

2 PLANNING AREA PROFILE AND CAPABILITIES 2.1

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2.1 HARRISON COUNTY PLANNING AREA PROFILE

Figure 2.1. Map of Harrison County

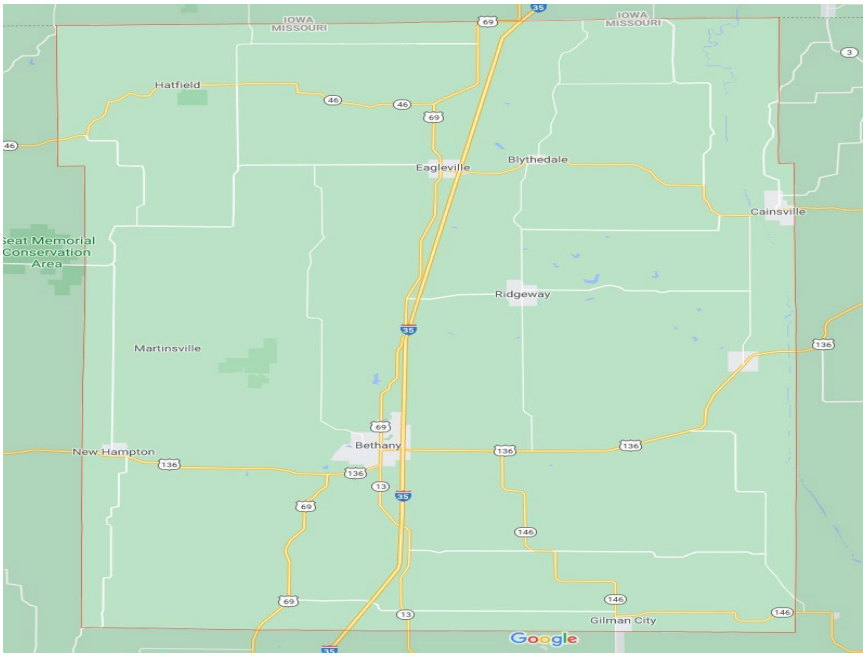
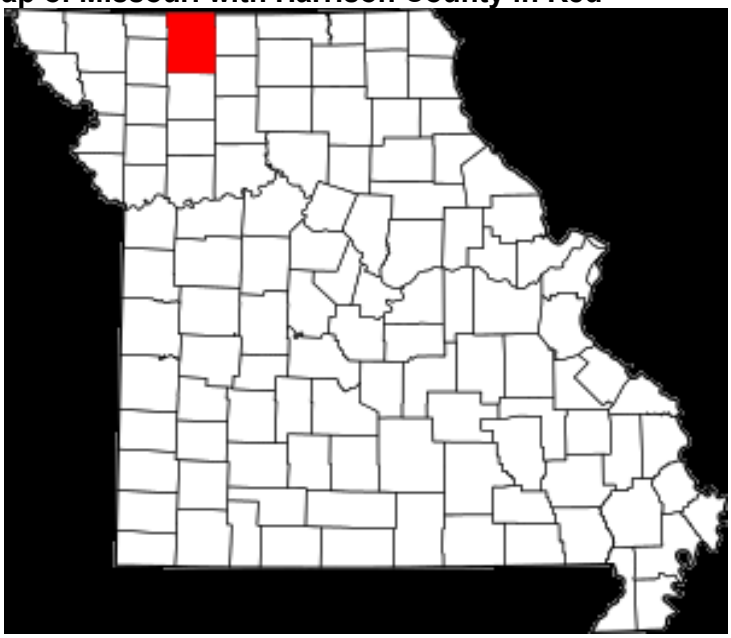


Figure 2.2. Map of Missouri with Harrison County in Red



According to the US Census, the population estimate for Harrison County as of American Community Survey for 2023 is 8,198 persons compared to the 2020 Census population of 8,157; a 0.5% increase estimate in the three-year period. The increase in population is slightly above the

growth estimate for the State of Missouri for the same period of 0.2% and slightly behind the Nation at 1.0%.

According to the latest Census data, the 2023 ACS 5-year estimates the median household income in Harrison County was $53,364, in the State of Missouri it was $68,545, and nationally was $77,719. These figures are all well above the 2010 values, with increases of more than 35% for Harrison County

In Harrison County the median house value has increased from $68,400 in 2010 to $107,400 per the ACS 5-year survey. In Missouri the house value was $136,700 in 2010 and was $233,600 per the ACS of 2023. Nationally the median house value was $175,700 in 2010 and was $340,200.

The following table contains this data, as well as the percentage change for both house values and median household income.

Table 2.1. Median House Value and Median Household Income 2010 & 2023

Location	Median House Value 2010	Median House Value 2023	% Change	Median Household Income 2010	Median Household Income 2023	% Change
Harrison County	$68,400	$107,400	57.02%	$39,342	$53,364	35.64%
Missouri	$136,700	$233,600	35.64%	$47,764	$68,545	43.51%
United States	$175,700	$340,200	93.62%	$53,482	$77,719	45.32%

Source: US Census Bureau and ACS 2023 5-year Survey

Table 2.2. Population of Harrison County under 5 and over 65

Jurisdiction	Population Under 5	% Population Under 5	Population 65 and over	% Population 65 and over
Harrison County	468	5.7%	1897	23.3%
City of Bethany	145	5.0%	726	24.9%
Village of Blythedale	19	9.0%	54	25.6%
City of Cainsville	24	8.5%	58	20.5%
Village of Eagleville	15	5.5%	59	21.5%
Gilman City	28	8.5%	69	21.0%
Village of Mt. Moriah	2	2.7%	19	25.3%
City of New Hampton	13	5.7%	51	22.4%
City of Ridgeway	23	6.2%	86	23.1%

Source: U.S. Census Bureau, Profile of General Population and Housing Characteristics (DP1)

2.1.1 Geography, Geology and Topography

Harrison County has a total of 723 square miles of land and approximately 3.9 square miles of water, as reported by the U.S. Census Bureau. The County is a mix of residents living in unincorporated and incorporated areas. The City of Bethany is the largest with a population of 3,164, the City of Gilman City has a population of 355, the Village of Eagleville has a population of 350, the City of Cainsville has a population of 207, the City of New Hampton has a population of 302, according to the 2023 Population Estimates Program from the U.S. Census Bureau.

The remaining residents of Harrison County live in unincorporated areas. The county is rural and agriculture is the main enterprise in the county. Crops and pasture make up the bulk of the land cover, but there are some forested areas on the floodplains along major creeks and rivers.

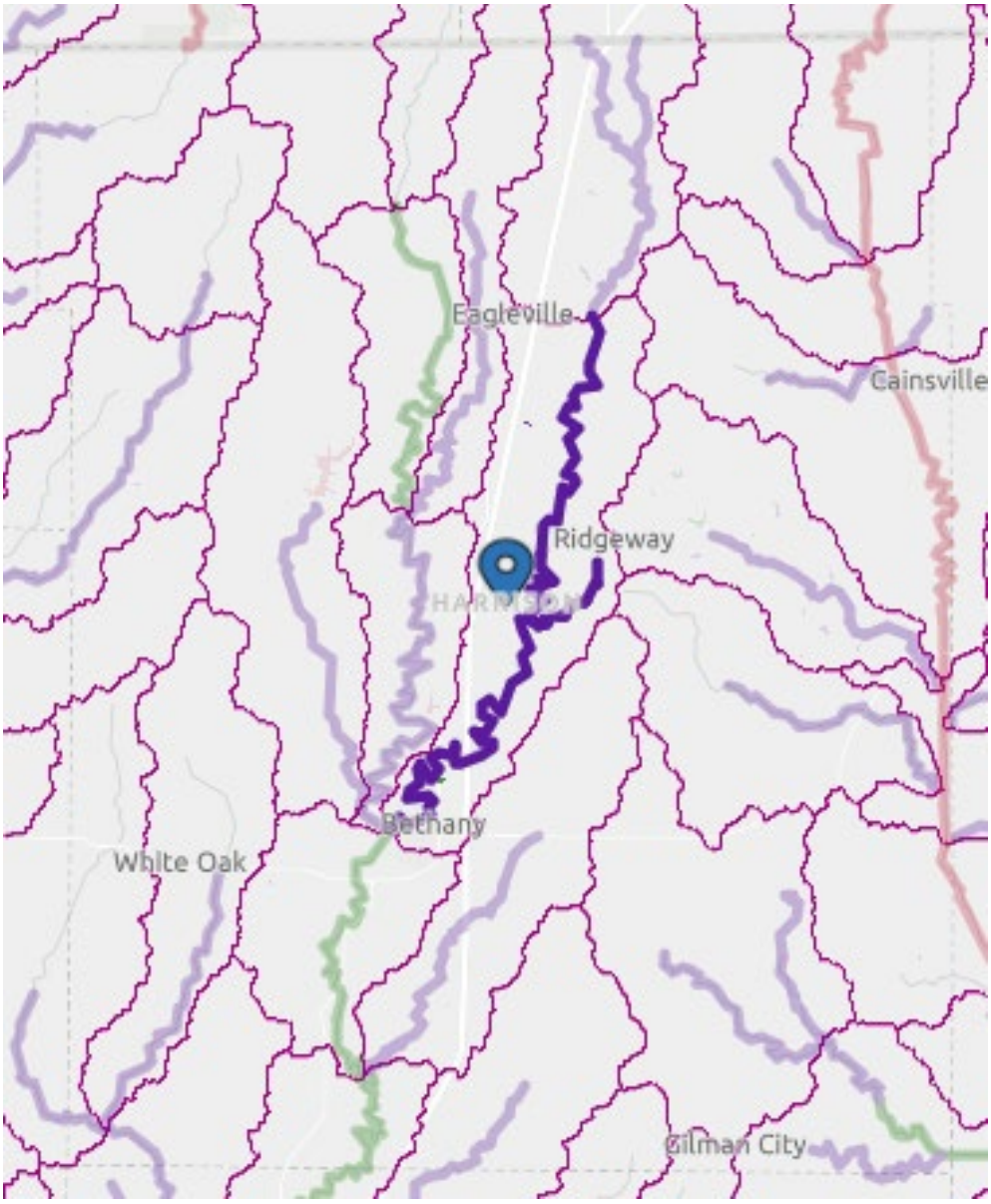
The East Fork Big Creek Watershed runs north and south down the middle portion of the county. The West Fork Big Creek flows diagonally through the County from north to south down the western portion of the county. The East Fork Big Creek runs from north to south down the eastern portion of the county. West Fork Big Creek and East Fork Big Creek come together on the west side of Bethany to form Big Creek. Panther Creek begins south of Blythedale and north of Ridgeway and runs southeast to Mount Moriah then continues south into the northwest corner of Grundy County. Sampson Creek begins south of Martinsville and runs through New Hampton, and crosses the southwestern border of the County into Gentry County, only to snake back into the southwest corner of Harrison County and continuing south into Daviess County.

There are five soil associations found in Harrison County. The Shelby-Adair-Zook association occurs throughout the County, covering approximately 30% of the County and is comprised of deep, nearly level to moderately steep, moderately well drained to poorly drained soils that formed in glacial till and alluvial sediment. The Gara-Pershing-Armstrong association covers approximately 20% of the County and is comprised of deep, gently sloping to moderately steep, moderately well drained and somewhat poorly drained soils that formed in loess and glacial till.

The Grundy-Lagonda association makes up about 20% of the County and is comprised of deep, gently sloping and moderately sloping, somewhat poorly drained soils that formed in loess and in thin loess over glacial till. The Lamoni-Shelby-Zook association makes up about 17% of the county and is comprised of deep, nearly level to strongly sloping, moderately well drained to poorly drained soils that formed in glacial till and alluvial sediment. The Nodaway-Zook association makes up about 13% of the County and is comprised of deep, nearly level, moderately well drained and poorly drained soils that formed in alluvial sediment.

The following watershed map for Harrison County shows the various watersheds within the county. The key following the map shows the conditions of the waterways within the county. The figure indicates there is one waterway that the condition is impaired, it is the Thompson River, which runs from the north to the south on the eastern side of the county.

Figure 2.3 Watershed Map for Harrison County



Source: EPA website; [How's My Waterway - Community]

2.1.2 Climate

Harrison County, Missouri experiences a humid continental climate characterized by hot summers and cold winters. The county's climate is typical of inland Missouri, with frequent temperature changes and potential for both extended cold spells and hot periods. Rainfall averages around 39 inches per year. Snowfall averages around 20 inches annually.

Temperatures peak during the summer months with an average high of 86.6 in July, Low

temperatures peak during the month of January with a reading of 15.6 degrees. The following figures and tables show the climate of Harrison County.

Table 2.3. Climate normal for Bethany Missouri (1991-2020)

Month	Total Precipitation Normal (inches)	Mean Max Temperature Normal (°F)	Mean Min Temperature Normal (°F)	Mean Avg Temperature Normal (°F)
January	1.00	34.0	15.6	24.8
February	1.58	39.0	19.4	29.2
March	2.07	51.6	29.6	40.6
April	4.01	62.7	40.6	51.6
May	5.53	72.7	51.2	61.9
June	5.19	82.2	61.7	71.9
July	4.96	86.6	66.1	76.4
August	4.20	85.3	63.7	74.5
September	3.90	77.7	55.0	66.4
October	3.05	65.3	43.1	54.2
November	1.98	50.7	30.8	40.7
December	1.66	38.4	21.0	29.7
Annual	39.13	62.2	41.5	51.8

2.1.3 Population/Demographics

In 2023, Harrison County, Missouri had a population of 8,198. The median age was 40.9, and the median household income was $53,364 The county's racial composition is predominantly White (94%), with small percentages of Black, Hispanic, and other ethnicities according to Census Reporter and U.S. Census Bureau.
The median property value in 2023 was $107,400. The homeownership rate was 73.1%.
Most residents commute to work alone, with an average commute time of 23.6 minutes.

Table 2.4. Harrison County Population 2010-2023 by Jurisdiction

Jurisdiction	2010 Population	2020 Population	2023 Annual Population Estimate or ACS Population	# Change (2010-2023)	% Change (2010-2023)
Harrison County	8,957	8,157	8,198	-759	-8.5%
Harrison County Unincorporated	3,641	3,469	2,809	-832	-22.9%
City of Bethany	3,292	2,915	3,164	-128	-3.9%
Village of Blythedale	193	211	357	164	-85.0%
City of Cainsville	290	283	207	-83	-28.6%
Village of Eagleville	316	275	350	34	-10.8%
Gilman City	383	329	355	-28	-7.3%
Village of Mt. Moriah	87	75	129	42	-48.2%
City of New Hampton	291	228	302	11	3.8%
City of Ridgeway	464	372	525	61	13.1%

Source: U.S. Bureau of the Census, Decennial Census, annual population estimates/ 5-Year American Community Survey 2023;
*population includes the portions of these cities in adjacent counties

Table 2.5. Unemployment, Poverty, Education, and Language Percentage Demographics, Harrison County, Missouri

Jurisdiction	Total in Labor Force	Percent of Population Unemployed	Percent of Families Below the Poverty Level	Percentage of Population (High School graduate)	Percentage of Population (Bachelor's degree or higher)	Percentage of population with spoken language other than English
Harrison County	3,354	3.3%	16.1%	43.8%	10.8%	1.6%
City of Bethany	3,164	1.6%	14.5%	37.8%	15.5%	1.8%
Village of Blythedale	357	0.8%	16.0%	69.6%	5.3%	0.0%
City of Cainsville	207	1.8%	14.5%	51.3%	6.4%	0.0%
Village of Eagleville	350	2.6%	20.7%	37.6%	9.7%	0.6%
Gilman City	355	0.7%	18.7%	42.8%	6.6%	0.3%
Village of Mt. Moriah	129	3.2%	28.7%	60.7%	11.9%	0.0%
City of New Hampton	302	1.1%	20.5%	49.4%	10.8%	2.5%
City of Ridgeway	525	6.1%	25.7%	44.7%	4.1%	1.2%
State of Missouri	3,195,524	2.2%	12.0%	29.4%	20.2%	7.0%
Nationwide	173,038,795	2.7%	12.5%	25.9%	21.8%	22.5%

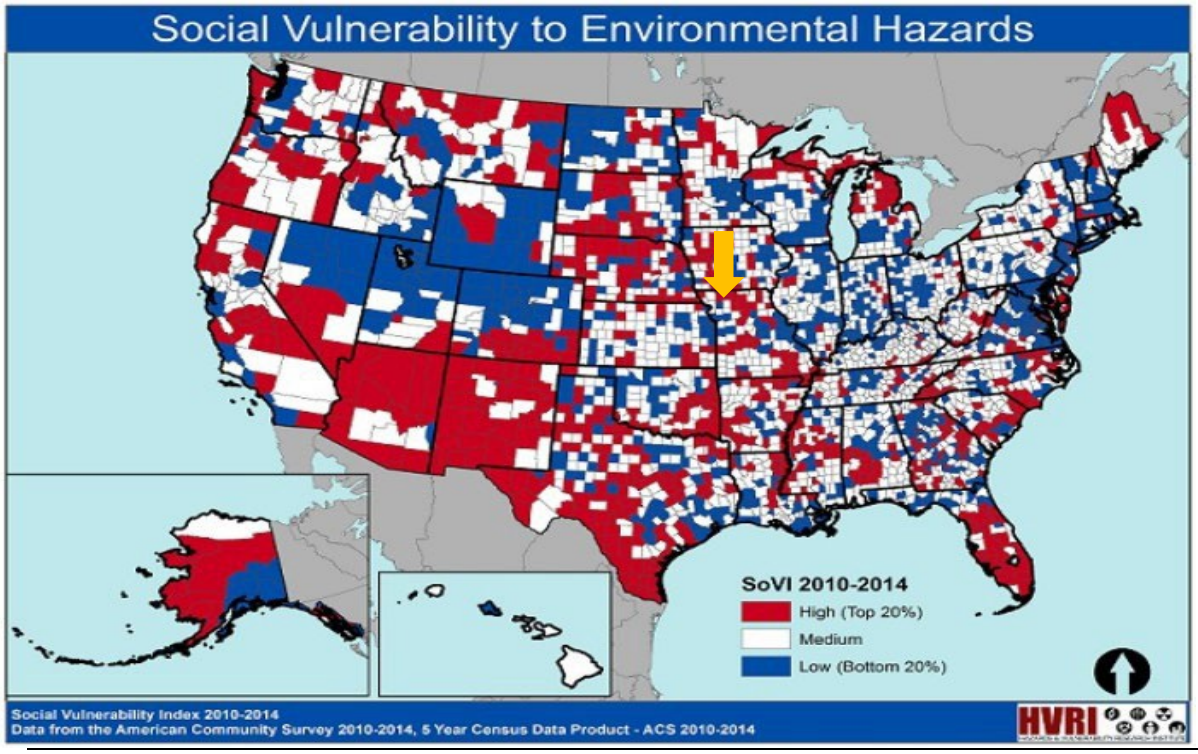
Source: U.S. Census, 2023 American Community Survey, 5-year Estimates.

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.

To visually compare the SoVI® scores at a state and national level, they are mapped using quantiles. Scores in the top 20% of the United States are more vulnerable counties (red) and scores in the bottom 20% of the United States indicate the least vulnerable counties (blue). A low SoVI score number means that the county is more resilient to hazard events, and a high SoVI score number means the county is less resilient. Harrison County has a high SoVI score.

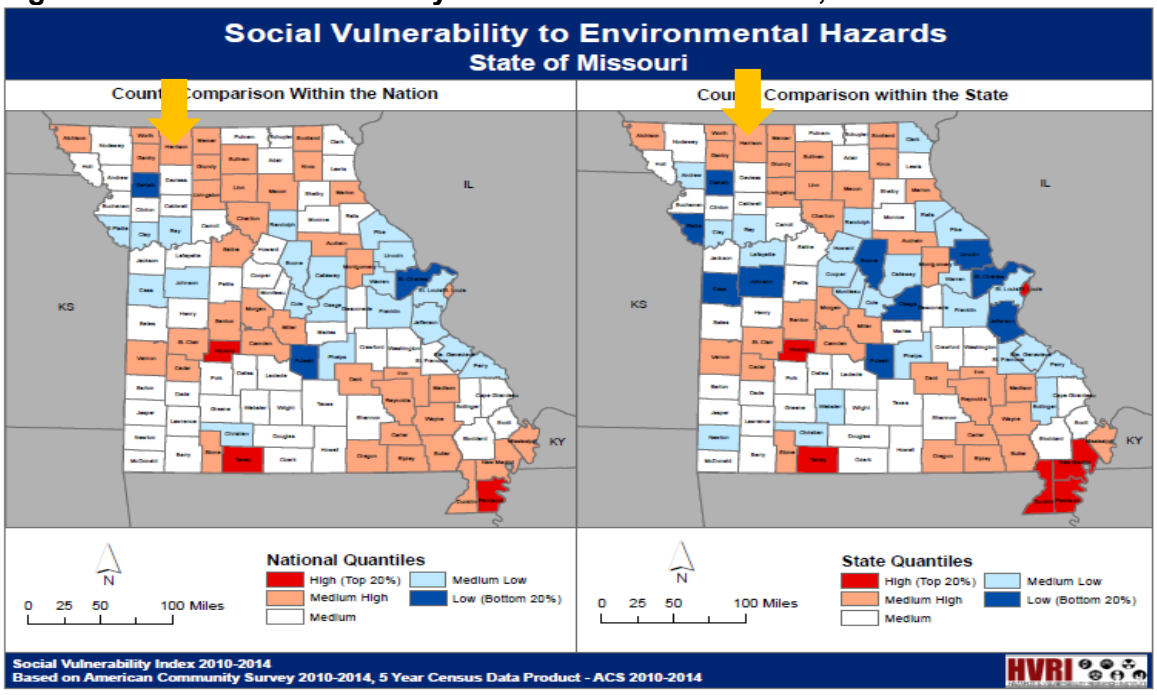
The figure below shows the SoVI scores for Harrison County from 2010 - 2014 at the national level Harrison is rated high risk; while at the state level Harrison County is rated Medium-High.

Figure 2.4 SoVI Scores for Harrison County



Source : http://artsandsciences.sc.edu/geog/hvri/sovi%C2%AE-0

Figure 2.5 Social Vulnerability to Environmental Hazards, State of Missouri



Source: http://artsandsciences.sc.edu/geog/hvri/sites/sc.edu.geog.hvri/files/attachments/MO_1014.pdf

2.1.4 Occupations

In Harrison County, Missouri, the most prevalent employment sectors are Health Care & Social Assistance, Retail Trade, and Educational Services. Within these sectors, common occupations include Registered Behavior Technicians (RBTs), Customer Service Representatives, Retail

Cashiers, and various roles in the healthcare industry such as nurses and support staff. Additionally, there are opportunities in construction, manufacturing, and agriculture.

Table 2.6. Occupation Statistics, Harrison County, Missouri

Place	Management, Business, Science, and Arts Occupations	Service Occupations	Sales and Office Occupations	Natural Resources, Construction, and Maintenance Occupations	Production, Transportation, and Material Moving Occupations
Harrison County	1,118	585	643	379	629
City of Bethany	406	295	252	56	252
Village of Blythedale	120	35	14	6	40
City of Cainsville	34	19	21	19	15
Village of Eagleville	45	18	40	9	40
Gilman City	54	24	17	24	21
Village of Mt. Moriah	18	24	7	0	11
City of New Hampton	29	21	6	14	20
City of Ridgeway	46	33	23	11	40

Source: U.S. Census, 2023 American Community Survey, 5-year Estimates.

2.1.5 Agriculture

In 2022, Harrison County, Missouri had 987 farms, covering 403,261 acres, with an average farm size of 409 acres. The total market value of products sold was $135.39 million. Key crops included soybeans, corn, and hay, with a total of 95,028 acres of soybeans and 58,248 acres of corn. The county also had 27,015 cattle and calves.

The following figures are the 2022 Census of Agriculture for Harrison County. They provide further information from the 2022 Agriculture Census for Harrison County.

Figure 2.6 USDA Census Profile for Harrison County (pg. 1)

2022 CENSUS OF AGRICULTURE *County Profile*





Harrison County
Missouri

Total and Per Farm Overview, 2022 and change since 2017

	2022	% change since 2017
Number of farms	987	+1
Land in farms (acres)	403,261	+3
Average size of farm (acres)	409	+2
Total	($)	
Market value of products sold	135,390,000	+46
Government payments	9,911,000	-4
Farm-related income	9,941,000	+30
Total farm production expenses	90,170,000	+9
Net cash farm income	65,073,000	+134
Per farm average	($)	
Market value of products sold	137,173	+44
Government payments [a]	16,856	+7
Farm-related income [a]	23,391	+52
Total farm production expenses	91,357	+7
Net cash farm income	65,930	+131

1 Percent of state agriculture sales

Share of Sales by Type (%)

Crops	81
Livestock, poultry, and products	19

Land in Farms by Use (acres)

Cropland	278,734
Pastureland	63,960
Woodland	42,660
Other	17,907

Acres irrigated: (D)

(D)% of land in farms

Land Use Practices (% of farms)

No till	23
Reduced till	12
Intensive till	10
Cover crop	4

Farms by Value of Sales

	Number	Percent of Total [b]
Less than $2,500	459	47
$2,500 to $4,999	63	6
$5,000 to $9,999	66	7
$10,000 to $24,999	99	10
$25,000 to $49,999	109	11
$50,000 to $99,999	73	7
$100,000 or more	118	12

Farms by Size

	Number	Percent of Total [b]
1 to 9 acres	32	3
10 to 49 acres	158	16
50 to 179 acres	344	35
180 to 499 acres	268	27
500 to 999 acres	105	11
1,000+ acres	80	8

USDA
United States Department of Agriculture
National Agricultural Statistics Service
www.nass.usda.gov/AgCensus

Figure 2.7 USDA Census Profile for Harrison County (pg. 2)

Harrison County
Missouri, 2022
Page 2

2022 CENSUS OF AGRICULTURE *County Profile*

Market Value of Agricultural Products Sold

	Sales ($1,000)	Rank in State [c]	Counties Producing Item	Rank in U.S. [c]	Counties Producing Item
Total	**135,390**	**47**	**114**	**1,160**	**3,078**
Crops	**109,889**	**22**	**114**	**772**	**3,074**
Grains, oilseeds, dry beans, dry peas	106,675	21	109	592	2,917
Tobacco	-	-	2	-	267
Cotton and cottonseed	-	-	7	-	647
Vegetables, melons, potatoes, sweet potatoes	(D)	94	112	(D)	2,831
Fruits, tree nuts, berries	(D)	89	112	(D)	2,711
Nursery, greenhouse, floriculture, sod	45	70	104	1,584	2,660
Cultivated Christmas trees, short rotation woody crops	-	-	36	-	1,274
Other crops and hay	3,131	26	114	1,043	3,035
Livestock, poultry, and products	**25,501**	**67**	**114**	**1,583**	**3,076**
Poultry and eggs	57	81	113	1,593	3,027
Cattle and calves	19,076	51	114	868	3,047
Milk from cows	-	-	84	-	1,770
Hogs and pigs	5,877	42	111	489	2,814
Sheep, goats, wool, mohair, milk	350	22	111	569	2,967
Horses, ponies, mules, burros, donkeys	37	87	113	1,951	2,907
Aquaculture	-	-	36	-	1,190
Other animals and animal products	105	23	106	948	2,909

Producers [d]	**1,816**
Sex	
Male	1,205
Female	611
Age	
<35	198
35 – 64	852
65 and older	766
Race	
American Indian/Alaska Native	5
Asian	2
Black or African American	-
Native Hawaiian/Pacific Islander	-
White	1,794
More than one race	15
Other characteristics	
Hispanic, Latino, Spanish origin	7
With military service	191
New and beginning farmers	532

Percent of farms that:

Have internet access	**67**
Farm organically	**-**
Sell directly to consumers	**1**
Hire farm labor	**18**
Are family farms	**94**

Top Crops in Acres [e]

Soybeans for beans	95,028
Corn for grain	58,248
Forage (hay/haylage), all	37,095
Wheat for grain, all	528
Corn for silage/greenchop	235

Livestock Inventory (Dec 31, 2022)

Broilers and other meat-type chickens	510
Cattle and calves	27,015
Goats	537
Hogs and pigs	(D)
Horses and ponies	487
Layers	1,523
Pullets	230
Sheep and lambs	1,031
Turkeys	38

[a] Average per farm receiving. [b] May not add to 100% due to rounding. [c] Among counties whose rank can be displayed. [d] Data collected for a maximum of four producers per farm. [e] Crop commodity names may be shortened; see full names at www.nass.usda.gov/go/cropnames.pdf. [f] Position below the line does not indicate rank. (D) Withheld to avoid disclosing data for individual operations. (NA) Not available. (Z) Less than half of the unit shown. (-) Represents zero.

USDA is an equal opportunity provider, employer, and lender.

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

According to FEMA open data website there have been no hazard mitigation projects in Harrison County

2.1.7 FEMA Public Assistance (PA) Grants in Planning Area

In the last 25 years, 2000-2025, 9 different federally declared disasters have impacted Harrison County resulting in $6,213,499.05 worth of impacts to the county.
On average since 2000 Harrison County has had a federally declared disaster every 1.8 years.

Roads and Bridges were the commonly damaged items with 138 projects, which lead to $2,811,826.21 or more than 53% of the total in damages. Emergency Protective Measures was the second highest category with 15 projects totaling $213,280.52

Table 2.7. FEMA PA Grants in Harrison County from 1993-2024

Disaster Declaratio	Project Type	Project Size	Project Total
1708	Roads and Bridges	Small	$7,535.21
1708	Roads and Bridges	Small	$6,925.00
1708	Roads and Bridges	Small	$1,392.50
1708	Roads and Bridges	Small	$18,621.80
1708	Roads and Bridges	Small	$2,488.40
1708	Roads and Bridges	Small	$10,665.96
1708	Roads and Bridges	Small	$6,580.40
1708	Roads and Bridges	Small	$8,198.74
1708	Roads and Bridges	Small	$1,600.00
1708	Roads and Bridges	Small	$1,100.00
1708	Roads and Bridges	Small	$10,785.20
1708	Roads and Bridges	Small	$8,536.00
1708	Roads and Bridges	Small	$37,560.00
1708	Debris Removal	Small	$7,374.08
1708	Roads and Bridges	Small	$10,218.25
1708	Emergency Protective Measures	Small	$1,722.80
1708	Roads and Bridges	Small	$3,327.06
1708	Roads and Bridges	Large	$292,877.04
1708	Roads and Bridges	Small	$4,465.61
1708	Roads and Bridges	Small	$9,517.88
1708	Roads and Bridges	Small	$5,000.00
1708	Roads and Bridges	Small	$20,614.45
1708	Roads and Bridges	Small	$8,401.68
1708	Debris Removal	Small	$2,484.32
1708	Roads and Bridges	Small	$3,912.00
1708	Roads and Bridges	Small	$6,158.32
1708	Roads and Bridges	Small	$12,234.61
1708	Roads and Bridges	Small	$3,040.00
1708	Roads and Bridges	Small	$6,379.44
1708	Parks, Recreational Facilities, and Other	Small	$2,777.10
1708	Roads and Bridges	Small	$10,880.00
1708	Roads and Bridges	Small	$1,200.00
1708	Roads and Bridges	Small	$12,625.00

1708	Roads and Bridges	Small	$4,713.50
1708	Roads and Bridges	Small	$7,977.68
1708	Roads and Bridges	Small	$5,928.60
1736	Emergency Protective Measures	Small	$6,987.80
1736	Debris Removal	Small	$8,209.81
1736	Utilities	Small	$14,026.28
1736	Utilities	Small	$5,034.55
1736	Debris Removal	Small	$36,704.54
1773	Utilities	Small	$1,000.00
1773	Roads and Bridges	Small	$5,546.18
1773	Roads and Bridges	Small	$1,396.65
1773	Roads and Bridges	Small	$16,437.90
1773	Roads and Bridges	Small	$11,643.15
1773	Roads and Bridges	Small	$14,512.16
1773	Roads and Bridges	Small	$12,364.29
1773	Roads and Bridges	Large	$419,626.85
1773	Roads and Bridges	Small	$17,747.33
1773	Roads and Bridges	Small	$12,843.05
1773	Utilities	Small	$9,275.61
1773	Utilities	Small	$53,498.92
1773	Roads and Bridges	Small	$7,495.35
1773	Roads and Bridges	Small	$4,485.42
1773	Roads and Bridges	Small	$16,103.27
1773	Roads and Bridges	Small	$10,356.80
1773	Roads and Bridges	Small	$11,327.72
1773	Roads and Bridges	Small	$2,184.34
1773	Roads and Bridges	Small	$5,083.73
1773	Roads and Bridges	Small	$3,583.65
1773	Roads and Bridges	Small	$7,767.83
1773	Utilities	Small	$3,093.70
1773	Roads and Bridges	Small	$5,200.75
1773	Roads and Bridges	Small	$10,141.60
1773	Roads and Bridges	Small	$6,646.26
1773	Utilities	Small	$5,565.67
1773	Roads and Bridges	Small	$9,441.04
1773	Roads and Bridges	Small	$7,563.40
1773	Roads and Bridges	Small	$4,119.17
1773	Utilities	Small	$6,128.96
1773	Roads and Bridges	Small	$7,435.04
1773	Roads and Bridges	Small	$3,503.59
1773	Roads and Bridges	Small	$5,541.26
1773	Utilities	Small	$31,261.54
1773	Roads and Bridges	Small	$14,903.38
1773	Roads and Bridges	Small	$8,939.32
1773	Roads and Bridges	Small	$3,818.72
1773	Roads and Bridges	Small	$9,254.00
1773	Roads and Bridges	Small	$49,468.41
1773	Roads and Bridges	Small	$39,517.80
1773	Roads and Bridges	Small	$3,543.53
1773	Roads and Bridges	Small	$2,912.14
1773	Roads and Bridges	Small	$10,575.04
1773	Roads and Bridges	Small	$4,278.00
1773	Roads and Bridges	Small	$1,985.01
1773	Roads and Bridges	Small	$7,182.60
1822	Emergency Protective Measures	Small	$7,557.35
1822	Emergency Work Donated Resources	Small	$330.60
1934	Utilities	Small	$3,035.87
1934	Utilities	Small	$4,458.25

1934	Roads and Bridges	Small	$3,149.00
1934	Roads and Bridges	Small	$7,407.80
1934	Roads and Bridges	Small	$6,829.50
1934	Roads and Bridges	Small	$1,720.21
1934	Roads and Bridges	Small	$9,195.00
1934	Roads and Bridges	Small	$2,041.50
1934	Roads and Bridges	Small	$1,190.00
1934	Roads and Bridges	Small	$9,409.55
1934	Roads and Bridges	Small	$3,365.56
1934	Roads and Bridges	Small	$14,444.00
1934	Roads and Bridges	Small	$17,230.00
1934	Roads and Bridges	Small	$7,815.90
1934	Roads and Bridges	Small	$8,774.86
1934	Utilities	Small	$6,785.75
1934	Utilities	Small	$39,466.59
1934	Roads and Bridges	Small	$2,701.60
1934	Roads and Bridges	Small	$7,881.44
1934	Roads and Bridges	Small	$1,628.88
1934	Roads and Bridges	Small	$2,041.68
1934	Roads and Bridges	Small	$6,086.13
1934	Roads and Bridges	Small	$10,216.00
1934	Roads and Bridges	Small	$5,889.00
1934	Roads and Bridges	Small	$44,179.50
1934	Roads and Bridges	Small	$10,149.50
1934	Roads and Bridges	Small	$3,663.00
1934	Utilities	Small	$8,497.16
1934	Roads and Bridges	Small	$19,444.19
1934	Roads and Bridges	Small	$11,625.24
1934	Roads and Bridges	Small	$11,545.34
1934	Roads and Bridges	Small	$26,709.89
1934	Roads and Bridges	Small	$4,980.50
1934	Roads and Bridges	Small	$3,360.00
1934	Roads and Bridges	Small	$5,143.00
1934	Utilities	Small	$1,743.13
1934	Roads and Bridges	Small	$1,424.80
1934	Roads and Bridges	Small	$4,486.60
1934	Roads and Bridges	Small	$6,743.70
1934	Roads and Bridges	Small	$1,145.20
1934	Roads and Bridges	Small	$8,071.22
1934	Roads and Bridges	Small	$26,855.70
1934	Roads and Bridges	Small	$8,113.41
1934	Roads and Bridges	Small	$27,712.43
1934	Utilities	Small	$3,700.65
1934	Roads and Bridges	Small	$4,942.00
1934	Roads and Bridges	Small	$7,356.00
1934	Roads and Bridges	Small	$12,267.00
1934	Roads and Bridges	Small	$7,105.00
1934	Roads and Bridges	Small	$23,482.82
1934	Roads and Bridges	Small	$4,495.00
1934	Roads and Bridges	Small	$9,547.81
1934	Roads and Bridges	Small	$3,626.00
1934	Utilities	Small	$4,484.21
1934	Utilities	Small	$8,014.00
1934	Roads and Bridges	Small	$25,756.90
1934	Roads and Bridges	Small	$2,949.86
1934	Roads and Bridges	Small	$10,003.00
1934	Roads and Bridges	Small	$24,354.61
1934	Roads and Bridges	Small	$2,325.00

1934	Roads and Bridges	Small	$47,131.00
1934	Roads and Bridges	Small	$6,212.10
1934	Roads and Bridges	Small	$1,577.00
1934	Roads and Bridges	Small	$3,817.02
1934	Roads and Bridges	Small	$8,108.00
1934	Roads and Bridges	Small	$15,716.74
1934	Roads and Bridges	Small	$24,331.19
1934	Roads and Bridges	Small	$7,147.77
1934	Roads and Bridges	Small	$6,440.00
1934	Roads and Bridges	Small	$2,375.50
1934	Roads and Bridges	Small	$2,285.00
1934	Roads and Bridges	Small	$4,298.99
1934	Roads and Bridges	Small	$1,553.40
1934	Roads and Bridges	Small	$7,366.00
1934	Roads and Bridges	Small	$6,789.60
1934	Roads and Bridges	Small	$24,230.39
1934	Roads and Bridges	Small	$11,461.89
1934	Roads and Bridges	Small	$4,463.55
1934	Roads and Bridges	Small	$6,282.00
1934	Roads and Bridges	Small	$2,654.90
1934	Roads and Bridges	Small	$6,262.80
1934	Roads and Bridges	Small	$2,282.80
1934	Roads and Bridges	Small	$1,424.85
1934	Roads and Bridges	Small	$1,453.77
1934	Roads and Bridges	Small	$46,720.29
1934	Roads and Bridges	Small	$5,023.00
1934	Roads and Bridges	Small	$30,422.00
1934	Roads and Bridges	Small	$2,149.00
1934	Roads and Bridges	Small	$21,796.04
1934	Roads and Bridges	Small	$1,463.00
1934	Roads and Bridges	Small	$4,185.55
1934	Roads and Bridges	Small	$6,729.01
1934	Roads and Bridges	Small	$5,093.00
1934	Roads and Bridges	Small	$9,898.20
4200	Roads and Bridges	Small	$20,176.87
4200	Roads and Bridges	Small	$43,717.15
4200	Roads and Bridges	Small	$18,273.54
4200	Roads and Bridges	Small	$38,020.14
4200	Roads and Bridges	Small	$50,660.00
4200	Roads and Bridges	Small	$25,434.92
4200	Roads and Bridges	Small	$20,250.80
4200	Roads and Bridges	Small	$46,977.83
4200	Utilities	Small	$32,710.47
4200	Roads and Bridges	Small	$24,218.54
4200	Roads and Bridges	Small	$43,831.43
4200	Roads and Bridges	Small	$50,258.29
4200	Roads and Bridges	Small	$3,328.51
4200	Roads and Bridges	Small	$23,871.14
4200	Roads and Bridges	Small	$21,924.77
4200	Roads and Bridges	Small	$24,926.65
4200	Roads and Bridges	Small	$34,513.85
4200	Roads and Bridges	Small	$16,861.00
4200	Roads and Bridges	Small	$63,785.87
4200	Roads and Bridges	Small	$39,368.73
4200	Roads and Bridges	Small	$11,948.30
4200	Roads and Bridges	Small	$43,498.60
4200	Roads and Bridges	Small	$39,524.75
4238	Roads and Bridges	Small	$42,785.81

4238	Roads and Bridges	Small	$62,363.73
4238	Roads and Bridges	Small	$8,144.10
4238	Roads and Bridges	Small	$41,040.21
4238	Roads and Bridges	Small	$49,099.93
4238	Roads and Bridges	Small	$42,443.74
4238	Roads and Bridges	Small	$17,441.82
4238	Roads and Bridges	Small	$4,923.18
4238	Roads and Bridges	Small	$6,497.92
4238	Roads and Bridges	Small	$37,160.69
4238	Roads and Bridges	Small	$32,506.40
4238	Roads and Bridges	Small	$20,237.38
4238	Roads and Bridges	Small	$85,930.42
4238	Roads and Bridges	Small	$75,775.20
4238	Roads and Bridges	Small	$55,712.15
4238	Roads and Bridges	Small	$119,334.67
4238	Roads and Bridges	Small	$30,268.07
4238	Roads and Bridges	Small	$56,781.95
4238	Roads and Bridges	Small	$23,215.64
4238	Roads and Bridges	Small	$38,761.58
4238	Roads and Bridges	Small	$115,461.33
4238	Roads and Bridges	Small	$11,064.48
4238	Roads and Bridges	Small	$20,971.86
4238	Roads and Bridges	Small	$25,179.36
4451	Roads and Bridges	Small	$76,378.88
4451	Roads and Bridges	Small	$11,894.31
4451	Roads and Bridges	Small	$31,943.05
4451	Roads and Bridges	Small	$8,597.26
4451	Roads and Bridges	Small	$80,550.80
4451	Roads and Bridges	Small	$8,926.21
4451	Parks, Recreational Facilities, and Other	Small	$9,482.27
4451	Roads and Bridges	Small	$17,239.90
4451	Roads and Bridges	Small	$15,211.28
4451	Roads and Bridges	Small	$23,690.14
4451	Roads and Bridges	Small	$66,550.00
4451	Roads and Bridges	Small	$27,395.80
4451	Roads and Bridges	Small	$66,534.81
4451	Roads and Bridges	Small	$30,481.87
4451	Management Costs	Small	$6,112.75
4451	Roads and Bridges	Small	$6,738.65
4451	Roads and Bridges	Small	$95,980.40
4451	Management Costs	Small	$1,715.78
4451	Water Control Facilities	Small	$26,999.29
4451	Management Costs	Small	$3,895.50
4451	Management Costs	Small	$4,697.29
4451	Roads and Bridges	Small	$64,525.51
4451	Roads and Bridges	Small	$21,895.44
4451	Roads and Bridges	Small	$97,499.58
4451	Roads and Bridges	Small	$10,073.18
4451	Roads and Bridges	Small	$20,432.14
4451	Roads and Bridges	Small	$15,962.85
4451	Roads and Bridges	Small	$42,178.88
4451	Roads and Bridges	Small	$49,932.73
4451	Roads and Bridges	Small	$5,021.48
4451	Roads and Bridges	Large	$325,745.20
4451	Debris Removal	Small	$24,770.00
4451	Roads and Bridges	Small	$65,196.14
4451	Roads and Bridges	Small	$22,221.73
4451	Roads and Bridges	Small	$58,996.19

4451	Roads and Bridges	Small	$48,506.48
4451	Roads and Bridges	Small	$10,508.74
4451	Roads and Bridges	Small	$110,599.37
4451	Roads and Bridges	Small	$28,731.04
4451	Management Costs	Small	$3,090.00
4451	Management Costs	Small	$4,061.81
4451	Roads and Bridges	Small	$11,676.98
4451	Roads and Bridges	Small	$23,607.93
4451	Roads and Bridges	Small	$11,124.37
4451	Management Costs	Small	$2,820.34
4451	Roads and Bridges	Small	$81,236.04
4451	Roads and Bridges	Small	$50,769.03
4451	Management Costs	Small	$3,787.42
4451	Roads and Bridges	Small	$37,071.59
4451	Roads and Bridges	Small	$19,124.14
4451	Roads and Bridges	Small	$97,250.23
4451	Roads and Bridges	Small	$61,929.51
4451	Roads and Bridges	Small	$14,885.20
4451	Roads and Bridges	Small	$23,074.65
4451	Management Costs	Small	$485.95
4451	Management Costs	Small	$6,306.82
4490	Emergency Protective Measures	Small	$43,792.11
4490	Emergency Protective Measures	Small	$9,184.20
4490	Emergency Protective Measures	Small	$24,816.48
4490	Emergency Protective Measures	Small	$127,757.76
4490	Emergency Protective Measures	Small	$6,006.46
Total			**$6,213,499.05**

Source: Federal Emergency Management Agency – June 2025

2.2 JURISDICTIONAL PROFILES AND MITIGATION CAPABILITIES

2.2.1 Harrison County

Harrison Couty Missouri is a county located in the northwest portion of the U.S. state of Missouri. As of the 2020 census, the population was 8,157. It's county seat is Bethany. The county was organized February 14, 1845, and named for U.S. Representative Albert G. Harrison of Missouri.. Harrison County offices include the Assessor, Collector, County Clerk, County Commission, Public Administrator, Recorder, Sherriff and Prosecutor. County departments include a road and bridge department and emergency management.

The County is governed by an elected board of Commissioners composed of a Presiding Commissioner and two Associate Commissioners. Other positions within Harrison County's government include:

- Assessor
- Associate Circuit Judge
- Circuit Clerk
- Community, Family & Youth Services
- Collector
- Coroner
- County Clerk
- County Library
- County Treasurer
- Emergency Management
- Health Department
- Health Services
- Presiding Circuit Judge
- Prosecuting Attorney
- Public Administrator
- Recorder
- Sheriff
- Treasurer
- Zoning Administrator

Mitigation Initiatives/Capabilities

The County itself does not currently have any planning and zoning requirements. The county does have an Emergency Management Director (EMD) and local emergency planning committee (LEPC). The EMD plans and directs disaster responses or crisis management activities, provides disaster preparedness training, and prepares emergency plans and procedures for natural disasters. The County has a County Emergency Management Plan, County Mitigation Plan, and Mutual Aid Agreements.

Harrison County has done little involving mitigation activities since the last hazard mitigation plan update due to limited capabilities, both financially and in terms of staff availability.

Table 2.8. Unincorporated Harrison County Mitigation Capabilities

Capabilities	Status, *Including Date of Document or Policy*
Planning Capabilities	
Comprehensive Plan	Yes
Builder's Plan	No
Capital Improvement Plan	No
City Emergency Operations Plan	NA
County Emergency Operations Plan	Yes
Local Recovery Plan	NA
County Recovery Plan	Yes, In county LEOP
City Mitigation Plan	NA
County Mitigation Plan	Yes, GHRPC - 2026
Debris Management Plan	Yes, In LEOP
Economic Development Plan	No
Transportation Plan	No, Member of TAC
Land-use Plan	No
Flood Mitigation Assistance (FMA) Plan	No
Watershed Plan	Yes
Firewise or other fire mitigation plan	No
School Mitigation Plan	No
Critical Facilities Plan	No
Policies/Ordinance	
Zoning Ordinance	No
Building Code	No
Floodplain Ordinance	No
Subdivision Ordinance	No
Tree Trimming Ordinance	No
Nuisance Ordinance	No
Stormwater Ordinance	No
Drainage Ordinance	Yes, Concentrated farm ordinance
Site Plan Review Requirements	No
Historic Preservation Ordinance	No
Landscape Ordinance	No
Seismic Construction Ordinance	No
Program	
Zoning/Land Use Restrictions	No
Codes Building Site/Design	No
Hazard Awareness Program	No
National Flood Insurance Program (NFIP)	No
NFIP Community Rating System (CRS) program	No

Capabilities	Status, *Including Date of Document or Policy*
National Weather Service (NWS) Storm Ready	No
Firewise Community Certification	No
Building Code Effectiveness Grading (BCEGs)	No
ISO Fire Rating	No
Economic Development Program	No
Land Use Program	No, FSA Program
Public Education/Awareness	No
Property Acquisition	No
Planning/Zoning Boards	No
Stream Maintenance Program	No
Tree Trimming Program	No
Engineering Studies for Streams (Local/County/Regional)	No
Mutual Aid Agreements	Yes, Fire districts, Sheriff's Department
Studies/Reports/Maps	
Hazard Analysis/Risk Assessment (Local)	NA
Hazard Analysis/Risk Assessment (County)	Yes
Flood Insurance Maps	No
FEMA Flood Insurance Study (Detailed)	No
Evacuation Route Map	Yes, In LEOP
Critical Facilities Inventory	Yes, not current
Vulnerable Population Inventory	No
Land Use Map	No
Staff/Department	
Building Code Official	No
Building Inspector	No
Mapping Specialist (GIS)	Yes, Contracted with SAMS GIS
Engineer	No
Development Planner	No
Public Works Official	No
Emergency Management Director	Yes
NFIP Floodplain Administrator	No
Emergency Response Team	No
Hazardous Materials Expert	Yes, Region H HSRT
Local Emergency Planning Committee	Yes
County Emergency Management Commission	Yes
Sanitation Department	No
Transportation Department	No
Economic Development Department	No
Housing Department	No
Historic Preservation	No
Non-Governmental Organizations (NGOs)	
American Red Cross	Yes
Salvation Army	No
Veterans Groups	Yes, American Legion, VFW
Local Environmental Organization	No
Homeowner Associations	No
Neighborhood Associations	No
Chamber of Commerce	Yes, Bethany
Community Organizations (Lions, Kiwanis, etc.)	Yes, Rotary, KofC, Masons, Eagles, Kiwanas, DAR

Capabilities	Status, *Including Date of Document or Policy*
Local Funding Availability	
Apply for Community Development Block	Yes, With GHRPC
Fund projects through Capital	Yes
Authority to levy taxes for a specific purpose	Yes
Fees for water, sewer, gas, or electric services	No
Impact fees for new development	No
Ability to incur debt through general obligation bonds	No
Ability to incur debt through special tax bonds	No
Ability to incur debt through private activities	No
Withhold spending in hazard prone areas	No

Source: Data Collection Questionnaire, 11/2025

2.2.2 City of Bethany

Bethany is a city in, and the county seat of, Harrison County, Missouri, United States, approximately midway between Kansas City and Des Moines on Interstate 35. The population was 2,915 at the 2020 census.

European settlement of Harrison County began circa 1838, although the land was not surveyed and opened for entry until 1842. The county is named after Albert C. Harrison, a 19th-century Missouri political figure. Many of the early settlers to the area homesteaded along Sugar Creek and in the Bethany area. Three commissioners deliberated for several days to determine a site for the county seat and voted to site it in the southern part of the county. The original name of the community was Dallas.

In June 1845, John S. Allen was appointed to survey the town into lots and offer the same for sale. The plat, covering 19 acres (7.7 hectares), was completed on June 27, 1845.

The first home constructed in the community was built by John S. Allen. Although built as a residence, it was primarily used to store the first stock of goods brought to the community. It was destroyed by fire in 1864.

The Chicago, Burlington and Quincy Railroad reached Bethany in 1880. Two other railroad lines were also later laid into the county. The railroad influenced the economy and environment of the community until the early 1980s, when the last train pulled out of the Bethany Depot and the tracks were removed. Transportation was an important industry to the community and the population grew to its greatest level around the turn of the century when over 24,000 people lived in Harrison County.

Industry played a vital role in Bethany's growth starting with Colonel C.L. Jennings who erected the first steam mill around 1854 in the northwest part of town; it produced both lumber and flour. Because the country was so new, little need for towns existed. For several years, only a few retail shops existed, and the development and growth of the town was slow but by 1855, Bethany was known as one of the best trading places in Northwest Missouri. An industrial park was established in the 1940s by the Harrison County Industrial Development Authority; the Bethany Memorial Airport was opened in 1944. The first tenant in the industrial park was Calhoun Manufacturing, making agriculture machinery. Lambert Manufacturing opened a facility in 1971, and Place's Discount Stores also became a resident of the industrial park until 2001 when they sold to Pamida, with the distribution center remaining active in the park until its 2002 closure. The 120,000 square foot building was purchased by the home-grown Bethany business Gumdrop Books following Pamida's closure. Later additions to the park include Superior Waste, and Tri-State Carports, which opened for business in 2001. The 1990s were a period of aggressive growth, especially within the service industry with the addition of several motels and restaurants. There has been several million dollars investment each year during the 90's and an increase of nearly 100 jobs annually.

Through the years, development continued and included the construction of a lake in 1935 to serve the water needs of the community. In 1960, a second lake was added so that Bethany could meet the increasing water needs. The Harrison County Lake was completed in 1994 and provides a third source of water for the community. In 1954, residents voted to issue bonds to build a municipal swimming pool. Numerous other utilities were upgraded from 1930 to 1970 including the construction of a water tower in 1989 to serve growth along the north side of town. In 1996, residents approved a sales tax to extend water lines from the new tower to the south side of town which resulted in a looping of the system and improved water pressure for many areas. The sales tax also funded the reconstruction of Main Street from Highway 69 to the square.

Transportation, which played an important role early in Bethany's history, came to play an even bigger role in the 1960s when Interstate 35 was constructed. This north-south four-lane highway connects Canada with Mexico. The interstate ran along the east side of town and since the completion of the interstate in the early 1970s, the community's growth has been in that direction.

The Hamilton House and Slatten House are listed on the National Register of Historic Places.

Mitigation Initiatives/Capabilities

The City of Bethany does have ordinances on various nuisances, such as dangerous or dilapidated buildings, prohibited materials, general nuisances, and lawn maintenance ordinances. They currently contract with GHRPC to provide code enforcement services. Bethany also has ordinances to address flash flooding and flooding, and has a seismic construction ordinance to mitigate damage from earthquake.

The lower level of the courthouse has been an available public shelter for several years. It has not been constructed to FEMA standards for a tornado shelter.

The city of Bethany does currently have ordinances on various nuisances, such as dangerous or dilapidated buildings, prohibited materials, general nuisances, and lawn maintenance ordinances. They currently contract with GHRPC to provide code enforcement services.

Bethany has had limited mitigation activities due to limited capabilities. The City of Bethany expanding its mitigation capabilities is unlikely, due to limited capabilities, both financially and in terms of staff availability.

Bethany's Mitigation Initiatives include:

- 5 warning sirens activated by dispatch
- Debris removal and Regular Brush Clearing
- Mutual Aid Agreements
- Representative on County Hazard Mitigation Steering Committee

Table 2.9. Bethany Mitigation Capabilities

Capabilities	Status, *Including Date of Document or Policy*
Planning Capabilities	
Comprehensive Plan	No
Builder's Plan	No
Capital Improvement Plan	No
City Emergency Operations Plan	Yes – 2015
County Emergency Operations Plan	Yes – Unknown date
Local Recovery Plan	No
County Recovery Plan	No
City Mitigation Plan	Yes
County Mitigation Plan	Yes
Debris Management Plan	No
Economic Development Plan	No
Transportation Plan	No
Land-use Plan	No
Flood Mitigation Assistance (FMA) Plan	Yes – Adopted in 2025
Watershed Plan	No

Firewise or other fire mitigation plan	No
School Mitigation Plan	No
Critical Facilities Plan	No
Policies/Ordinance	
Zoning Ordinance	Yes – 2014
Building Code	Yes – 2015
Floodplain Ordinance	Yes – 2024
Subdivision Ordinance	Yes – 2014
Tree Trimming Ordinance	Yes
Nuisance Ordinance	Yes – 2014
Stormwater Ordinance	Yes
Drainage Ordinance	Yes
Site Plan Review Requirements	Yes – 2015
Historic Preservation Ordinance	No
Landscape Ordinance	No
Seismic Construction Ordinance	Yes – 2015
Program	
Zoning/Land Use Restrictions	Yes – 2014
Codes Building Site/Design	Yes – 2015
Hazard Awareness Program	Yes – 2012
National Flood Insurance Program (NFIP)	Yes – 2025
NFIP Community Rating System (CRS) program	No
NFIP Community Rating System (CRS) program	No
National Weather Service (NWS) Storm Ready	No
Firewise Community Certification	No
Building Code Effectiveness Grading (BCEGs)	No
ISO Fire Rating	5
Economic Development Program	No
Land Use Program	Yes
Public Education/Awareness	No
Property Acquisition	Yes
Planning/Zoning Boards	Yes
Stream Maintenance Program	No
Tree Trimming Program	No
Engineering Studies for Streams (Local/County/Regional)	No
Mutual Aid Agreements	Yes – 2015
Studies/Reports/Maps	
Hazard Analysis/Risk Assessment (Local)	Yes
Hazard Analysis/Risk Assessment (County)	Yes
Flood Insurance Maps	Yes
FEMA Flood Insurance Study (Detailed)	Yes
Evacuation Route Map	No
Critical Facilities Inventory	No
Vulnerable Population Inventory	No
Land Use Map	Yes – Zoning map
Staff/Department	
Building Code Official	Full time – Fire Chief
Building Inspector	Full time – Fire Chief
Mapping Specialist (GIS)	No
Engineer	No
Development Planner	No

Public Works Official	Full time
Emergency Management Director	Full time – Fire Chief
NFIP Floodplain Administrator	Full time – Fire Chief
Emergency Response Team	Full time – Fire Chief
Hazardous Materials Expert	No
Local Emergency Planning Committee	No
County Emergency Management Commission	No
Sanitation Department	Contracted
Transportation Department	No
Economic Development Department	No
Housing Department	No
Historic Preservation	No
Non-Governmental Organizations (NGOs)	
American Red Cross	Yes
Salvation Army	No
Veterans Groups	Yes
Local Environmental Organization	No
Homeowner Associations	No
Neighborhood Associations	No
Chamber of Commerce	Yes
Community Organizations (Lions, Kiwanis, etc.)	Yes
Local Funding Availability	
Apply for Community Development Block	Yes
Fund projects through Capital	Yes
Authority to levy taxes for a specific purpose	Yes
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	No
Ability to incur debt through general obligation bonds	No
Ability to incur debt through special tax bonds	No
Ability to incur debt through private activities	No
Withhold spending in hazard prone areas	No

Source: Data Collection Questionnaire, 11/2025

2.2.3 Village of Blythedale

Blythedale is a village in northeast Harrison County, Missouri, United States. The population was 211 at the 2020 census. Blythedale was laid out in 1880 and named in honor of a railroad employee. A post office called Blythedale has been in operation since 1880.

Blythedale is located at the intersection of Missouri routes N and T approximately 2.5 miles east of Interstate 35. Eagleville is approximately three miles to the west and Ridgeway is six miles south. The East Fork of Big Creek flows past the west side of the community.

According to the United States Census Bureau, the village has a total area of 0.31 square miles (0.80 km2), all land.

Mitigation Initiatives/Capabilities

The Village of Blythedale has had limited mitigation activities since the last plan update due to limited capabilities. The Village of Blythedale expanding its mitigation capabilities is unlikely due to limited capabilities, both financially and in terms of staff availability.

Blythedale does have tree trimming ordinances and nuisance ordinances but does not currently have staff to enforce the ordinances. There is one storm siren located within the Village, it is activated in conjunction with the siren in Eagleville.

Table 2.10. Blythdale Mitigation Capabilities

Capabilities	Status, *Including Date of Document or Policy*
Planning Capabilities	
Comprehensive Plan	No
Builder's Plan	No
Capital Improvement Plan	No
City Emergency Operations Plan	No
County Emergency Operations Plan	Yes
Local Recovery Plan	No
County Recovery Plan	Yes, Included in LEOP
City Mitigation Plan	No
County Mitigation Plan	Yes, GHRPC
Debris Management Plan	No
Economic Development Plan	No
Transportation Plan	No
Land-use Plan	No
Flood Mitigation Assistance (FMA) Plan	No
Watershed Plan	No
Firewise or other fire mitigation plan	No
School Mitigation Plan	No
Critical Facilities Plan	No
Policies/Ordinance	
Zoning Ordinance	No
Building Code	No
Floodplain Ordinance	No
Subdivision Ordinance	No

Tree Trimming Ordinance	Yes
Nuisance Ordinance	Yes
Stormwater Ordinance	No
Drainage Ordinance	No
Site Plan Review Requirements	No
Historic Preservation Ordinance	No
Landscape Ordinance	Yes, Grass and shrub control
Seismic Construction Ordinance	No
Program	
Zoning/Land Use Restrictions	No
Codes Building Site/Design	No
Hazard Awareness Program	No
National Flood Insurance Program (NFIP)	No
NFIP Community Rating System (CRS) program	No
NFIP Community Rating System (CRS) program	No
National Weather Service (NWS) Storm Ready	No
Firewise Community Certification	No
Building Code Effectiveness Grading (BCEGs)	No
ISO Fire Rating	No
Economic Development Program	No
Land Use Program	No
Public Education/Awareness	No
Property Acquisition	No
Planning/Zoning Boards	No
Stream Maintenance Program	No
Tree Trimming Program	No
Engineering Studies for Streams (Local/County/Regional)	No
Mutual Aid Agreements	Yes, North Harrison Fire, Ambulance district, etc
Studies/Reports/Maps	
Hazard Analysis/Risk Assessment (Local)	NA
Hazard Analysis/Risk Assessment (County)	No
Flood Insurance Maps	Yes
FEMA Flood Insurance Study (Detailed)	No
Evacuation Route Map	No
Critical Facilities Inventory	No
Vulnerable Population Inventory	No
Land Use Map	No
Staff/Department	
Building Code Official	No
Building Inspector	No
Mapping Specialist (GIS)	No
Engineer	No
Development Planner	No
Public Works Official	No
Emergency Management Director	Yes, County EMD
NFIP Floodplain Administrator	No
Emergency Response Team	No
Hazardous Materials Expert	Yes, Mutual aid with Region H
Local Emergency Planning Committee	No
County Emergency Management Commission	No
Sanitation Department	Yes

Transportation Department	No
Economic Development Department	No
Housing Department	No
Historic Preservation	No
Non-Governmental Organizations (NGOs)	
American Red Cross	No
Salvation Army	No
Veterans Groups	No
Local Environmental Organization	No
Homeowner Associations	No
Neighborhood Associations	No
Chamber of Commerce	No
Community Organizations (Lions, Kiwanis, etc.)	No
Local Funding Availability	
Apply for Community Development Block	Yes, Through GHRPC
Fund projects through Capital	No
Authority to levy taxes for a specific purpose	Unknown
Fees for water, sewer, gas, or electric services	Yes, Water and Sewer
Impact fees for new development	No
Ability to incur debt through general obligation bonds	Yes
Ability to incur debt through special tax bonds	No
Ability to incur debt through private activities	No
Withhold spending in hazard prone areas	No

Source: Data Collection Questionnaire, 11/2025

2.2.4 City of Cainsville

Cainsville is a city in eastern Harrison County, Missouri, United States. The population was 283 at the 2020 census.

Cainsville had its start in 1854 when Peter Cain built a watermill on the site. As more workers arrived, a post office, blacksmith shop and trading post were necessarily started up, so that by 1858, a small town had developed.

Cainsville is located one half mile west of the Harrison-Mercer County line on the east side of the Thompson River floodplain. The community lies at the intersection of Missouri routes N and V approximately seven miles north of Mount Moriah. Princeton lies approximately ten miles to the east-southeast in Mercer County.

According to the United States Census Bureau, the city has a total area of 1.37 square miles (3.55 km2), all land.

Mitigation Initiatives/Capabilities

The City of Cainsville does have ordinances on various nuisances, such as dangerous or dilapidated buildings, prohibited materials, general nuisances, and lawn maintenance ordinances.

The City of Cainsville has had limited mitigation activities or initiatives since the last plan update due to limited capabilities, both in terms of limited financial resources and limited staff availability. The city does have a nuisance ordinance but does not currently have staff to enforce codes.

Table 2.11. Cainsville Mitigation Capabilities

Capabilities	Status, *Including Date of Document or Policy*
Planning Capabilities	
Comprehensive Plan	Unknown
Builder's Plan	Unknown
Capital Improvement Plan	Unknown
City Emergency Operations Plan	Yes
County Emergency Operations Plan	Yes
Local Recovery Plan	Unknown
County Recovery Plan	Unknown
City Mitigation Plan	Unknown
County Mitigation Plan	Unknown
Debris Management Plan	Unknown
Economic Development Plan	Unknown
Transportation Plan	Unknown
Land-use Plan	Unknown
Flood Mitigation Assistance (FMA) Plan	Unknown
Watershed Plan	Unknown
Firewise or other fire mitigation plan	Unknown
School Mitigation Plan	Unknown
Critical Facilities Plan	Unknown
Policies/Ordinance	
Zoning Ordinance	No
Building Code	Building Application
Floodplain Ordinance	Yes

Subdivision Ordinance	No
Tree Trimming Ordinance	No
Nuisance Ordinance	Yes
Stormwater Ordinance	Unknown
Drainage Ordinance	Unknown
Site Plan Review Requirements	Unknown
Historic Preservation Ordinance	No
Landscape Ordinance	No
Seismic Construction Ordinance	No
Program	
Zoning/Land Use Restrictions	NA
Codes Building Site/Design	Ordinance
Hazard Awareness Program	NA
National Flood Insurance Program (NFIP)	Ordinance
NFIP Community Rating System (CRS) program	Unknown
National Weather Service (NWS) Storm Ready	Yes
Firewise Community Certification	Unknown
Building Code Effectiveness Grading (BCEGs)	Unknown
ISO Fire Rating	8+
Economic Development Program	Unknown
Land Use Program	Unknown
Public Education/Awareness	Unknown
Property Acquisition	Unknown
Planning/Zoning Boards	NA
Stream Maintenance Program	Unknown
Tree Trimming Program	Unknown
Engineering Studies for Streams (Local/County/Regional)	Unknown
Mutual Aid Agreements	Yes
Studies/Reports/Maps	
Hazard Analysis/Risk Assessment (Local)	Unknown
Hazard Analysis/Risk Assessment (County)	Unknown
Flood Insurance Maps	Yes
FEMA Flood Insurance Study (Detailed)	Unknown
Evacuation Route Map	Unknown
Critical Facilities Inventory	Unknown
Vulnerable Population Inventory	Unknown
Land Use Map	Unknown
Staff/Department	
Building Code Official	NA
Building Inspector	NA
Mapping Specialist (GIS)	NA
Engineer	NA
Development Planner	NA
Public Works Official	Yes
Emergency Management Director	NA
NFIP Floodplain Administrator	Yes
Emergency Response Team	NA
Hazardous Materials Expert	NA
Local Emergency Planning Committee	City Council
County Emergency Management Commission	County Commission
Sanitation Department	Yes
Transportation Department	Yes

Economic Development Department	NA
Housing Department	NA
Historic Preservation	Yes
Non-Governmental Organizations (NGOs)	
American Red Cross	No
Salvation Army	No
Veterans Groups	No
Local Environmental Organization	No
Homeowner Associations	No
Neighborhood Associations	No
Chamber of Commerce	No
Community Organizations (Lions, Kiwanis, etc.)	American Legion
Local Funding Availability	
Apply for Community Development Block	No
Fund projects through Capital	No
Authority to levy taxes for a specific purpose	Yes
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	No
Ability to incur debt through general obligation bonds	Yes
Ability to incur debt through special tax bonds	Yes
Ability to incur debt through private activities	Yes
Withhold spending in hazard prone areas	No

Source: Data Collection Questionnaire, 11/2025

2.2.5 Village of Eagleville

Eagleville is a village in northern Harrison County, Missouri, United States. The population was 275 at the 2020 census.

Eagleville was originally called Eagle, and under the latter name was platted in 1851. A post office called Eagle was established in 1853, and the name was changed to Eagleville in 1881.

Eagleville is located on U.S. Route 69 just west of I-35 and approximately 14 miles north of Bethany the county seat of Harrison County. Blythedale is three miles to the east on Missouri Route N.

According to the United States Census Bureau, the village has a total area of 1.02 square miles (2.64 km2), of which 1.01 square miles (2.62 km2) is land and 0.01 square miles (0.03 km2) is water.

Mitigation Initiatives/Capabilities

The City of Eagleville has had limited mitigation activities since the last plan update due to limited capabilities in terms of limited financial resources and limited staff availability. The City of Eagleville does have a nuisance ordinance to address dangerous and dilapidated buildings.

Table 2.12. Eagleville Mitigation Capabilities

Capabilities	Status, *Including Date of Document or Policy*
Planning Capabilities	
Comprehensive Plan	No
Builder's Plan	No
Capital Improvement Plan	No
City Emergency Operations Plan	Yes
County Emergency Operations Plan	No
Local Recovery Plan	No
County Recovery Plan	No
City Mitigation Plan	No
County Mitigation Plan	Yes
Debris Management Plan	Yes
Economic Development Plan	No
Transportation Plan	Do not have
Land-use Plan	Do not have
Flood Mitigation Assistance (FMA) Plan	No
Watershed Plan	No
Firewise or other fire mitigation plan	No
School Mitigation Plan	No
Critical Facilities Plan	Do not have
Policies/Ordinance	
Zoning Ordinance	No
Building Code	No
Floodplain Ordinance	No
Subdivision Ordinance	No
Tree Trimming Ordinance	No
Nuisance Ordinance	Yes
Stormwater Ordinance	No
Drainage Ordinance	No

Site Plan Review Requirements	No
Historic Preservation Ordinance	No
Landscape Ordinance	No
Seismic Construction Ordinance	No
Program	
Zoning/Land Use Restrictions	No
Codes Building Site/Design	No
Hazard Awareness Program	No
National Flood Insurance Program (NFIP)	No
NFIP Community Rating System (CRS) program	No
NFIP Community Rating System (CRS) program	No
National Weather Service (NWS) Storm Ready	No
Firewise Community Certification	No
Building Code Effectiveness Grading (BCEGs)	No
ISO Fire Rating	No
Economic Development Program	No
Land Use Program	No
Public Education/Awareness	No
Property Acquisition	No
Planning/Zoning Boards	No
Stream Maintenance Program	No
Tree Trimming Program	No
Engineering Studies for Streams (Local/County/Regional)	No
Mutual Aid Agreements	Fire department does have
Studies/Reports/Maps	
Hazard Analysis/Risk Assessment (Local)	No
Hazard Analysis/Risk Assessment (County)	No
Flood Insurance Maps	No
FEMA Flood Insurance Study (Detailed)	No
Evacuation Route Map	No
Critical Facilities Inventory	No
Vulnerable Population Inventory	No
Land Use Map	No
Staff/Department	
Building Code Official	No
Building Inspector	No
Mapping Specialist (GIS)	No
Engineer	No
Development Planner	No
Public Works Official	No
Emergency Management Director	Yes-county
NFIP Floodplain Administrator	No
Emergency Response Team	Fire Department/County
Hazardous Materials Expert	Fire DepartmentCounty
Local Emergency Planning Committee	Fire Department
County Emergency Management Commission	Yes-Caleb Jacobs
Sanitation Department	City
Transportation Department	No
Economic Development Department	No
Housing Department	No
Historic Preservation	No

Non-Governmental Organizations (NGOs)	
American Red Cross	No
Salvation Army	No
Veterans Groups	No
Local Environmental Organization	No
Homeowner Associations	No
Neighborhood Associations	No
Chamber of Commerce	No
Community Organizations (Lions, Kiwanis, etc.)	No
Local Funding Availability	
Apply for Community Development Block	Yes
Fund projects through Capital	Yes
Authority to levy taxes for a specific purpose	Yes
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	No
Ability to incur debt through general obligation bonds	Yes
Ability to incur debt through special tax bonds	Yes
Ability to incur debt through private activities	No
Withhold spending in hazard prone areas	No

Source: Data Collection Questionnaire, 11/2025

2.2.6 City of Gilman City

Gilman City is a city in southeastern Harrison County and extending into northeastern Daviess County in the U.S. state of Missouri. The population was 329 in the 2020 census.

Gilman City was platted in 1897 when the railroad was extended to that point. A post office called Gilman City has been in operation since 1897. The city has the name of Theodore Gilman, a railroad banker. The city would continue to grow up until the removal of the railroad, which led to the slow decline of the town.

Gilman City is located on Missouri Route 146 approximately eleven miles southeast of Bethany and 16 northwest of Trenton, Missouri. The community of Melbourne is 4.5 miles to the east.

According to the United States Census Bureau, the city has a total area of 0.84 square miles (2.18 km2), all land.

The City of Gilman City is governed by a Mayor and a 4-member Board of Aldermen.

Mitigation Initiatives/Capabilities

The City of Gilman City has had limited mitigation activities since the last plan update due to limited capabilities in terms of limited financial resources and limited staff availability. The city currently has storm water, nuisance ordinances, and drainage ordinances.

Gilman City has 1 outdoor warning siren located in the center of the incorporated city limits. The siren is activated manually by a member of the Gilman City staff. There are no public shelters in the City of Gilman City.

Table 2.13. Gilman City Mitigation Capabilities

Capabilities	Status, *Including Date of Document or Policy*
Planning Capabilities	
Comprehensive Plan	No
Builder's Plan	No
Capital Improvement Plan	No
City Emergency Operations Plan	Yes
County Emergency Operations Plan	No
Local Recovery Plan	Yes
County Recovery Plan	No
City Mitigation Plan	Yes
County Mitigation Plan	Yes
Debris Management Plan	Yes
Economic Development Plan	No
Transportation Plan	No
Land-use Plan	No
Flood Mitigation Assistance (FMA) Plan	No
Watershed Plan	No
Firewise or other fire mitigation plan	No
School Mitigation Plan	No
Critical Facilities Plan	No
Policies/Ordinance	
Zoning Ordinance	No
Building Code	No

Floodplain Ordinance	No
Subdivision Ordinance	No
Tree Trimming Ordinance	No
Nuisance Ordinance	Yes
Stormwater Ordinance	Yes
Drainage Ordinance	Yes
Site Plan Review Requirements	No
Historic Preservation Ordinance	No
Landscape Ordinance	No
Seismic Construction Ordinance	No
Program	
Zoning/Land Use Restrictions	No
Codes Building Site/Design	No
Hazard Awareness Program	No
National Flood Insurance Program (NFIP)	No
NFIP Community Rating System (CRS) program	No
National Weather Service (NWS) Storm Ready	No
Firewise Community Certification	No
Building Code Effectiveness Grading (BCEGs)	No
ISO Fire Rating	No
Economic Development Program	No
Land Use Program	No
Public Education/Awareness	No
Property Acquisition	No
Planning/Zoning Boards	No
Stream Maintenance Program	No
Tree Trimming Program	No
Engineering Studies for Streams (Local/County/Regional)	No
Mutual Aid Agreements	Yes, Fire district. MML
Studies/Reports/Maps	
Hazard Analysis/Risk Assessment (Local)	No
Hazard Analysis/Risk Assessment (County)	No
Flood Insurance Maps	No
FEMA Flood Insurance Study (Detailed)	No
Evacuation Route Map	No
Critical Facilities Inventory	Yes
Vulnerable Population Inventory	Yes
Land Use Map	No
Staff/Department	
Building Code Official	No
Building Inspector	No
Mapping Specialist (GIS)	Contracted
Engineer	Contracted
Development Planner	No
Public Works Official	Yes
Emergency Management Director	Yes
NFIP Floodplain Administrator	No
Emergency Response Team	No
Hazardous Materials Expert	No
Local Emergency Planning Committee	No
County Emergency Management Commission	No
Sanitation Department	Yes, full time

Transportation Department	Yes, 2 full time
Economic Development Department	No
Housing Department	No
Historic Preservation	No
Non-Governmental Organizations (NGOs)	
American Red Cross	No
Salvation Army	No
Veterans Groups	No
Local Environmental Organization	No
Homeowner Associations	No
Neighborhood Associations	No
Chamber of Commerce	No
Community Organizations (Lions, Kiwanis, etc.)	Yes, Lions, Learn Science and math club
Local Funding Availability	
Apply for Community Development Block	Yes
Fund projects through Capital	Yes
Authority to levy taxes for a specific purpose	Yes, vote required
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	No
Ability to incur debt through general obligation bonds	Yes, vote required
Ability to incur debt through special tax bonds	Yes, vote required
Ability to incur debt through private activities	Yes, vote required
Withhold spending in hazard prone areas	No

Source: Data Collection Questionnaire, 11/2025

2.2.7 City of New Hampton

New Hampton is a city in southwest Harrison County, Missouri, United States. The population was 228 at the 2020 census.

New Hampton was originally called Hamptonville, and under the latter name was platted in 1869 by Hampton Cox, and named for him. A post office called New Hampton has been in operation since 1881.

The City is governed by a Mayor and City Council. The City Council consists of 4 elected officials.

There is one warning siren in New Hampton, it is operated by the Fire Department. There are no designated shelters within the City of New Hampton.

According to the United States Census Bureau, the city has a total area of 0.55 square miles (1.42 km2), all land.

Mitigation Initiatives/Capabilities

The City of New Hampton has had limited mitigation activities since the last plan update due to limited capabilities in terms of limited financial resources and limited staff availability. The city currently has nuisance ordinances to deal with dangerous/dilapidated buildings, prohibited materials, and other nuisances. The City of New Hampton expanding its mitigation capabilities is unlikely due to limited capabilities.

New Hampton has 1 outdoor warning siren located in the center of the incorporated city limits. The siren is activated by the fire department. There are no public shelters in the City of New Hampton.

Table 2.14. New Hampton Mitigation Capabilities

Capabilities	Status, *Including Date of Document or Policy*
Planning Capabilities	
Comprehensive Plan	No
Builder's Plan	No
Capital Improvement Plan	For water and sewer system only
City Emergency Operations Plan	Unknown
County Emergency Operations Plan	No
Local Recovery Plan	Unknown
County Recovery Plan	No
City Mitigation Plan	No
County Mitigation Plan	Unknown
Debris Management Plan	No
Economic Development Plan	No
Transportation Plan	No
Land-use Plan	No
Flood Mitigation Assistance (FMA) Plan	No
Watershed Plan	No
Firewise or other fire mitigation plan	No
School Mitigation Plan	No school
Critical Facilities Plan	No critical facilities
Policies/Ordinance	

Zoning Ordinance	No
Building Code	No
Floodplain Ordinance	Updated 12/2025
Subdivision Ordinance	n/a
Tree Trimming Ordinance	No
Nuisance Ordinance	Yes
Stormwater Ordinance	No
Drainage Ordinance	No
Site Plan Review Requirements	No
Historic Preservation Ordinance	No
Landscape Ordinance	No
Seismic Construction Ordinance	No
Program	
Zoning/Land Use Restrictions	No
Codes Building Site/Design	No
Hazard Awareness Program	No
National Flood Insurance Program (NFIP)	Yes
NFIP Community Rating System (CRS) program	Unknown
NFIP Community Rating System (CRS) program	No
National Weather Service (NWS) Storm Ready	No
Firewise Community Certification	No
Building Code Effectiveness Grading (BCEGs)	No
ISO Fire Rating	Handles by the Fire District – not under city jurisdiction
Economic Development Program	No
Land Use Program	No
Public Education/Awareness	No
Property Acquisition	No
Planning/Zoning Boards	No
Stream Maintenance Program	No
Tree Trimming Program	No
Engineering Studies for Streams (Local/County/Regional)	No
Mutual Aid Agreements	No
Studies/Reports/Maps	
Hazard Analysis/Risk Assessment (Local)	Unknown
Hazard Analysis/Risk Assessment (County)	Unknown
Flood Insurance Maps	Yes
FEMA Flood Insurance Study (Detailed)	Unknown
Evacuation Route Map	No
Critical Facilities Inventory	No critical facilities
Vulnerable Population Inventory	no-handles by county health dept.
Land Use Map	No
Staff/Department	
Building Code Official	No
Building Inspector	No
Mapping Specialist (GIS)	No
Engineer	No-hired as needed
Development Planner	No
Public Works Official	No
Emergency Management Director	No
NFIP Floodplain Administrator	City Clerk
Emergency Response Team	No

Hazardous Materials Expert	No
Local Emergency Planning Committee	No
County Emergency Management Commission	Unknown
Sanitation Department	No
Transportation Department	No
Economic Development Department	No
Housing Department	No
Historic Preservation	No
Non-Governmental Organizations (NGOs)	
American Red Cross	No
Salvation Army	No
Veterans Groups	No
Local Environmental Organization	No
Homeowner Associations	No
Neighborhood Associations	No
Chamber of Commerce	No
Community Organizations (Lions, Kiwanis, etc.)	No
Local Funding Availability	
Apply for Community Development Block	Never done it
Fund projects through Capital	Unknown
Authority to levy taxes for a specific purpose	Yes
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	Unknown
Ability to incur debt through general obligation bonds	Yes-water and sewer only
Ability to incur debt through special tax bonds	Unknown
Ability to incur debt through private activities	Unknown
Withhold spending in hazard prone areas	Unknown

Source: Data Collection Questionnaire, 11/2025

2.2.8 City of Ridgeway

According to The United States census bureau, Ridgeway is a city in Harrison County, Missouri, United States. The population was 372 in the 2020 census.

Ridgeway was originally called "Yankee Ridge".[6] A post office called Yankee Ridge was established in 1872, and the name was changed to Ridgeway in 1880. The present name honors an employee of the Chicago, Burlington and Quincy Railroad.

Ridgeway is located at the intersection of Missouri routes A and T 2.5 miles east of I-35. Bethany is approximately 7 miles to the south. The East Fork of Big Creek flows about two miles west of the community.

According to the United States Census Bureau, the city has a total area of 1.23 square miles (3.19 km2), of which 1.22 sq mi (3.16 km2) is land and 0.01 sq mi (0.03 km2) is water.

The city of Ridgeway is governed by a mayor and 4 city council members. They are elected for 2 year terms.

The city has 1 outdoor warning siren which the fire department activates.

There is no public shelter within the city.

Mitigation Initiatives/Capabilities

The City of Ridgeway has had limited mitigation activities since the last plan update due to limited capabilities in terms of limited financial resources and limited staff availability. The city does have nuisance ordinances and dangerous building codes. This provides the city with the capability to address dangerous and dilapidated structures, however due to limited staff they currently do not enforce these ordinances.

It is unlikely the City of Ridgeway will expand its mitigation capabilities due to limited capabilities.

Table 2.15. City of Ridgeway Mitigation Capabilities

Capabilities	Status, *Including Date of Document or Policy*
Planning Capabilities	
Comprehensive Plan	No
Builder's Plan	No
Capital Improvement Plan	No
City Emergency Operations Plan	NA
County Emergency Operations Plan	NA
Local Recovery Plan	No
County Recovery Plan	NA
City Mitigation Plan	No
County Mitigation Plan	NA
Debris Management Plan	No
Economic Development Plan	No
Transportation Plan	No
Land-use Plan	No
Flood Mitigation Assistance (FMA) Plan	No
Watershed Plan	No

Firewise or other fire mitigation plan	No
School Mitigation Plan	NA
Critical Facilities Plan	No
Policies/Ordinance	
Zoning Ordinance	No
Building Code	Dangerous building codes
Floodplain Ordinance	Yes
Subdivision Ordinance	No
Tree Trimming Ordinance	No
Nuisance Ordinance	Yes
Stormwater Ordinance	No
Drainage Ordinance	No
Site Plan Review Requirements	No
Historic Preservation Ordinance	No
Landscape Ordinance	No
Seismic Construction Ordinance	No
Program	
Zoning/Land Use Restrictions	No
Codes Building Site/Design	No
Hazard Awareness Program	No
National Flood Insurance Program (NFIP)	No
NFIP Community Rating System (CRS) program	No
NFIP Community Rating System (CRS) program	No
National Weather Service (NWS) Storm Ready	No
Firewise Community Certification	No
Building Code Effectiveness Grading (BCEGs)	NA
ISO Fire Rating	NA
Economic Development Program	No
Land Use Program	No
Public Education/Awareness	NA
Property Acquisition	No
Planning/Zoning Boards	No
Stream Maintenance Program	NA
Tree Trimming Program	No
Engineering Studies for Streams (Local/County/Regional)	No
Mutual Aid Agreements	NA
Studies/Reports/Maps	
Hazard Analysis/Risk Assessment (Local)	No
Hazard Analysis/Risk Assessment (County)	NA
Flood Insurance Maps	Yes
FEMA Flood Insurance Study (Detailed)	Yes
Evacuation Route Map	No
Critical Facilities Inventory	No
Vulnerable Population Inventory	No
Land Use Map	No
Staff/Department	
Building Code Official	Yes, Elected
Building Inspector	Yes, Elected
Mapping Specialist (GIS)	No
Engineer	Yes
Development Planner	No

Public Works Official	No
Emergency Management Director	No
NFIP Floodplain Administrator	Yes
Emergency Response Team	NA
Hazardous Materials Expert	No
Local Emergency Planning Committee	NA
County Emergency Management Commission	NA
Sanitation Department	Yes, Full time
Transportation Department	NA
Economic Development Department	No
Housing Department	No
Historic Preservation	No
Non-Governmental Organizations (NGOs)	
American Red Cross	No
Salvation Army	No
Veterans Groups	Yes
Local Environmental Organization	No
Homeowner Associations	No
Neighborhood Associations	No
Chamber of Commerce	No
Community Organizations (Lions, Kiwanis, etc.)	Yes, Betterment Assn.
Local Funding Availability	
Apply for Community Development Block	Can apply
Fund projects through Capital	Yes
Authority to levy taxes for a specific purpose	Yes, but do not
Fees for water, sewer, gas, or electric services	Yes, Water and Sewer
Impact fees for new development	No
Ability to incur debt through general obligation bonds	No, cannot afford
Ability to incur debt through special tax bonds	No, cannot afford
Ability to incur debt through private activities	No, cannot afford
Withhold spending in hazard prone areas	No

Source: Data Collection Questionnaire, 11/2025

2.2.9 Summary of Jurisdictional Capabilities

Table 2.16. Mitigation Capabilities Summary Table

CAPABILITIES	Uninc. Harrison County	City of Bethany	Village of Blythdale	City of Cainsville	Village of Eagleville	City of Gilman City	City of New Hampton	City of Ridgeway
Planning Capabilities								
Comprehensive Plan	Yes	No	No	Unknown	No	No	No	No
Builder's Plan	No	No	No	Unknown	No	No	No	No
Capital Improvement Plan	No	No	No	Unknown	No	No	No	No
City Emergency Operations Plan	NA	Yes	No	Yes	Yes	Yes	No	NA
County Emergency Operations Plan	Yes	Yes	Yes	Yes	No	No	No	NA
Local Recovery Plan	NA	No	No	Unknown	No	Yes	No	No
County Recovery Plan	Yes	No	Yes	Unknown	No	No	No	NA
City Mitigation Plan	NA	Yes	No	Unknown	No	Yes	No	No
County Mitigation Plan	Yes	Yes	Yes	Unknown	Yes	Yes	No	NA
Debris Management Plan	Yes	No	No	Unknown	Yes	Yes	No	No
Economic Development Plan	No	No	No	Unknown	No	No	No	No
Transportation Plan	No	No	No	Unknown	No	No	No	No
Land-use Plan	No	No	No	Unknown	No	No	No	No
Flood Mitigation Assistance (FMA) Plan	No	Yes	No	Unknown	No	No	No	No
Watershed Plan	Ye	No	No	Unknown	No	No	No	No
Firewise or other fire mitigation plan	No	No	No	Unknown	No	No	No	No
School Mitigation Plan	No	No	No	Unknown	No	No	No	NA
Critical Facilities Plan	No	No	No	Unknown	No	No	No	No
Policies/Ordinance								
Zoning Ordinance	No	Yes	No	No	No	No	Yes	No
Building Code	No	Yes	No	Yes	No	No	No	Yes
Floodplain Ordinance	No	Yes	No	Yes	No	No	No	Yes
Subdivision Ordinance	No	Yes	No	No	No	No	No	No
Tree Trimming Ordinance	No	Yes	Yes	No	No	No	No	No
Nuisance Ordinance	No	Yes	Yes	Yes	Yes	No	No	Yes
Stormwater Ordinance	No	Yes	No	Unknown	No	Yes	No	No
Drainage Ordinance	Yes	Yes	No	Unknown	No	Yes	Yes	No

CAPABILITIES	Uninc. Harrison County	City of Bethany	Village of Blythdale	City of Cainsville	Village of Eagleville	City of Gilman City	City of New Hampton	City of Ridgeway
Site Plan Review Requirements	No	Yes	No	Unknown	No	No	No	No
Historic Preservation Ordinance	No	No	No	No	No	No	No	No
Landscape Ordinance	No	No	Yes,	No	No	No	No	No
Seismic Construction Ordinance	No	Yes	No	No	No	No	No	No
Program								
Zoning/Land Use Restrictions	**No**	Yes	No	NA	No	No	No	No
Codes Building Site/Design	No	Yes	No	Ordinance	No	No	No	No
Hazard Awareness Program	No	Yes	No	NA	No	No	No	No
National Flood Insurance Program (NFIP)	No	Yes	No	Ordinance	No	No	Yes	No
NFIP Community Rating System (CRS) program	No	No	No	Unknown	No	No	No	No
National Weather Service (NWS) Storm Ready	No	No	No	Yes	No	No	No	No
Firewise Community Certification	No	No	No	Unknown	No	No	No	No
Building Code Effectiveness Grading (BCEGs)	No	No	No	Unknown	No	No	No	No
ISO Fire Rating	No	No	No	8+	No	No	No	NA
Economic Development Program	No	5	No	Unknown	No	No	No	NA
Land Use Program	No	No	No	Unknown	No	No	No	No
Public Education/Awareness	No	Yes	No	Unknown	No	No	No	No
Property Acquisition	No	No	No	Unknown	No	No	No	NA
Planning/Zoning Boards	No	Yes	No	NA	No	No	No	No
Stream Maintenance Program	No	Yes	No	Unknown	No	No	No	No
Tree Trimming Program	No	No	No	Unknown	No	No	No	NA
Engineering Studies for Streams (Local/County/Regional)	No	No	No	Unknown	No	No	No	No
Mutual Aid Agreements	Yes	No	Yes	Yes	No	Yes	No	No
Studies/Reports/Maps								
Hazard Analysis/Risk Assessment (Local)	NA	Yes	NA	Unknown	No	No	**No**	No

CAPABILITIES	Uninc. Harrison County	City of Bethany	Village of Blythdale	City of Cainsville	Village of Eagleville	City of Gilman City	City of New Hampton	City of Ridgeway
Hazard Analysis/Risk Assessment (County)	Yes	Yes	No	Unknown	No	No	No	NA
Flood Insurance Maps	No	Yes	Yes	Yes	No	No	Yes	Yes
FEMA Flood Insurance Study (Detailed)	No	Yes	No	Unknown	No	No	No	Yes
Evacuation Route Map	Yes	No	No	Unknown	No	No	No	No
Critical Facilities Inventory	Yes,	No	No	Unknown	No	Yes	No	No
Vulnerable Population Inventory	No	No	No	Unknown	No	Yes	No	No
Land Use Map	No	Yes	No	Unknown	No	No	No	No
Staff/Department								
Building Code Official	No	Full time	No	NA	No	No	No	Yes
Building Inspector	No	Full time	No	NA	No	No	No	Yes
Mapping Specialist (GIS)	Contracted	No	No	NA	No	Contracted	Contracted	No
Engineer	No	No	No	NA	No	Contracted	No	Yes
Development Planner	No	No	No	NA	No	No	No	No
Public Works Official	No	Full time	No	Yes	No	Yes	No	No
Emergency Management Director	Yes	Full time	Yes	NA	County	Yes	No	No
NFIP Floodplain Administrator	No	Full time	No	Yes	No	No	Yes	Yes
Emergency Response Team	No	Full time	No	NA	Fire dept.	No	No	NA
Hazardous Materials Expert	Yes	No	Yes	NA	Nofire dept.	No	No	No
Local Emergency Planning Committee	Yes	No	No	City Council	Fire dept.	No	No	NA
County Emergency Management Commission	Yes	No	No	County Commission	Caleb Jacobs	No	No	NA
Sanitation Department	No	Contracted	Yes	Yes	Yes	Yes	No	Yes
Transportation Department	No	No	No	Yes	No	Yes	No	NA
Economic Development Department	No	No	No	NA	No	No	No	No
Housing Department	No	No	No	NA	No	No	No	No
Historic Preservation	No	No	No	Yes	No	No	No	No
Non-Governmental Organizations (NGOs)								
American Red Cross	Yes	Yes	No	No	No	No	No	No
Salvation Army	No	No	No	No	No	No	No	No
Veterans Groups	Yes	Yes	No	No	No	No	No	Yes

CAPABILITIES	Uninc. Harrison County	City of Bethany	Village of Blythdale	City of Cainsville	Village of Eagleville	City of Gilman City	City of New Hampton	City of Ridgeway
Local Environmental Organization	No	No	No	No	No	No	No	No
Homeowner Associations	No	No	No	No	No	No	No	No
Neighborhood Associations	No	No	No	No	No	No	No	No
Chamber of Commerce	Yes	Yes	No	No	No	No	No	No
Community Organizations (Lions, Kiwanis, etc.)	Yes	Yes	No	American Legion	No	Yes	No	Yes
Financial Resources								
Apply for Community Development Block Grants	Yes	Yes	Yes	No	**Yes**	Yes	**Yes**	**Yes**
Fund projects through Capital Improvements funding	Yes	Yes	No	No	Yes	Yes	No	Yes
Authority to levy taxes for a specific purpose	Yes	Yes	Unknown	Yes	Yes	Vote required	Vote req.	Yes
Fees for water, sewer, gas, or electric services	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Impact fees for new development	No	No	No	No	No	No	Unknown	No
Ability to incur debt through general obligation bonds	No	No	Yes	Yes	Yes	Vote required	Yes-water & sewer only	No
Ability to incur debt through special tax bonds	No	No	No	Yes	Yes	Vote required	Unknown	No
Ability to incur debt through private activities	No	No	No	Yes	No	Vote required	unknown	No
Withhold spending in hazard prone areas	No	No	No	No	No	No	Unknown	Yes

Source: Data Collection Questionnaire, Novemeber 2025

2.2.10 Special District

Harrison County Community Hospital participated in the hazard mitigation plan update for Harrison County. The following information was collected from the Special District Questionnaire and summarizes the mitigation capabilities of the special district. The HCCH special district is a critical facility in Harrison County, as it is the only hospital in the planning area, and is currently expanding its healthcare operations into Daviess County.

The Harrison County Community Hospital has a critical facilities plan, which per HCCH Policy, is updated annually. There is also a Hazard Awareness Program which is reviewed and updated annually at all HCCH locations.

There is an internal Emergency Management Director. This position oversees the emergency management and planning of the HCCH special district. The hospital has an Emergency Response Team which is FEMA trained. HCCH has 7 employees that participate in Harrison County LEPC.

HCCH is governed by a Board of Directors which consists of 6 members and a secretary.

All employees of HCCH receive safety training upon hire and every year of employment. This training is conducted annually. The training encompasses fire safety training, weather safety training, material safety data sheets, armed intruder training and bomb threat training.

There are currently 2 projects that are designed to reduce disaster losses and protect the facility in the event of natural hazards, manmade hazards, and other potentially hazardous events. These projects are a FEMA Trained Hospital Emergency Response Team and a team to deal with hazmat and chemical decontamination in the event that such becomes a necessity.

There are no known warning sirens or tornado shelters within HCCH grounds.

The hospital is currently building a new facility, and the scheduled move-in date is set for June of 2026.

HCCH currently employs approximately 260 people. There has been no participation with the hazard mitigation plan development in the past, so there are no mitigation planning members on staff that participated in the previous plan for Harrison County.

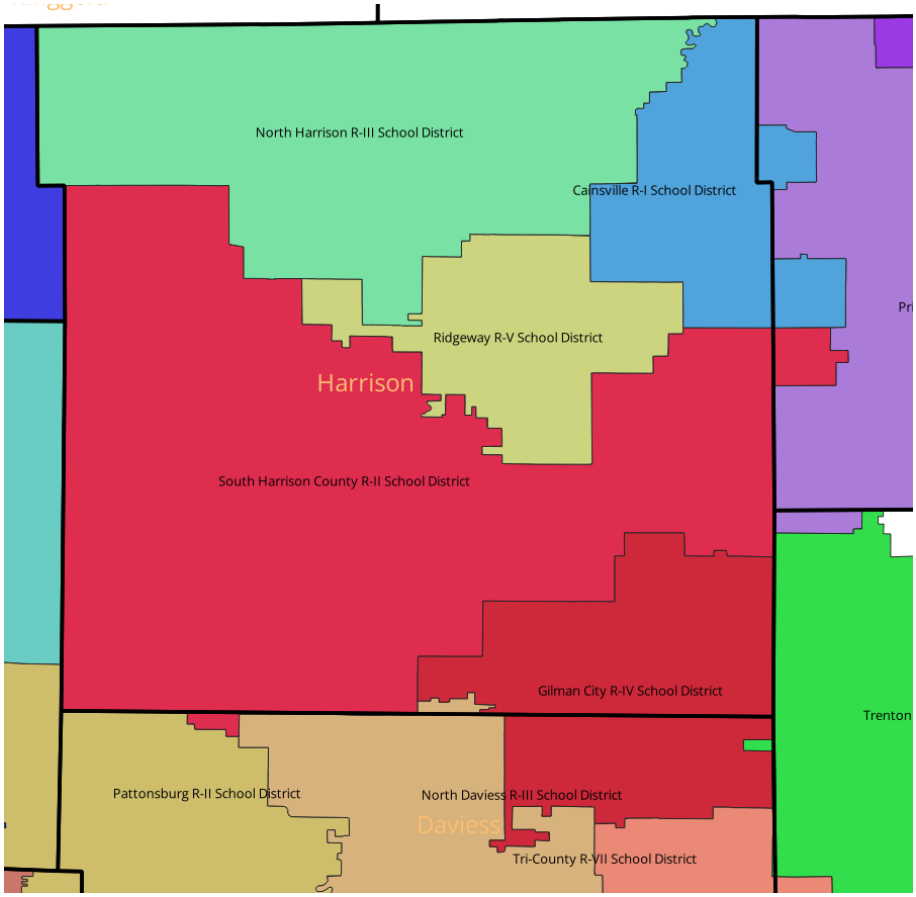
HCCH District encompasses the following critical facilities in the planning area:

- Harrison County Community Hospital
- Bethany Medical Clinic
- North Harrison Medical Clinic
- Pattonsburg Medical Clinic (located outside of planning area in Daviess County)

2.2.11 School District Profiles and Mitigation Capabilities

There are five school districts operating within Harrison County. The figures and tables Below show additional information about these districts. The district of Cainsville R-I and Gilman City R-IV were invited to participate in the planning process but did not meet the requirements of a plan participant. They will be invited, again, to participate in the planning process during the next update of the plan.

Table 2.17. Harrison County School District Map



North Harrison R-III

North Harrison R-III School District is located at 12023 Fir St. in Eagleville, Missouri. The following table provides enrollment information.

Table 2.18. North Harrison R-III Buildings and Enrollment Data, 10/20/2025

District Name	Building Name	Building Enrollment
North Harrison R-III	Elementary	141
North Harrison R-III	High School	59

Source: https://dese.mo.gov/school-data, 9/30/2025

The school conducts severe weather and evacuation drills. Each school building is equipped with a PA system used for emergency announcements, which can offer alerts by single building or throughout all buildings. The school does not have NOAA Weather Radios.

The school has a storm shelter that was built by the Early Childhood Center in increase safety during natural disasters. There is also a shelter in the basement locker room at the Junior/Senior Highschool Building, it was not built to FEMA standards.

The school relies on the Harrison County Sheriff's Department in the event of an emergency, there are no officers on staff.

North Harrison R-III is governed by a Board of Education consisting of the board president and six elected board members.

North Harrison R-III has done little to expand mitigation capabilities since the last plan update due to limited capabilities and has little planned in the way of expanding mitigation capabilities due to limited budget and resources.

Table 2.19. North Harrison R-III Mitigation Capabilities

Capability	North Harrison R-III
Planning Elements	
Master Plan	Yes, 10/2023
Capital Improvement Plan	Yes, 4/2025
Emergency Plan	Yes, 10/2023
Weapons Policy	Yes, 6/2025
Personnel Resources	
Full-Time Building Official	No
Emergency Manager	No
Grant Writer	No
Public Information Officer	No
Financial Resources	
Capital improvements Project fund	No
Local Funds	Yes
General Obligation Bond	Yes
Special Tax Bonds	No
Private Activities/Donations	Yes
State and Federal Funds	Yes

Source: Data Collection Questionnaire, November 2025

Ridgeway R-V

Ridgeway R-V School District is located at 305 Main St. in Ridgeway, Missouri. The following table provides enrollment information.

Table 2.20. Ridgeway R-V Buildings and Enrollment Data, 10/20/2025

District Name	Building Name	Building Enrollment
Ridgeway R-V	Elementary	39
Ridgeway R-V	High School	23

Source: https://dese.mo.gov/school-data, 9/30/2025

The school conducts severe weather and evacuation drills. The Ridgeway R-V district uses Bell Commander and the District phone system to signal an alert. The school does not have NOAA Weather Radios.

The school staff is trained in responding to an active shooter, fires, tornadoes, and has CPR training.

The school does not have a storm shelter built to FEMA standards.

The school relies on the Harrison County Sheriff's Department in the event of an emergency; there are no officers on staff.

Ridgeway R-V is governed by a Board of Education consisting of the board president and six elected board members.

Ridgeway R-V has done little to expand mitigation capabilities since the last plan update due to limited capabilities and has little planned in the way of expanding mitigation capabilities due to limited budget and resources.

Table 2.21. Ridgeway R-V Mitigation Capabilities

Capability	Ridgeway R-V
Planning Elements	
Master Plan	Yes, 8/2024
Capital Improvement Plan	No
Emergency Plan	Yes, 8/2024
Weapons Policy	Yes, 8/2024
Personnel Resources	
Full-Time Building Official	Yes, Superintendent
Emergency Manager	Yes
Grant Writer	Yes
Public Information Officer	Yes
Financial Resources	
Capital improvements Project fund	Yes, limited funding
Local Funds	Yes
General Obligation Bond	Yes
Special Tax Bonds	No, option for bonds
Private Activities/Donations	Yes
State and Federal Funds	Yes

Source: Data Collection Questionnaire, November 2025

South Harrison Co. R-II

South Harrison R-II is located at 3400 Bulldog Avenue in Bethany, Missouri. The following table provides enrollment information.

Table 2.22. South Harrison R-II Buildings and Enrollment Data, 10/20/2025

District Name	Building Name	Building Enrollment
South Harrison R-II	Elementary	498
South Harrison R-II	High School	243

Source: https://dese.mo.gov/school-data, 9/30/2025

The school conducts severe weather and evacuation drills. The school is equipped with an intercom in each building in the event of an emergency. The school does have NOAA Weather Radios.

The district recently had a facilities review. The review identified a potential hazard of tree and/or

stumps located too close to the building and branches overhanging onto the buildings. They have contracted to remove this potential hazard.

The district does not currently have any designated shelters.

The district is governed by a Board of Education consisting of the board president and six elected board members.

The school relies on the Harrison County Sheriff's Department and the Bethany Police Department in the event of an emergency; there are no officers on staff.

South Harrison R-II has done little to expand mitigation capabilities since the last plan update due to limited capabilities and has little planned in the way of expanding mitigation capabilities due to limited budget and resources.

Table 2.23. South Harrison R-II Mitigation Capabilities

Capability	Ridgeway R-V
Planning Elements	
Master Plan	Yes, 8/2025
Capital Improvement Plan	Yes, 10/2025
Emergency Plan	Yes, 8/2025
Weapons Policy	Yes, 2/2001
Personnel Resources	
Full-Time Building Official	Yes, Superintendent
Emergency Manager	Yes, Superintendent
Grant Writer	No
Public Information Officer	No
Financial Resources	
Capital improvements Project fund	Yes
Local Funds	Yes
General Obligation Bond	No
Special Tax Bonds	No
Private Activities/Donations	No
State and Federal Funds	Yes

Source: Data Collection Questionnaire, November 2025

Summary of Mitigation Capabilities- Harrison County Schools

Table 2.24. Summary of School District mitigation capabilities

Capability	North Harrison R-III	Ridgeway R-V	South Harrison R-II
Planning Elements			
Master Plan	Yes, 10/2023	Yes, 8/2024	Yes, 8/2025
Capital Improvement Plan	Yes, 4/2025	No	Yes, 10/2025
Emergency Plan	Yes, 10/2023	Yes, 8/2024	Yes, 8/2025
Weapons Policy	Yes, 6/2025	Yes, 8/2024	Yes, 2/2001
Personnel Resources			
Full-Time Building Official	No	Yes, Superintendent	Yes, Superintendent
Emergency Manager	No	Yes	Yes, Superintendent
Grant Writer	No	Yes	No
Public Information Officer	No	Yes	No
Financial Resources			
Capital improvements Project fund	No	Yes, limited funding	Yes
Local Funds	Yes	Yes	Yes
General Obligation Bond	Yes	Yes	No
Special Tax Bonds	No	No, option for bonds	No
Private Activities/Donations	Yes	Yes	No
State and Federal Funds	Yes	Yes	Yes

Source: Data Collection Questionnaire, November 2025

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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 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.

Natural hazards can be complex, occurring with a wide range of intensities. Some events are instantaneous and offer no window of warning, such as earthquakes. Some offer a short warning in which to alert the public to take actions, such as tornadoes or severe thunderstorms. Others occur less frequently and are typically more expensive, with some warning time to allow the public time to prepare for, such as flooding. The Harrison County Hazard Mitigation Planning Committee has determined that natural hazards will be the sole focus of the plan. To that purpose, man-made phenomena such as war, chemical contamination, and other man-made hazards will be excluded from the plan.

Happenings such as those listed below, which occur in a populated area, are referred to as hazardous events. It is not until significant property damage and loss of life result from a natural hazard that the phenomena are classified as a natural disaster.

3.1.1 Review of Existing Mitigation Plans

The MPC previously developed a multi-jurisdictional Hazard Mitigation Plan Update approved on May 3, 2021. Harrison County,

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 Harrison County. Sinkholes were excluded from the plan as there are no known sinkholes in Harrison County.

3.1.2 Review Disaster Declaration History

Missouri State of Emergencies are Executive Orders (E.O.) signed by the Governor. For disasters, a State of Emergency could lead to a Federal Disaster Declaration. Since the last plan update, no non-federally declared events resulted in a significant event impacting the planning area

Disaster Declarations may be granted when the severity and magnitude of an event surpasses the ability of the 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.

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.

Table 3.1. FEMA Disaster Declarations that included Harrison County, Missouri, 1965-

Present

Disaster Number	Description	Declaration Date Incident Period	Individual Assistance (IA) Public Assistance (PA)
372	Severe Storms (Heavy Rains, Tornadoes, & Flooding)	4/19/1973	IA, PA
407	Severe Storms, Flooding	11/1/1973	IA, PA
995	Flooding, Severe Storms	6/10/1993 – 10/25/1993	IA, PA
1524	Severe Storms, Tornadoes, & Flooding	5/18/2004 – 5/31/2004	IA, PA
1708	Severe Storms and Flooding	5/5/2007 – 5/18/2007	PA
1773	Severe Storms and Flooding	6/1/2008 – 8/13/2008	IA, PA
1934	Severe Storms, Flooding, and Tornadoes	6/12/2010 – 7/31/2010	PA
3017	Drought	9/24/1976	PA
3232	Hurricane Katrina Evacuation	8/29/2005 – 10/1/2005	PA
3281	Severe Winter Storm	12/8/2007 – 12/15/2007	PA
3303	Severe Winter Storm	1/26/2009 – 1/28/2009	PA
3317	Severe Winter Storm	1/31/2011 – 2/5/2011	PA
3482	Covid-19 Pandemic	1/20/2020 – 5/11/2023	IA, PA
4200	Severe Storms, Straight-line Winds, Tornadoes, and Flooding	9/9/2014 – 9/10/2014	PA
4238	Severe Storms, Straight-line Winds, Tornadoes, and Flooding	5/15/2015 – 7/27/2015	PA
4451	Flooding, Severe Storms, Tornadoes	4/29/2019 – 7/6/2019	PA
4490	Covid-19 Pandemic	1/20/2020 – 5/11/2023	IA, PA

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

3.1.3 Research Additional Sources

The list below is additional sources of data utilized for the hazards in the planning area:

- Missouri Hazard Mitigation Plans (2018 and 2023)
- Previously approved planning area Hazard Mitigation Plan (2021)
- 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 Division of Fire Marshal Safety
- 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)
- Various articles and publications available on the internet (you should state that you will give citations to the sources in the body of the plan)

Note that 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 from January 1950 to March 2014, 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.

Note that injuries and deaths caused by a storm event are reported on an area-wide 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

If there are hazards which do not impact a specific jurisdiction, this MUST be explicitly stated and rationalized here. If not, actions will need to be created to mitigate against all hazards for all jurisdictions.
The hazards of Subsidence/Sinkholes and Levee Failure have been excluded from the Harrison County plan as there are no known sinkholes or levees in the planning area.

Table 3.2. Hazards Identified for Each Jurisdiction

Jurisdiction	Dam Failure	Drought	Earthquake	Extreme Temperatures	Flooding (River and Flash)	Severe Winter Weather	Thunderstorm/Lightning/ Hail/High Wind	Tornado	Wildfire
Harrison County	X	X	X	X	X	X	X	X	X
Bethany	X	X	X	X	X	X	X	X	X
Village of Blythedale	X	X	X	X	X	X	X	X	X
City of Cainsville	X	X	X	X	X	X	X	X	X
City of Eagleville	X	X	X	X	X	X	X	X	X
Gilman City	X	X	X	X	X	X	X	X	X
New Hampton	X	X	X	X	X	X	X	X	X
Ridgeway	X	X	X	X	X	X	X	X	X
Cainsville R-I	X	X	X	X	X	X	X	X	X
North Harrison R-III	X	X	X	X	X	X	X	X	X
Ridgeway R-V	X	X	X	X	X	X	X	X	X
South Harrison Co. R-II	X	X	X	X	X	X	X	X	X

3.1.5 Multi-Jurisdictional Risk Assessment

For this multi-jurisdictional plan, the risks are assessed for each jurisdiction where they deviate from the risks facing the entire planning area. The planning area is fairly uniform, in terms of climate and topography, as well as building construction characteristics. Accordingly, the geographic areas of occurrence for weather-related hazards do not vary greatly across the planning area for most hazards. Bethany is slightly more urbanized within the planning area and has more assets that are vulnerable to the weather-related hazards and varied development trends impact the future vulnerability. Similarly, more rural areas have more assets (crops/livestock) that are vulnerable to animal/plant/crop disease. These differences are discussed in greater detail in the vulnerability sections of each hazard.

The hazards that vary across the planning area in terms of risk include dam failure, flash flood, and grass or wildland fire. The difference in hazards is explained in each hazard profile under a separate heading.

3.2 ASSETS AT RISK

This section assesses the population, structures, critical facilities and infrastructure, and other important assets in the planning area that may be at risk to natural hazards. **Table 3.3** shows the total population, building count, estimated value of buildings, estimated value of contents and estimated total exposure to parcels by jurisdiction.

3.2.1 Total Exposure of Population and Structures

For the 2023 State Plan, SEMA utilized a structure inventory dataset developed by the University of Missouri GIS Department (MSDIS) to determine the number of structures exposed to risks. MSDIS created a point and/or footprint dataset for every roof line in every county in the state of Missouri. This dataset is attributed with the type of structure such as Residential, Commercial, etc. This dataset, along with additional State Mitigation Planning Resources, is available on Google Drive in both GIS and Excel format and organized by County:

Unincorporated County and Incorporated Cities

In the following three tables, population data is based on 2023 Census Bureau data. Building counts and building exposure values are based on parcel data developed by the State of Missouri Geographic Information Systems (GIS) database. This data, organized by County, is available on Google Drive through the link provided on the previous page. 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 incorporated city. For multi-county communities, the population and building data may include data on assets located outside the planning area. **Table 3.4** that follows 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 city in the planning area broken out by building usage types (residential, commercial, industrial, and agricultural).

Table 3.3. Maximum Population and Building Exposure by Jurisdiction

Jurisdiction	2023 Annual Population Estimate	Building Count	Building Exposure ($)	Contents Exposure ($)	Total Exposure ($)
City of Bethany	3,164	1,839	$217,990.00	$125,061.00	$343,051.00
Village of Blythedale	357	143	$13,191.00	$6,809.00	$19,999.00
City of Cainsville	207	346	$26,845.00	$16,067.00	$42,912.00
Village of Eagleville	350	235	$29,834.00	$19,152.00	$48,985.00
Gilman City	355	363	$31,008.00	$16,668.00	$47,676.00
Village of Mt. Moriah	129	154	$11,981.00	$7,362.00	$19,343.00
City of New Hampton	302	262	$23,713.00	$13,469.00	$37,182.00
City of Ridgeway	525	485	$48,547.00	$28,343.00	$76,890.00
Unincorporated Harrison	2,809	10,413	$283,418.00	$138,845.00	$422,263.00
Totals	**8,198**	**14,240**	**$686,527.00**	**$371,776.00**	**$1,058,301.00**

Source: U.S. Bureau of the Census, Annual population estimates/ 5-Year American Community Survey 2023; Building Count and Building Exposure, Missouri GIS Database from SEMA Mitigation Management; Contents Exposure derived by applying multiplier to Building Exposure based on Hazus 6.0 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	Agriculture	Commercial	Education	Government	Industrial	Residential	Total
City of Bethany	$1,008.00	$86,097.00	$15,729.00	$6,873.00	$2,978.00	$230,366.00	$343,051.00
Village of Blythedale	$104.00	$1,063.00	$0.00	$0.00	$0.00	$18,833.00	$19,999.00
City of Cainsville	$409.00	$12,224.00	$414.00	$0.00	$0.00	$29,866.00	$42,912.00
Village of Eagleville	$119.00	$19,133.00	$1,242.00	$529.00	$0.00	$27,964.00	$48,985.00
Gilman City	$327.00	$4,252.00	$0.00	$1,057.00	$0.00	$42,040.00	$47,676.00
Village of Mt. Moriah	$181.00	$5,846.00	$0.00	$0.00	$0.00	$13,316.00	$19,343.00
City of New Hampton	$225.00	$5,315.00	$0.00	$1,586.00	$0.00	$30,056.00	$37,182.00
City of Ridgeway	$362.00	$17,538.00	$828.00	$529.00	$372.00	$57,259.00	$76,890.00
Unincorporated Harrison	$20,774.00	$20,196.00	$414.00	$0.00	$6,701.00	$374,178.00	$422,263.00
Totals	**$23,509.00**	**$171,664.00**	**$18,627.00**	**$10,574.00**	**$10,051.00**	**$823,878.0**	**$1,058,301.00**

Source: Missouri GIS Database, SEMA Mitigation Management Section

Table 3.5. Building Counts by Usage Type

Jurisdiction	Agriculture Counts	Commercial Counts	Education Counts	Government Counts	Industrial Counts	Residential Counts	Total
City of Bethany	407	162	38	13	8	1,211	1,839
Village of Blythedale	42	2	0	0	0	99	143

City of Cainsville	165	23	1	0	0	157	346
Village of Eagleville	48	36	3	1	0	147	235
Gilman City	132	8	0	2	0	221	363
Village of Mt. Moriah	73	11	0	0	0	70	154
City of New Hampton	91	10	0	3	0	158	262
City of Ridgeway	147	33	2	1	1	301	485
Unincorporated Harrison County	8,389	38	1	0	18	1,967	10,413
Totals	**9,494**	**323**	**45**	**20**	**27**	**4,331**	**14,240**

Source: Missouri GIS Database, SEMA Mitigation Management Section; Public School Districts and Special Districts

Even though schools and special districts' total assets are included in the tables above, additional discussion is needed, based on the data that is available from the districts' completion of the Data Collection Questionnaire and district-maintained websites. 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). These numbers will represent the total enrollment and building count for the public school districts regardless of the county in which they are located.

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

Public School District	Assessed Valuation	Enrolment	Building Count	Building Exposure ($)	Contents Exposure ($)	Total Exposure
North Harrison R-III	25,066,330	200	4	$14,145,179	$2,339,148	$16,544,325
Ridgeway R-V	ND	62	2	$9,205,128	$1,987,140	$11,192,268
South Harrison Co. R-II	91,668,038	741	4	$44,888,249	$13,394,600	$58,282,849

Source: MCDS Portal | Missouri Department of Elementary and Secondary Education - MCDS (mo.gov), select the file for the most recent year called "20xx Building Enrollment PK-12", filter the spreadsheet by selecting only the public school districts in the planning area. The Building Exposure, Contents Exposure, and Total Exposure amounts come from the completed Data Collection Questionnaires from Public School Districts. In general, the school districts obtain this information from their insurance coverage amounts.

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. The list was compiled from the Data Collection Questionnaire as well as the following sources:

- Interview with County Emergency Management Director

- Interview with City Government Employees
- HAZUS
- Data Collection Questionnaires

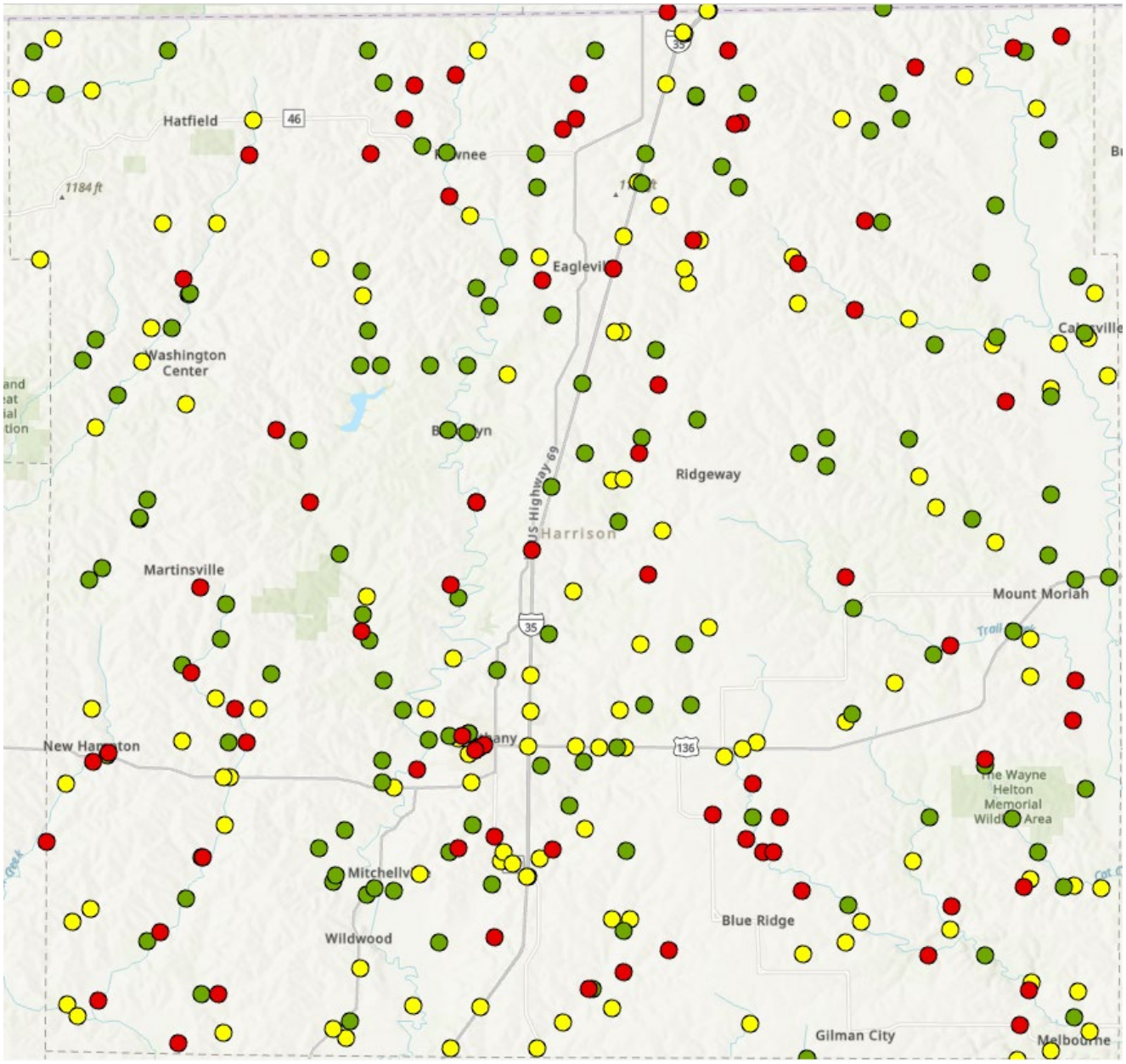
Table 3.7. Inventory of Critical/Essential Facilities and Infrastructure by Jurisdiction

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	TOTAL
Harrison County	0	0	0	1	0	1	2	3	1	1	34	0	0	3	0	1	0	0	0	4	0	9	0	61
City of Bethany	1	0	4	0	3	1	1	0	0	0	15	3	0	9	2	1	1	0	4	8	1	15	1	70
Village of Blythedale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
City of Cainsville	0	0	0	1	0	0	1	1	0	0	4	1	0	1	0	0	1	0	1	4	1	1	1	18
Village of Eagleville	0	0	1	0	0	0	1	0	0	1	2	1	0	2	0	0	1	0	0	5	0	6	0	20
City of Gilman City	0	0	0	0	0	0	1	2	0	0	0	1	0	1	0	0	1	0	1	8	0	3	1	19
City of New Hampton	0	0	0	0	0	1	1	0	0	1	4	1	0	1	0	0	1	0	5	0	1	1	1	18
City of Ridgeway	0	0	0	2	0	1	1	1	0	0	4	0	0	2	0	0	2	0	2	1	1	0	2	19
Totals	1	0	5	4	3	4	8	7	1	3	63	7	0	19	2	2	7	0	13	30	4	35	6	224

Source: Missouri 2023 State Hazard Mitigation Plan and Hazard Mitigation Viewer; Data Collection Questionnaires; Hazus, etc.

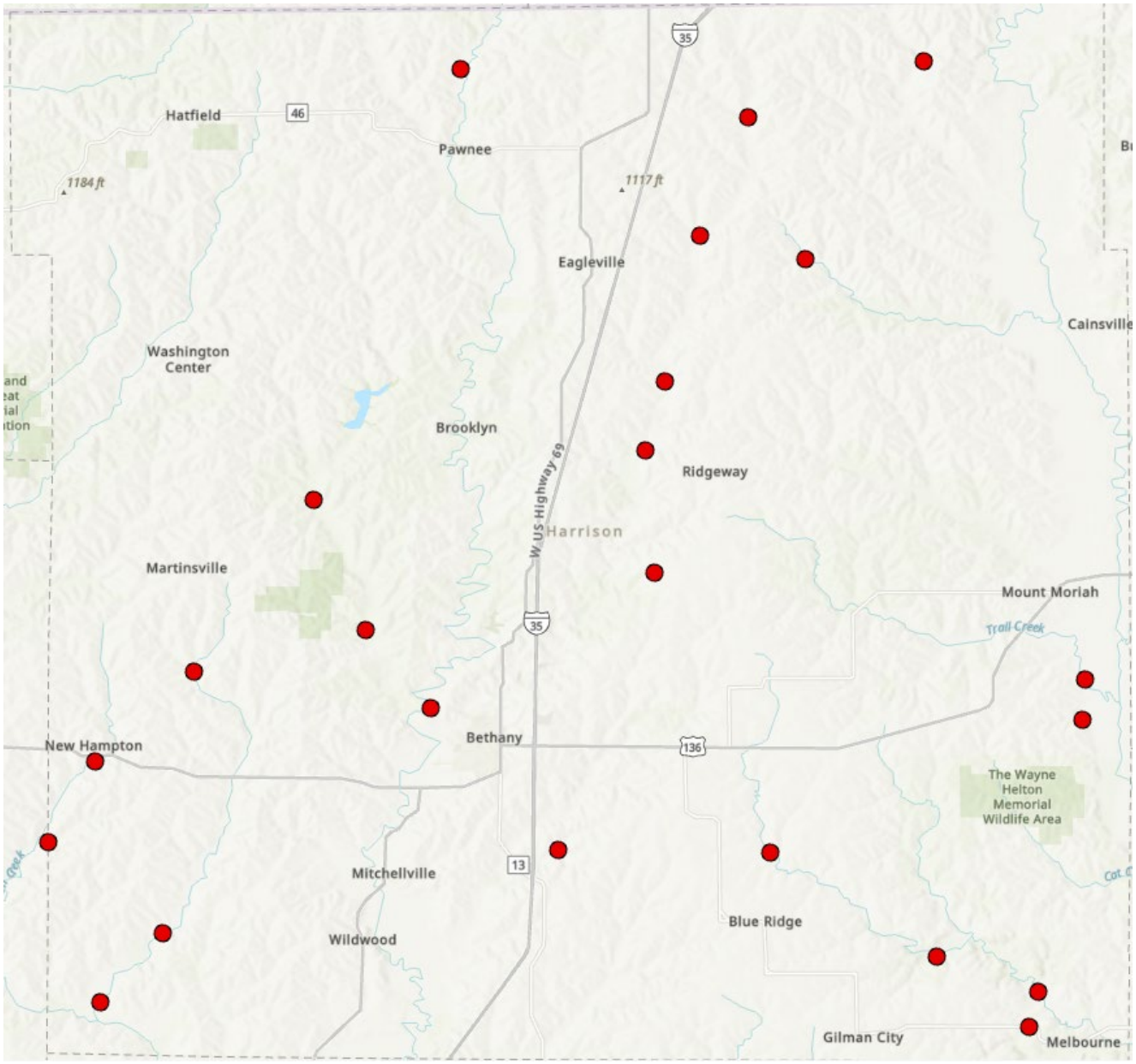
The term “scour critical” refers to one of the database elements in the National Bridge Inventory. This element is quantified using a “scour index”, which is a number indicating the vulnerability of a bridge to scour during a flood. Bridges with a scour index between 1 and 3 are considered “scour critical”, or a bridge with a foundation determined to be unstable for the observed or evaluated scour condition.

Figure 3.1. Harrison County Bridges



There are 23 bridges defined as “Scour Critical” in the planning area. None of these bridges are located within city limits or on numbered or lettered routes.

Figure 3.2. Harrison County Structurally Deficient Bridges



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.

Threatened and Endangered Species:

Table 3.8. Threatened and Endangered Species In Harrison County

Common Name	Scientific Name	Status
Eastern Prairie Fringed Orchid	Platanthera Leucophaea	Threatened
Gray Bat	Myotis Grisescens	Endangered
Indiana Bat	Myotis Sodalis	Endangered
Mead's Milkweed	Asclepias Meadii	Threatened
Monarch Butterfly	Danaus Plexippus	Candidate
Northern Long-Eared Bat	Myotis Septentrionalis	Threatened
Topeka Shiner	Notropis Topeka (=Tristis)	Endangered
Tricolored Bat	Perimyotis Subflavus	Proposed Endangered
Western Prairie Fringed Orchid	Platanthera Praeclara	Threatened

Source: U.S. Fish and Wildlife Service, Listed Species (fws.gov); see also 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.

Natural Resources: The Missouri Department of Conservation (MDC) provides a database of lands the MDC owns, leases, or manages for public use. The following table provides a list of the names and locations of parks and conservation areas in Harrison County.

Table 3.9. Parks in Harrison County

Park / Conservation Area	Address	City
The Wayne Helton Memorial Wildlife Area	From Bethany, take HWY 136 east 9 miles, then Route CC south (right) 3 miles to the area	Bethany
Old Bethany City Lake	From Bethany, take HWY 69 north 1.5 miles	Bethany
North Bethany City Reservoir	From Bethany, take HWY 69 north 2 miles, then W 280th St. west 0.25 miles to area entrance	Bethany
Grand Trace Conservation Area	From the west end of Main St. in Bethany, take Route W north 2.5 miles, then Route F west 5.5 miles to the west entrance of the area.	Bethany
Harrison County Lake	From Bethany, take Route W north approximately 9 miles, then W222 Street west 0.5 miles to the area.	North of Bethany
Pawnee Prairie Natural Area	From Hatfield, take West 140th Avenue south 0.5 miles	South of Hatfield

Source: Missouri Department of Conservation: Find Places to Go

Historic Resources: 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.

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

Property	Address	City	Date Listed
Hamilton House	1228 W Main	Bethany	April 11, 1985
Slatten House	Rural Harrison County; HWY 4	Bethany	July 9, 1984

Source: National Register of Historic Places – Spreadsheet of NRHP Listed Properties
https://www.nps.gov/subjects/nationalregister/data-downloads.htm

Economic Resources: The following table lists the major non-government employers in Harrison County.

Table 3.11. Major Non-Government Employers in Harrison County

Employer Name	Main Locations	Product or Service	Employees
Harrison County Comm	Bethany	Healthcare	200+
Walmart	Bethany	Retail, big box store	200+
Tractor Supply	Bethany	Farm Products Retail Service	30
Hy-Vee	Bethany	Grocery Store	50
Unified Services	Bethany	Freight/Shipping	70
School Districts	Jurisdictions	Education	Varies
John Deere	Bethany	Farm Equipment Sales	20
Maschoff	Bethany	Car Dealership	20
Nail Excavating	Bethany	Heavy Equipment/Construct	20
Dale Farms	Ridgeway	Farming	20
Pettijohn Auto Center	Bethany	Automotive sales and svc	15
Love's Truck Stop	Eagleville	Gas/Convenience Store	50

Source: Data Collection Questionnaires; local Economic Development Commissions

Agriculture: Agriculture plays an important tole in the economy of Harrison County. While exact employment numbers are not broken out by sector at the county level, the high number of farms (1,013) and the large share of land in agriculture (77.8%) suggest that a significant portion of the local workforce is tied to agriculture, either directly or indirectly.

Agriculture in Harrison County is a cornerstone of the local economy as a major source of employment and business activity. It also is a driver of economic resilience and rural development.

Table 3.12. Economic Contribution of Missouri Agriculture and Forestry for Harrison County

	Added Value (in $million)	Value-Added (in $million)	Jobs Supported	Household Income Generated (in $million)
Harrison County	$69.7	$177.3 Million	1,680	$86.6

Source: 2021 Missouri Economic Contribution of Agriculture and Forestry Study

Table 3.13. Top Crops in Acres in Harrison County

Harrison	Soybeans	Corn	Forage	Wheat	Corn for Silage
Acres	95,028	58,248	37,095	528	235

Source: USDA Census of Agriculture

Table 3.14. Top Livestock by Inventory

Harrison County	Cattle & Calves	Layers (egg-laying hens)	Sheep & Lambs	Goats	Horses & Ponies	Hogs & Pigs
# Present	27,015	1,523	1,031	537	487	Data not disclosed, but present

Source: USDA Census of Agriculture

Figure 3.3. 2022 Census of Agriculture for Harrison County

2022 CENSUS OF AGRICULTURE *County Profile*





Harrison County
Missouri

Total and Per Farm Overview, 2022 and change since 2017

	2022	% change since 2017
Number of farms	987	+1
Land in farms (acres)	403,261	+3
Average size of farm (acres)	409	+2
Total	($)	
Market value of products sold	135,390,000	+46
Government payments	9,911,000	-4
Farm-related income	9,941,000	+30
Total farm production expenses	90,170,000	+9
Net cash farm income	65,073,000	+134
Per farm average	($)	
Market value of products sold	137,173	+44
Government payments [a]	16,856	+7
Farm-related income [a]	23,391	+52
Total farm production expenses	91,357	+7
Net cash farm income	65,930	+131

1 Percent of state agriculture sales

Share of Sales by Type (%)

Crops	81
Livestock, poultry, and products	19

Land in Farms by Use (acres)

Cropland	278,734
Pastureland	63,960
Woodland	42,660
Other	17,907

Acres irrigated: (D)

(D)% of land in farms

Land Use Practices (% of farms)

No till	23
Reduced till	12
Intensive till	10
Cover crop	4

Farms by Value of Sales

	Number	Percent of Total [b]
Less than $2,500	459	47
$2,500 to $4,999	63	6
$5,000 to $9,999	66	7
$10,000 to $24,999	99	10
$25,000 to $49,999	109	11
$50,000 to $99,999	73	7
$100,000 or more	118	12

Farms by Size

	Number	Percent of Total [b]
1 to 9 acres	32	3
10 to 49 acres	158	16
50 to 179 acres	344	35
180 to 499 acres	268	27
500 to 999 acres	105	11
1,000+ acres	80	8

USDA United States Department of Agriculture
National Agricultural Statistics Service
www.nass.usda.gov/AgCensus

Figure 3.4. 2022 Census of Agriculture for Harrison County (Pg. 2)

Harrison County
Missouri, 2022
Page 2

2022 CENSUS OF AGRICULTURE *County Profile*

Market Value of Agricultural Products Sold

	Sales ($1,000)	Rank in State [c]	Counties Producing Item	Rank in U.S. [c]	Counties Producing Item
Total	**135,390**	**47**	**114**	**1,160**	**3,078**
Crops	**109,889**	**22**	**114**	**772**	**3,074**
Grains, oilseeds, dry beans, dry peas	106,675	21	109	592	2,917
Tobacco	-	-	2	-	267
Cotton and cottonseed	-	-	7	-	647
Vegetables, melons, potatoes, sweet potatoes	(D)	94	112	(D)	2,831
Fruits, tree nuts, berries	(D)	89	112	(D)	2,711
Nursery, greenhouse, floriculture, sod	45	70	104	1,584	2,660
Cultivated Christmas trees, short rotation woody crops	-	-	36	-	1,274
Other crops and hay	3,131	26	114	1,043	3,035
Livestock, poultry, and products	**25,501**	**67**	**114**	**1,583**	**3,076**
Poultry and eggs	57	81	113	1,593	3,027
Cattle and calves	19,076	51	114	868	3,047
Milk from cows	-	-	84	-	1,770
Hogs and pigs	5,877	42	111	489	2,814
Sheep, goats, wool, mohair, milk	350	22	111	569	2,967
Horses, ponies, mules, burros, donkeys	37	87	113	1,951	2,907
Aquaculture	-	-	36	-	1,190
Other animals and animal products	105	23	106	948	2,909

Producers [d]	**1,816**
Sex	
Male	1,205
Female	611
Age	
<35	198
35 – 64	852
65 and older	766
Race	
American Indian/Alaska Native	5
Asian	2
Black or African American	-
Native Hawaiian/Pacific Islander	-
White	1,794
More than one race	15
Other characteristics	
Hispanic, Latino, Spanish origin	7
With military service	191
New and beginning farmers	532

Percent of farms that:

Have internet access	**67**
Farm organically	**-**
Sell directly to consumers	**1**
Hire farm labor	**18**
Are family farms	**94**

Top Crops in Acres [e]

Soybeans for beans	95,028
Corn for grain	58,248
Forage (hay/haylage), all	37,095
Wheat for grain, all	528
Corn for silage/greenchop	235

Livestock Inventory (Dec 31, 2022)

Broilers and other meat-type chickens	510
Cattle and calves	27,015
Goats	537
Hogs and pigs	(D)
Horses and ponies	487
Layers	1,523
Pullets	230
Sheep and lambs	1,031
Turkeys	38

[a] Average per farm receiving. [b] May not add to 100% due to rounding. [c] Among counties whose rank can be displayed. [d] Data collected for a maximum of four producers per farm. [e] Crop commodity names may be shortened; see full names at www.nass.usda.gov/go/cropnames.pdf. [f] Position below the line does not indicate rank. (D) Withheld to avoid disclosing data for individual operations. (NA) Not available. (Z) Less than half of the unit shown. (-) Represents zero.

USDA is an equal opportunity provider, employer, and lender.

3.3 LAND USE AND DEVELOPMENT

3.3.1 Development Since Previous Plan Update

The following table shows a significant and steady loss of population in most of the communities in Harrison County. Most of the jurisdictions have shown a trend in declining population between 2010 and 2020. However, the 2023 ACS shows several jurisdictions estimated to have increased populations, but anecdotal accounts do not support these estimates. Note: data in this table is also in **Table 2.1** in Chapter 2.

Table 3.15. Harrison County Population Growth, 2010-2023

Jurisdiction	2010 Population	2020 Population	2023 Annual Population Estimate or ACS Population	# Change (2010-2023)	% Change (2010-2023)
Harrison County	8,957	8,157	8,198	-759	-8.5%
Harrison County Unincorporated	3,641	3,469	2,809	-832	-22.9%
City of Bethany	3,292	2,915	3,164	-128	-3.9%
Village of Blythedale	193	211	357	164	85.0%
City of Cainsville	290	283	207	-83	-28.6%
Village of Eagleville	316	275	350	34	10.8%
Gilman City	383	329	355	-28	-7.3%
Village of Mt. Moriah	87	75	129	42	48.2%
City of New Hampton	291	228	302	11	3.8%
City of Ridgeway	464	372	525	61	13.1%

Source: U.S. Bureau of the Census, Decennial Census, annual population estimates/ 5-Year American Community Survey 2023;
*population includes the portions of these cities in adjacent counties

Population growth or decline is generally accompanied by increases or decreases in the number of housing units. The following table provides the change in numbers of housing units in the planning area from 2010 to 2023. This table includes the most recent data available, the American Community Survey 5-year Estimates.

Table 3.16. Change in Housing Units, 2010-2023

Jurisdiction	Housing Units 2010	Housing Units 2023	2010-2023 # Change	2000-2023 % Change
Harrison County	4,407	4,023	-384	-8.71%
Bethany	1,602	1,509	-93	-5.81%
Blythedale	83	138	55	66.27%
Cainsville	175	149	-26	-14.86%
Eagleville	149	154	5	3.36%
Gilman City	196	168	-28	-14.29%
Mt. Moriah	69	79	10	14.49%
New Hampton	153	174	21	13.73%
Ridgeway	304	216	-88	-28.95%

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

Vulnerability to hazards will be affected based on population and where new housing units have been built. Due to lack of expected growth in population, vulnerability is not expected to increase. The lack

of city and county building ordinances is appealing to residential builders, however, the county is rural and its location has not been a popular area for development. The rural area is mostly comprised of farmland and the value of the farmland exceeds the attraction for new residential development. However, vulnerability is a concern as the population ages in rural Harrison County, since the farmers in the area are aging and land sales for anything other than agricultural uses is not on an upward trend.

3.3.2 Future Land Use and Development

The population of Harrison County and participating jurisdictions has been declining steadily for at least the last ten years. Due to a lack of population, there has been little in the way of new developments. No new development is expected to occur in known hazard areas, and no new facilities or infrastructure is planned for construction within the next five years.

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 in alphabetical order.

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. 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, use maps 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. This section should also include information on the typical or expected strength/magnitude/extent of the hazard in the planning area. 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 can be 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 should be 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 can be 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.

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. The vulnerability assessments can also be based on data that was collected for the 2023 State Hazard Mitigation Plan Update. With the 2023 Hazard Mitigation Plan Update, SEMA is pleased to provide online access to the risk assessment data and associated mapping for the 114 counties in the State, including the independent City of St. Louis. Through the web-based Missouri Hazard Mitigation Viewer, local planners or other interested parties can obtain all State Plan datasets. This effort removes from local mitigation planners a barrier to performing all the needed local risk assessments by providing the data developed during the 2023 State Plan Update.

The Missouri Hazard Mitigation Viewer includes a Map Viewer with a legend of clearly labeled features, a north arrow, a base map that is either aerial imagery or a street map, risk assessment data symbolized the same as in the 2023 State Plan for easy reference, search and query capabilities, ability to zoom to county level data and capability to download PDF format maps. The Missouri Hazard Mitigation Viewer can be found at this link: http://bit.ly/MoHazardMitigationPlanViewer2023.

The vulnerability assessments in the County A 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; and
- Other sources as cited.

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

- **Vulnerability Overview:**

  This section will provide a summary of each jurisdiction's vulnerability to the identified

hazards. This overall summary of vulnerabilities will identify structures, systems, populations, and/or other community assets as defined by the community that are susceptible to damage and loss for hazard events.

- **Potential Losses to Existing Development:**

  This section will include the potential impacts of the hazard for each participating jurisdiction. This will include types and numbers of buildings, critical facilities, etc. Impact means the consequences and effect the hazard could pose to the jurisdiction and its assets. The assets are determined by the community and include, for example, people, structures, facilities, systems, capabilities, and/or activities that have value to the community. For example, impacts could be described by referencing historical disaster impacts and/or an estimate of potential future losses.

- **Previous and Future Development:**

  This section will include information on how changes in development have impacted the community's vulnerability to this hazard. In this section, there will be a description of how any changes that occurred in known hazard prone areas since the previous plan have increased or decreased.

- **Hazard Summary by Jurisdiction:**

  For hazard risks that vary by jurisdiction, this section will include an overview of the variation and the factual basis for that variation.

Problem Statements

In each problem statement, the hazard analysis will conclude with a summary of the problems created by the hazard in the planning area, and possible ways to resolve those problems. This will include jurisdiction-specific information in those cases where the risk varies across the planning area. The focus of the problem statements sub-section is to synthesize the "problems" revealed through the risk assessment and then through the process of updating the mitigation strategy, develop mitigation actions that are aimed at "solving" the identified problems. Problem statements should be as specific as possible. Problems that are specific to jurisdictions or to specific assets or areas of the planning area that are problematic should be addressed. The goal of this is to prompt the development of specific mitigation actions that could be undertaken to potentially solve or lessen the effects of hazards.

3.4.1 Flooding (Riverine and Flash)

Hazard Profile

Hazard Description

A flood is partial or a 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. Riverine flooding is defined as the overflow of rivers, streams, drains, and lakes due to excessive rainfall, rapid snowmelt or ice melt. 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 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 a full peak in only a few minutes. Rapid onset allows little or no time for protective measures. Flash flood water moves 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 high probability, yet generally unpredictable nature of flash flooding in the planning area.

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 the 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). Flash flooding occurs in SFHAs and those locations in the planning area that are low-lying. They also occur in areas without adequate drainage to carry away the amount of water that falls during intense rainfall events.

Riverine flooding is most likely to occur in SFHAs. The following maps are from the most recent information from FEMA's National Flood Layer of Harrison County. The following key is the flood map key for all jurisdictions flood maps. The following maps are currently in "pending" status.

Figure 3.5. Flood Map Key

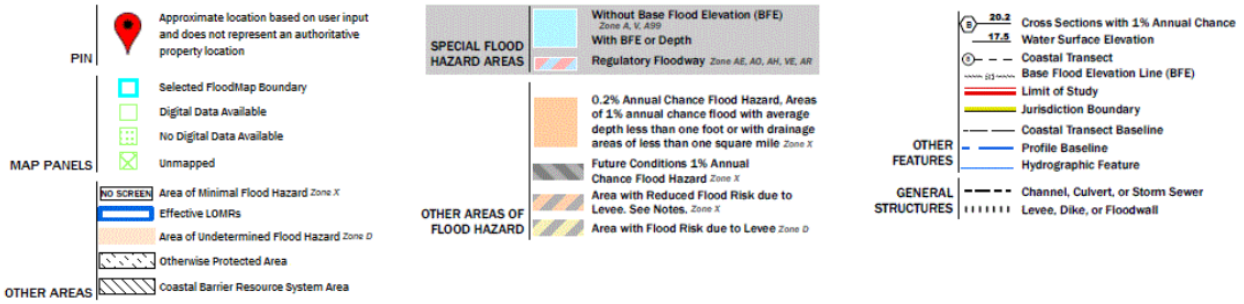
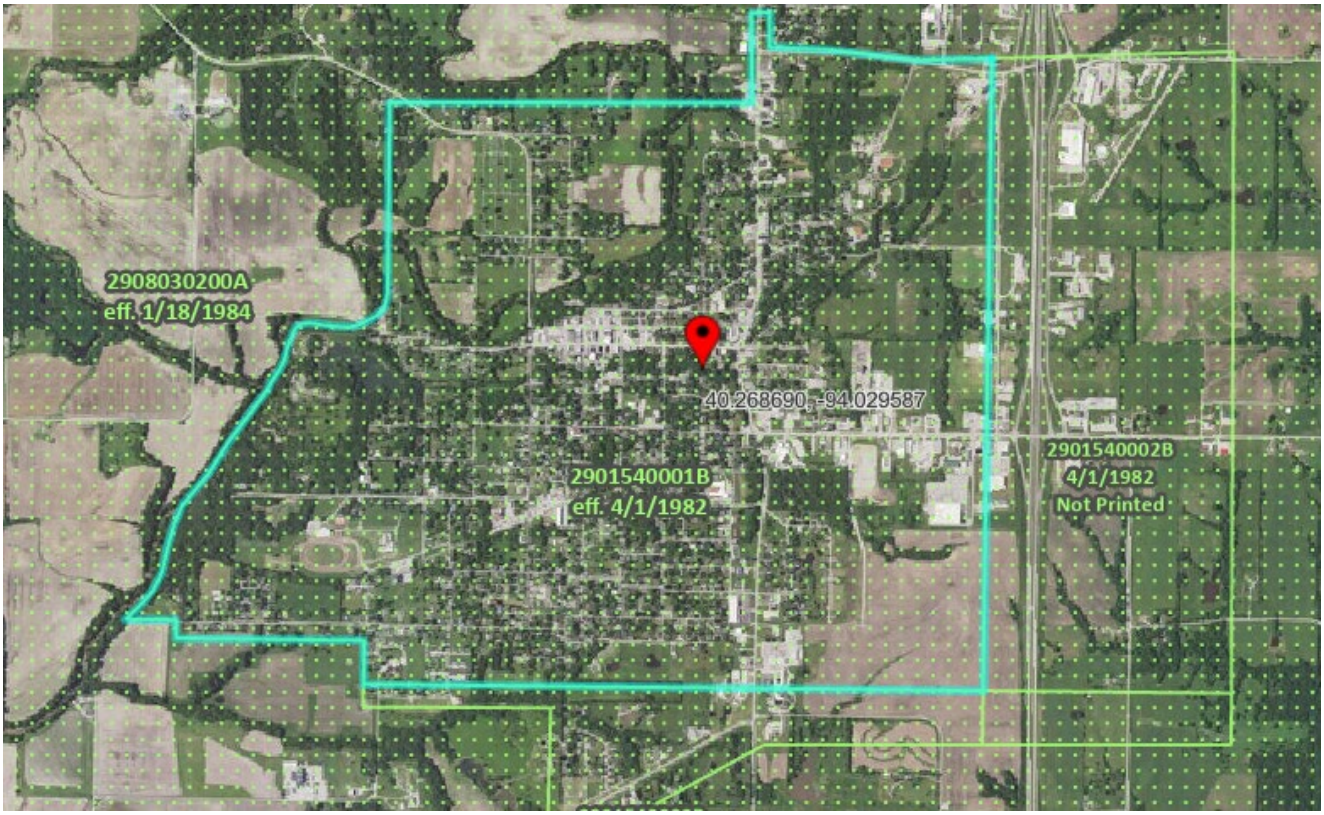
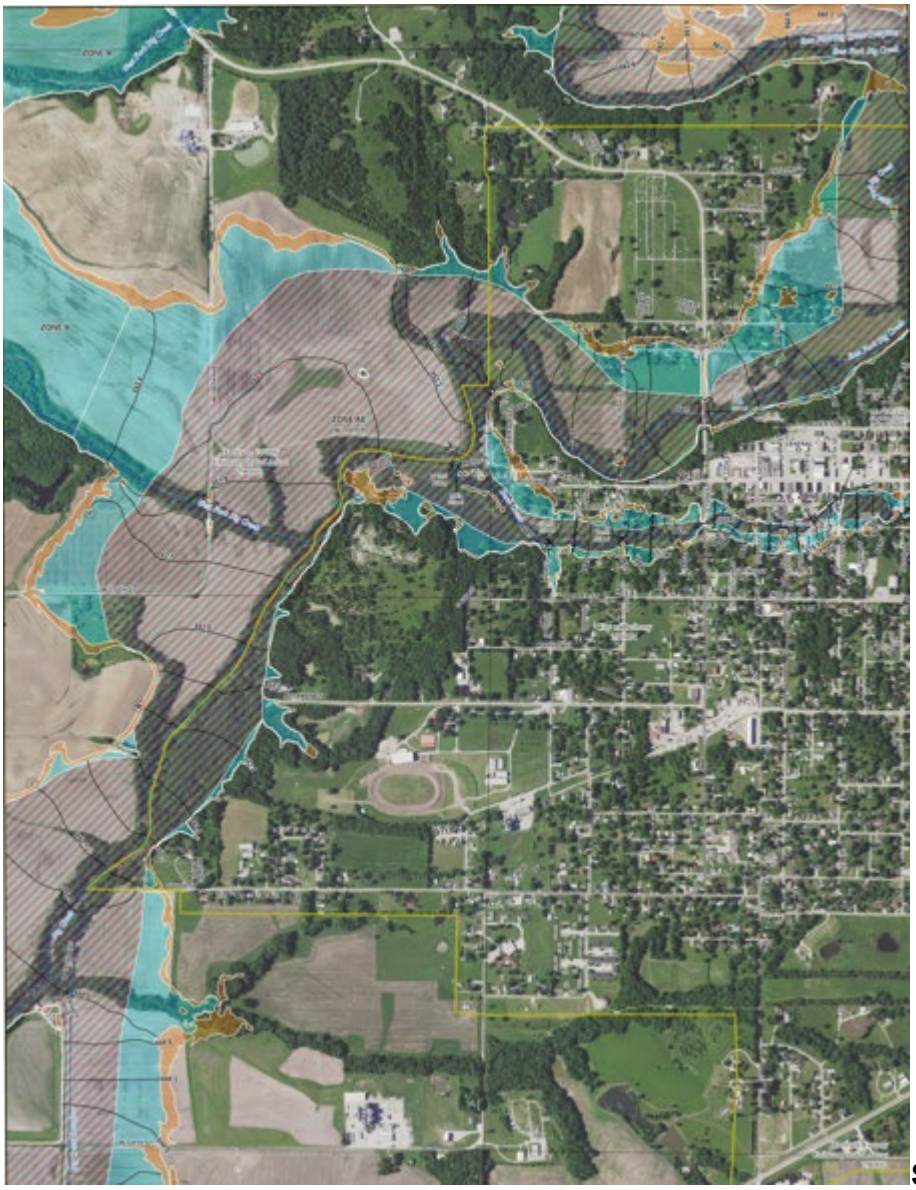


Figure 3.6. City of Bethany (County Seat)





South East



South West



North East

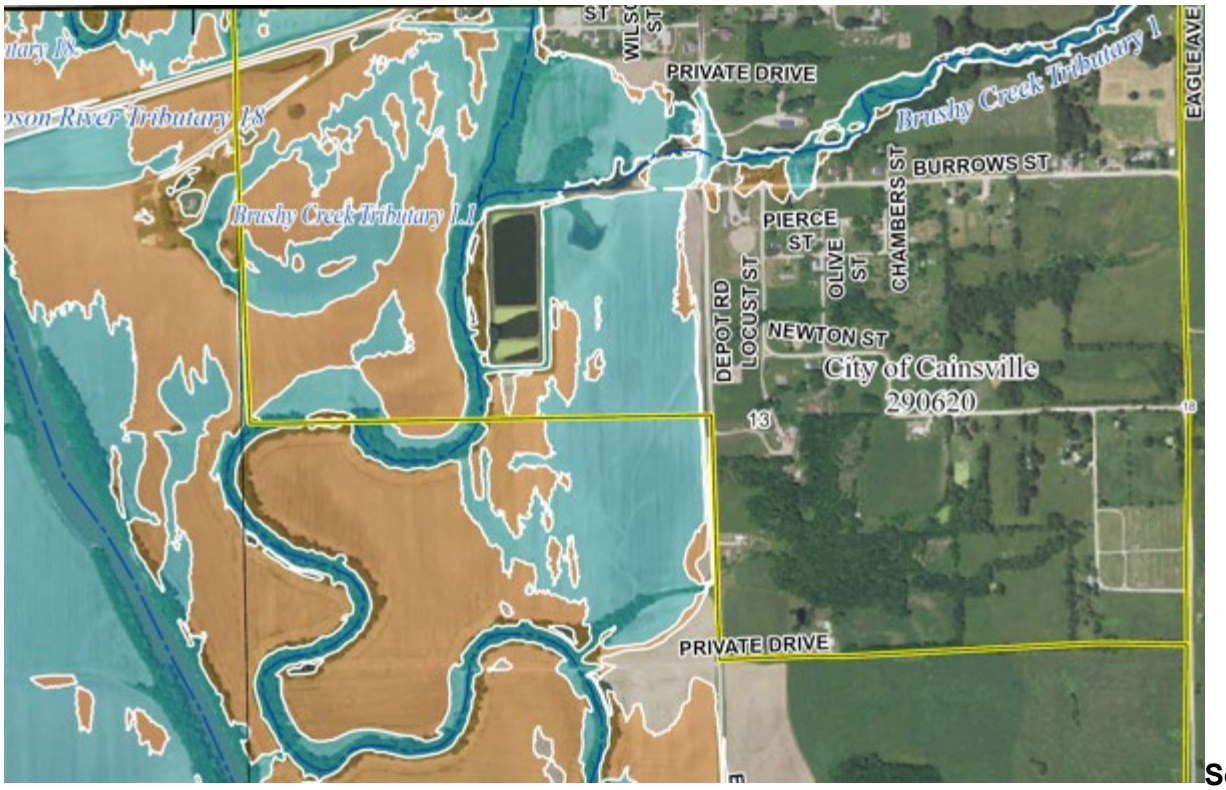


North West

Figure 3.7. City of Cainsville


DAIR RD
PRIVATE DRIVE
E 340TH AVE
E 345TH AVE
Little Creek
ZONE A
PRIVATE DRIVE
E 340TH LN
EDITH ST
NORTH ST
LOUISE ST
VINE ST
City of Cainsville
29620
AKRON RD
BAINES
OLIVER CT
PARK AVE
NORTH ST
VINE ST
LYNN ST
UNION ST
BOOTH ST
ELM ST
LAFAYETTE ST
HARRISON ST
VICTORY LN
DEPOT RD
MAIN ST
ZONE A
ZONE A
Brushy Creek Tributary 1.1
N

North



South

Figure 3.8. Village of Eagleville



Figure 3.9. City of Gilman City



East



West

Figure 3.10. Village of Mount Moriah

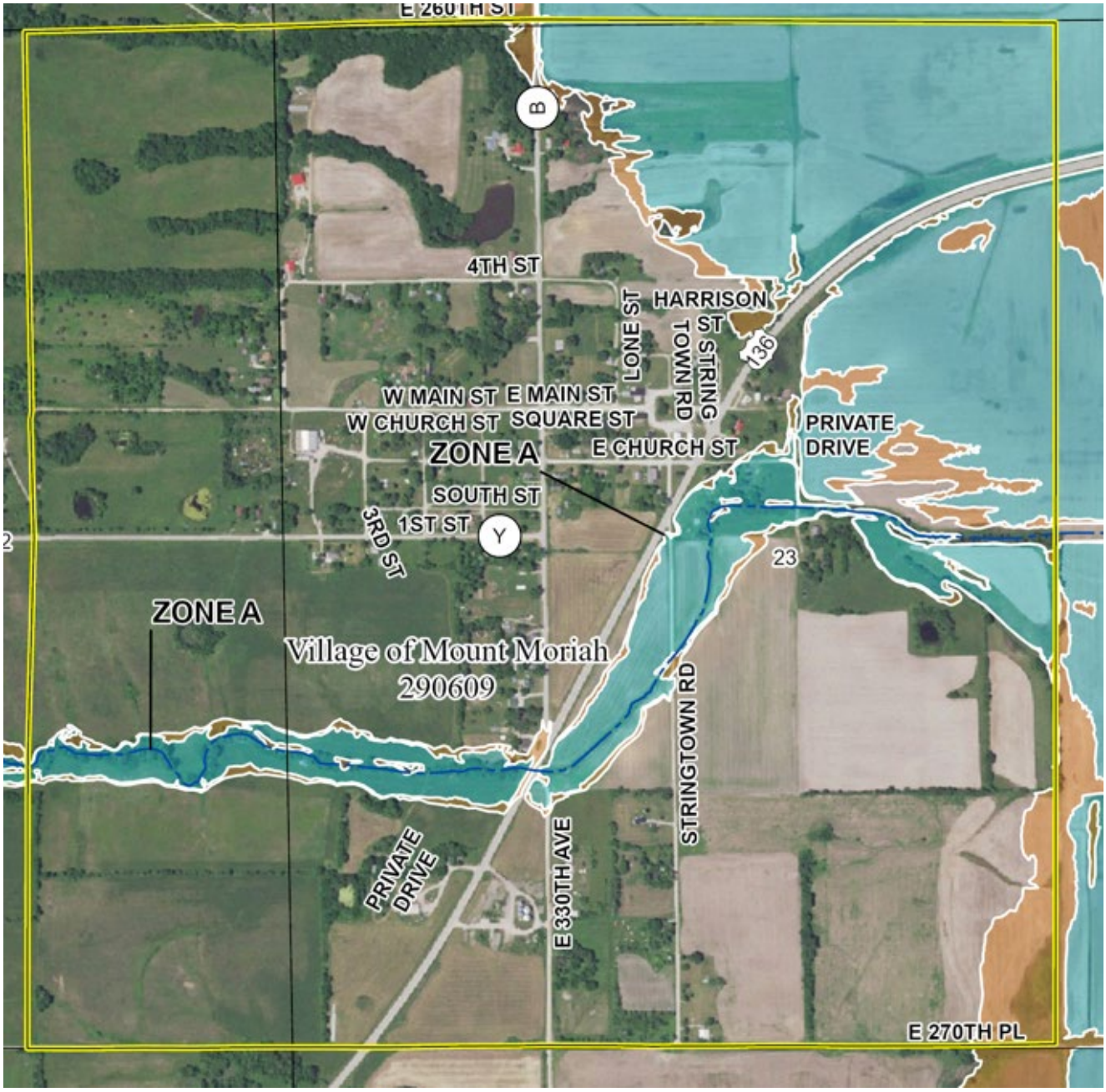


Figure 3.11. City of New Hampton



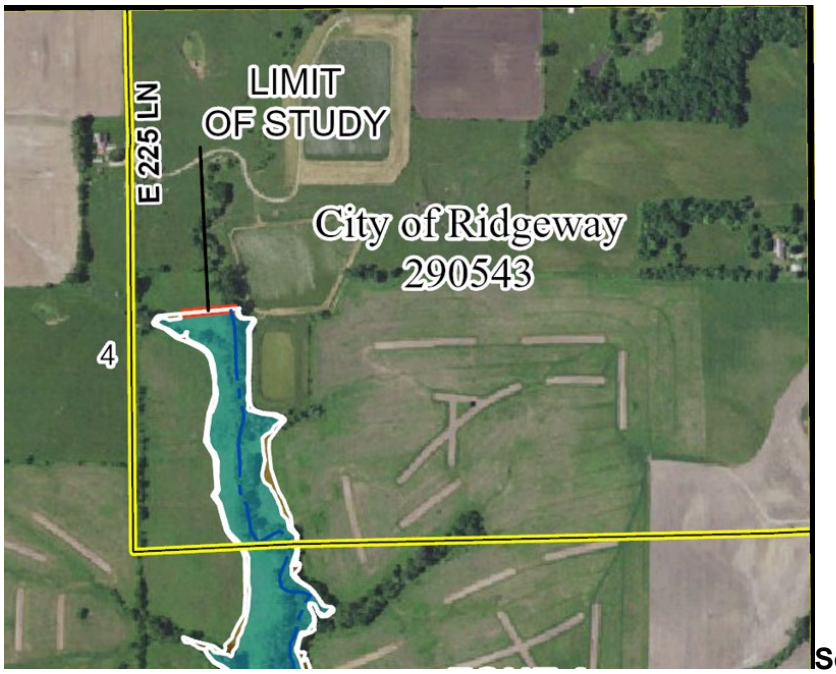
Figure 3.12. City of Ridgeway



North



South East



Southwest

Table 3.17. Harrison County NCEI Flood Events by Location, 2005-2025

Location	# of Events
Unincorporated Harrison County	2
-Unincorporated County (Melbourne)-2 flood events	
City of Bethany	1
-City of Bethany (unspecified)- 1 flood events	
Total	**3**

Source: National Centers for Environmental Information, 7/24/2025

Flash flooding occurs in SFHAs and those locations in the planning area that are low-lying. They also occur in areas without adequate drainage to carry away the amount of water that falls during intense rainfall events. The following table provides the locations and frequency of events from 2005 to 2025. Also included in the "Previous Occurrences" section, is a table that contains the event narratives from the NCEI database, which provides additional information about the past flash flood events in the planning area.

Table 3.18. Harrison County NCEI Flash Flood Events by Location, 2004-2025

Location	# of Events
Unincorporated Harrison County	6
-Unincorporated Harrison County (Hatfield)- 1 flood events	
-Unincorporated County (Bridgeport)-1 flood events	
-Unincorporated County (Blue Ridge)-2 flood events	
-Unincorporated County (Martinsville)- 1 flood event	
-Unincorporated County (Mitchellville)- 1 flood event	
City of Bethany	6
-City of Bethany (unspecified)- 4 flood events	
-City of Bethany (Bethany Memorial Airport)- 2 flood events	
City of Cainsville	1
-City of Cainsville (unspecified)-1 flood events	
City of Gilman City	1
-City of Gilman City (unspecified)- 1 flood events	
City of Mt. Moriah	

-City of Mt. Moriah (unspecified)-1 flood events	1
City of New Hampton	1
-City of New Hampton (unspecified)- 1 flood event	
Total	**17**

Source: National Centers for Environmental Information, 7/24/2025

Strength/Magnitude/Extent

Missouri has a long and active history of flooding over the past century, according to the 2023 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

The following table lists the participants in the NFIP. Participation in the NFIP has the goal of reducing the impact of flooding on private and public structures. The NFIP does so by providing affordable insurance to property owners and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures. The jurisdictions that participate in the NFIP in Harrison County are listed below.

- City of Cainsville
- City of Bethany
- City of Ridgeway
- City of New Hampton

The most recent flood map for Harrison County became effective on December 26, 2025.

Harrison County has not historically participated in the NFIP. However, recent and more accurate flood mapping products produced by FEMA and the increasingly standard requirement of flood plain information for real estate transactions have caused renewed discussion within the county about NFIP participation.

Eagleville and Gilman City are both shown on the current flood maps to have no flood hazard areas. Since neither jurisdiction contains at risk areas and both lack adequate staff, participation in the NFIP is unlikely to become a priority.

Table 3.19. NFIP Participation in Harrison County – Ordinance and Enforcement Information

Community ID #	Community Name	NFIP Participant (Y/N/Sanctioned)	Floodplain Administrator and/or Agency	Phone # for Floodplain Administrator
290803	Harrison County	No	n/a	n/a
290550	New Hampton	Yes	Kerri Peters	660-439-4315
290543	Ridgeway	Yes	Jesse Hale	660-872-6414
290154	Bethany	Yes	Jacob Denum	660-425-3511
290620	Cainsville	Yes	Rebecca Deskins	660-893-5315
n/a	Eagleville	No	n/a	n/a

n/a	City of Gilman City	No	n/a	n/a

Source: NFIP Community Status Book, 7/25/2025; PIVOT (information from STATE) Community Status Book | FEMA.gov; M= No elevation determined – all Zone A, C, and X: NSFHA = No Special Flood Hazard Area; E=Emergency Program

Table 3.20. NFIP Participation in Harrison County- Mapping Information

Community ID #	Community Name	Current Effective Map Date	Regular- Emergency Program Entry Date
290550	New Hampton	05/01/1994	Emergency: 10/26/1992
290543	Ridgeway	05/01/1994	Emergency: 10/26/1992
290154	Bethany	04/01/1982	Emergency: 06/19/1975
290620	Cainsville	Unknown	Regular: 10/10/1997

Source: NFIP Community Status Book, 7/25/2025; PIVOT (information from STATE) Community Status Book | FEMA.gov; M= No elevation determined – all Zone A, C, and X: NSFHA = No Special Flood Hazard Area; E=Emergency Program

The jurisdictions that participate in the NFIP have adopted Floodplain Ordinances that establish regulations for construction, development, and substantial improvements within floodplain areas. These regulations mandate the acquisition of floodplain development permits and elevation certificates to ensure that all projects comply with these standards. Records and documentation for all floodplain development is kept in adherence to FEMA regulations, and the designated floodplain administrator of each jurisdiction maintains these records.

Substantial improvements/substantial damage provisions are implemented after an event through the Floodplain Ordinance of participating jurisdictions. Each jurisdiction that participates in the NFIP has addressed the specific requirements of FEMA regarding substantial damage/substantial improvement provisions and development in SFHA.

Table 3.21. NFIP Policy and Claim Statistics as of July 2025

Community Name	Policies in Force	Insurance in Force	Closed Losses	Total Payments
New Hampton	0	0	0	0
Ridgeway	0	0	0	0
Bethany	2	$190,000.00	4	$86,959.52
Cainsville	0	0	0	0

Source: NFIP Community Status Book, [July 11, 2025]; PIVOT (information from STATE), Community Status Book | FEMA.gov
*Closed Losses are those flood insurance claims that resulted in payment. Loss statistics are current as of July 2025

The City of Bethany is the only city in the planning area that has any insurance in force. There have been 4 closed losses totaling $86,959.52.

Repetitive Loss/Severe Repetitive Loss Properties

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 0 (zero) repetitive loss properties. As of July 11, 2025.

Table 3.22. Harrison County Repetitive Loss Properties

Jurisdiction	# of Properties	Type of Property	# Mitigated	Building Payments	Content Payments	Total Payments	Average Payment	# of Losses
No properties listed								

Source: State emergency management agency – July 2025

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.

Table 3.23. Harrison County Severe repetitive loss properties

Jurisdiction	# of Properties	Type of Property	# Mitigated	Building Payments	Content Payments	Total Payments	Average Payment	# of Losses
No properties listed								

Source: State emergency management agency – July 2025

As of July 11, 2025, there are no Severe Repetitive Loss properties in the planning area.

Previous Occurrences

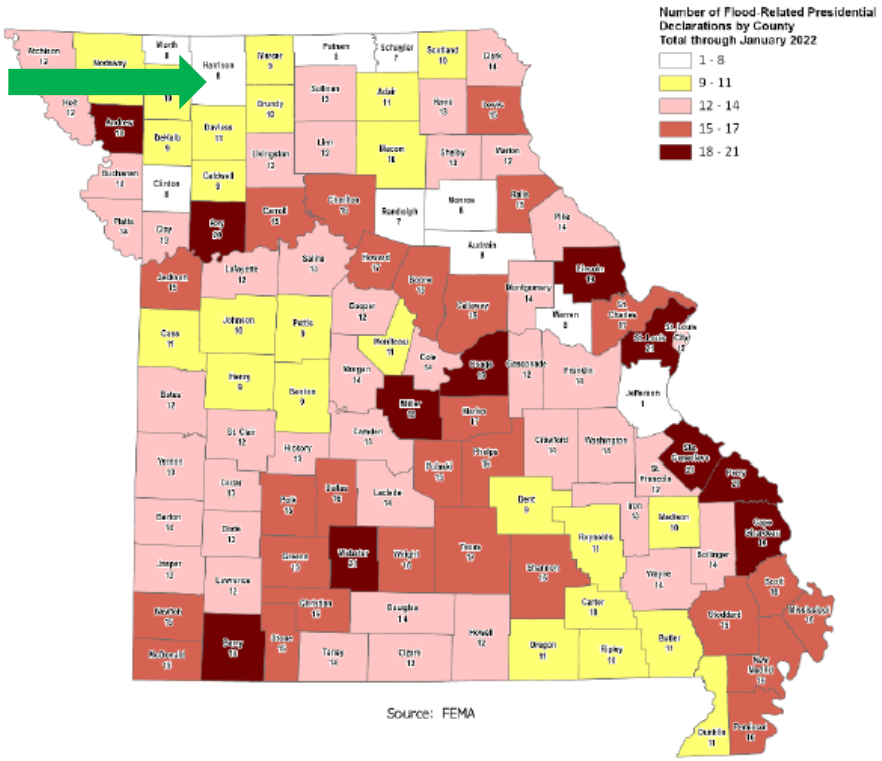
Table 3.24. Flooding Disaster Declarations in Harrison County (1973-2025)

Disaster Number	Declaration Date	Incident Subcategory	Information
372	4/19/1973	Severe Storms	Heavy Rains, Tornadoes, & Flooding
407	11/1/1973	Flood	Severe Storms & Flooding
995	7/9/1993	Flood	Severe Storms & Flooding
1524	6/11/2004	Severe Storm	Severe Storms, Tornadoes, & Flooding
1708	6/11/2007	Severe Storm	Severe Storms & Flooding
1773	6/25/2008	Severe Storm	Severe Storms & Flooding
1934	8/17/2010	Severe Storm	Severe Storms, Flooding, & Tornado
3325	6/30/2011	Flood	Flooding
4200	10/31/2014	Flood	Severe Storms, Tornadoes, Straight-Line Winds, and Flooding
4238	8/7/2015	Severe Storm	Severe Storms, Tornadoes, Straight-Line Winds, & Flooding
4451	7/9/2019	Severe Storm	Severe Storms, Tornadoes, & Flooding

Source: FEMA.gov/es/disaster/

Figure 3.13. Number of Flood-Related Presidential Declarations for Harrison County (1973-

2025)



Source: 2023 Missouri Hazard Mitigation Plan

The following table provides historic information of crop insurance claims paid between 2014 and 2024 in Harrison County.

Table 3.25. Crop Insurance Claims Paid in Harrison County due to Flood: 2014-2024

Crop Year	Crop Name	Cause of Loss	Insurance Paid ($)
2014	Corn	Flood	$4,866
	Soybeans		$95,918.20
	Corn	Excess Moisture/ Precipitation/ Rain	$442,180.70
	Grain Sorghum		$13,011
	Soybeans		$714,668.70
2015	Corn	Flood	$41,660
	Corn	Excess Moisture/ Precipitation/ Rain	$4,476,287
	Grain Sorghum		$15,398
	Soybeans		$3,395,773.64
	Wheat		$118,900
2016	Soybeans	Flood	$1,693
	Corn	Excess Moisture/ Precipitation/ Rain	$245,808.50
	Soybeans		$194,654.50
2017	Corn	Flood	$17,802
	Corn	Excess Moisture/ Precipitation/ Rain	$253,251
	Soybeans		$294,153
2018	Soybeans	Flood	$739
	Corn	Excess Moisture/ Precipitation/ Rain	$110,284.16
	Soybeans		$196,251
2019	Corn	Flood	$32,283
	Soybeans		$156,686
	Oats	Excess Moisture/ Precipitation/ Rain	$1,613
	Corn		$3,335,964.16
	Soybeans		$1,532,060.50
2020	*No Claims for Flood*		
	Corn	Excess Moisture/ Precipitation/ Rain	$336,138
	Soybeans		$293,618
2021	*No Claims for Flood*		
	Corn	Excess Moisture/ Precipitation/ Rain	$409,840.40
	Grain Sorghum		$12,471
	Soybeans		$492,545.60
2022	*No Claims for Flood*		
	Corn	Excess Moisture/ Precipitation/ Rain	$302,028
	Soybeans		$369,410
2023	Soybeans	Flood	$13,926
	Soybeans	Excess Moisture/ Precipitation/ Rain	$42,637
2024	*No Claims for Flood*		
	Corn	Excess Moisture/ Precipitation/ Rain	$82,539.50
	Soybeans		$228,739
Total			**$17,979,398.56**

Source: USDA Risk Management Agency http://www.rma.usda.gov/data/cause

According to the USDA Risk Management Agency, there have been a total of $17,979,398.56 in crop losses due to excess moisture/precipitation/rain and flood between the years 2014 and 2024. For the Cause of Loss of Flood alone, there have been a total of $365,573.20.

Table 3.26. NCEI Harrison County Flash Flood Events Summary, 2004-2025

Year	# of Events	# of Deaths	# of Injuries	Property Damages	Crop Damages

2004	2	0	0	0	0
2008	1	0	0	0	0
2009	3	0	0	0	0
2010	1	0	0	0	0
2017	3	0	0	0	0
2019	4	0	0	0	0
2021	1	0	0	0	0

Source: NCEI, data accessed July 2025.

Begin Date	Event Narrative
5/30/2004	Water covering routes A and B.
6/12/2004	Water and debris over Route H.
7/24/2008	Six inches of water was flowing across Highway D.
5/15/2009	Highway 136 was closed due to flooding.
6/1/2009	Water was reported running over Highway 13.
6/1/2009	Water was reported to be flowing over the road, in several spots, between Highway 136 and Highway 146.
6/5/2010	Highway N was reported impassable, due to running water.
6/28/2017	Emergency Management reported 6 inches of water running over HWY 69 near Bethany.
6/28/2017	Highway FF south of Martinsville was impassible due to high water.
6/28/2017	There were reports of numerous flooded roadways in Bethany, as well as water entering the basement of Harrison County Community Hospital.
5/28/2019	Several vehicles were stranded in Bethany due to rushing flood water.
5/28/2019	Flooding of 5 to 6 feet over roads in Bethany continued due to heavy rains through the morning and afternoon.
5/28/2019	After several hours of heavy rain significant flooding near Bethany continued. Damage estimates are unknown.
8/29/2019	Abnormal street flooding occurred in Bethany.
6/24/2021	Several roads and highways had running water in and around Bethany.

Source: NCEI Database July 2025.

Table 3.27. NCEI Harrison County Riverine Flood Events Summary, 2005-2025

Year	# of Events	# of Deaths	# of Injuries	Property Damages	Crop Damages
2011	1	0	0	0	0
2019	2	0	0	0	0

Source: NCEI, 7/24/2025

Table 3.28. Flood Event Narratives – 2005-2025

Begin Date	Event Narrative
6/9/2011	Flooding was reported around Highway 146.
9/28/2019	Route MM was closed due to water over the roadway.
9/29/2019	US Highway 69 was closed near Bethany due to high water.

NCEI Database, 7/24/2025

Probability of Future Occurrence

The probability of future occurrence of either flash flood or flood is calculated by dividing the number of events by the number of years and multiplying the solution by 100% to determine the probability of that

event occurring in any given year within the planning area.

$$Probability\ of\ Flash\ Flood = \frac{15}{20} = 0.75 = 75\%\ Probability$$

$$Probability\ of\ Flood = \frac{3}{20} = 0.15 = 15\%\ Probability$$

Changing Future Conditions Considerations

According to the 2023 Missouri State Hazard Mitigation Plan, “frequency of floods in Missouri is likely to increase,” and “over the last half century, average annual precipitation in most of the Midwest has increased by 5 to 10 percent.” Missouri has experienced above average precipitation since 1990. It is likely that the frequency and intensity of rainfall events will increase. As the number of these heavy rain events increases, more flooding and pooling water is to be expected.

The expected increases in rainfall frequency and intensity are also likely to put additional stress on natural hydrological systems and community stormwater systems. Heavier snowfalls in the winter will lead to intensified spring flooding, and groundwater levels will remain high.

These changes in climate patterns could potentially lead to the development of compounding events that could interact and cause extreme conditions. Other environmental impacts of flooding could include erosion, surface and groundwater contamination, and reduced water quality.

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 stored in large containers could break loose or puncture as a result of flood activity. Examples are bulk propane tanks. When this happens, the 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. Floodwater 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.

Scour critical bridges were discussed in Section 3.2.2 Critical and Essential Facilities and Infrastructure. Maps of Harrison County with the location of bridges and scour critical bridges can be found in Figures 3.1 and 3.2 of Section 3.2.2.

Potential Losses to Existing Development

The 2023 Missouri Hazard Mitigation Plan used HAZUS data to analyze the county’s vulnerability to

flooding. A summary of the information is shown in the following table.

Table 3.29. HAZUS Estimates of Potential Losses for Harrison County

Data from State Plan	Harrison County
Countywide Building Exposure	$1,058,298,500
Structural Damage	$772,700
Loss Ratio	0.07%
Contents Loss	$425,700
Inventory Loss	$240,000
Total Direct Loss	$1,438,400
Total Income Loss	$30,211,600
Total Direct and Income Loss	31,650,000
# HAZUS UDF Damaged Structures	42
# Substantially Damaged	4
# Displaced People	849
# Shelter Needs	49

Source: 2023 Missouri Hazard Mitigation Plan

Table 3.30. HAZUS Estimates of Potential Loss by Building Type for Harrison County

Residential		Agriculture		Commercial		Education		Government		Industrial	
#	$	#	$	#	$	#	$	#	$	#	$
36	$22,385,310	6	$4,203,090	0	0	0	0	0	0	0	0

Source: *2023 Missouri State Hazard Mitigation Plan*

According to the 2023 Missouri State Hazard Mitigation Plan, the total population affected by flood would be 849 people with a total loss – HAZUS Layer of $26,588,400 for Harrison County, Missouri.

Impact of Previous and Future Development

Any future development in floodplains would increase risk in those areas. For the communities participating in the National Flood Insurance Program, enforcement of the floodplain management regulations will ensure mitigation of future construction in those areas. However, even if structures are mitigated, evacuation may be necessary due to rising waters. In addition, floods that exceed mitigated levels may still cause damage. There is no future development planned in floodplains in Harrison County at this time.

Hazard Summary by Jurisdiction

Vulnerability to flooding varies by jurisdiction as each community has a different layout. However, past locations of flood events indicate that the City of Bethany has experienced numerous floods, both flash and riverine. Unincorporated Harrison County, typically in low-lying areas along creeks and rivers, sees greater frequency of events than other locations in the planning area. Other participating jurisdictions could potentially see flash floods and riverine floods, however these events have typically occurred outside of the city limits.

Problem Statement

Local governments should make a strong effort to improve emergency warning systems to ensure future deaths and injuries do not occur. Local governments should consider making improvements to roads and low water crossings that consistently flood by placing them on a hazard mitigation projects list and actively seek funding to successfully complete the projects.

3.4.2 Dam Failure

Hazard Profile

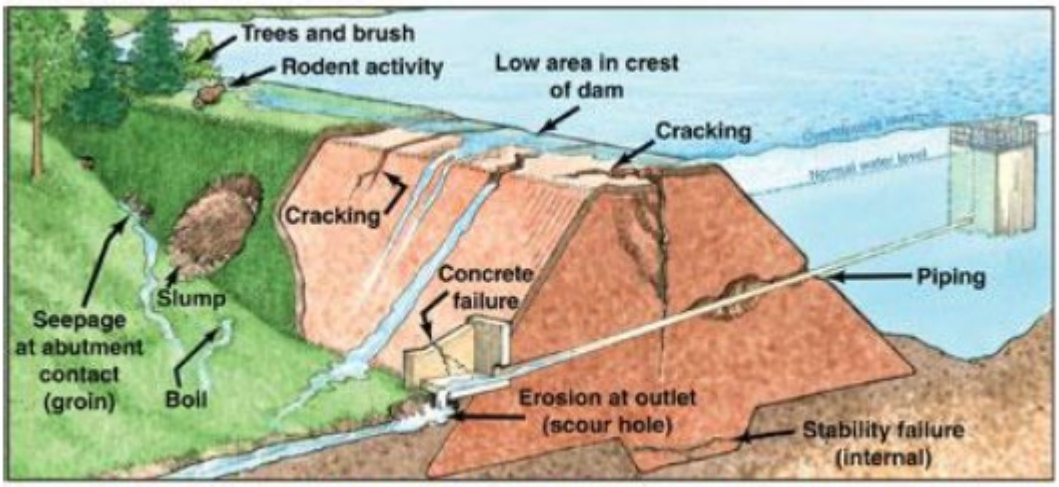
Hazard Description

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.

The four types of failures are often interrelated. For example, erosion, either on the surface or internal, may weaken the dam, which could lead to structural failure. Similarly, a structural failure could shorten the seepage path and lead to a piping failure. Observable defects that provide good evidence of potential dam failures are illustrated in the following figure. While the only occurrence of dam failure in the planning area has been due to inflow flood, the following figure has been included for informational purposes.

Figure 3.14. Causes of Dam Failure



Source: United States Forest Service: https://www.fs.fed.us/eng/pubs/htmlpubs/htm12732805/page02.htm

Table 3.23. 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 every two years.

Class II	The area downstream from the dam that would be affected by inundation contains one (1) to nine (9) permanent dwellings, 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 1 or Class 2 dams. Inspection of these dams must occur once every five years.

Source: Missouri Department of Natural Resources, https://dnr.mo.gov/document-search/frequently-asked-dam-reservoir-questions-pub1351/pub1351

Table 3.24. NID Dam Hazard Classification Definitions

Hazard Class	Definition
High Hazard	Loss of at least one human life is likely if the dam fails.
Significant Hazard	Possible loss of human life and likely significant property or environmental destruction.
Low Hazard	Equal or exceed 25 feet in height and exceed 15 acre-feet storage; Equal or exceed 50-acre feet storage and exceed 6 feet in height; Do not meet the criteria for high or significant hazard.

Source: National Inventory of Dams

Geographic Location

Dams Located Within the Planning Area

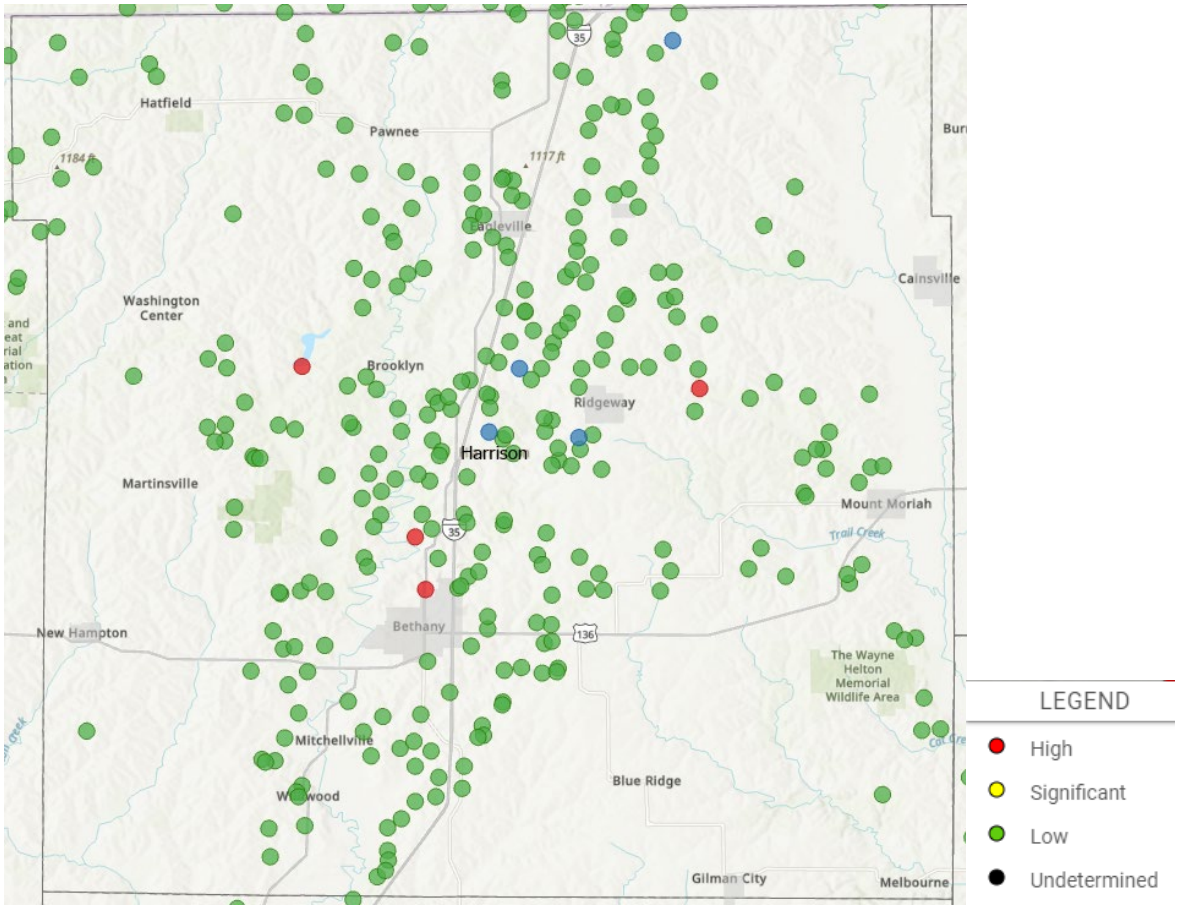
The following tables provide the names, locations, and other pertinent information for all dams within the planning area.

Table 3.25. High Hazard Dams in the Harrison County Planning Area

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
Panther Creek C-2	Yes	47	3963	2/24/2021	PANTHER CREEK	MOUNT MORIAH	6	JACK FINE HARR.S&W CDIST
West Fork of Big Creek C-1 Dam	Yes	49	9994	10/8/2020	LITTLE CREEK	BETHANY	9	unknown
City of Bethany Dam	Yes	60	3850	7/13/2022	TRIBUTARY TO WEST FORK BIG CK	BETHANY	3	CITY OF BETHANY
Bethany City Reservoir Dam	Not required	33	318	7/20/1978	TRIBUTARY TO EAST FORK BIG CK	BETHANY	0	CITY OF BETHANY

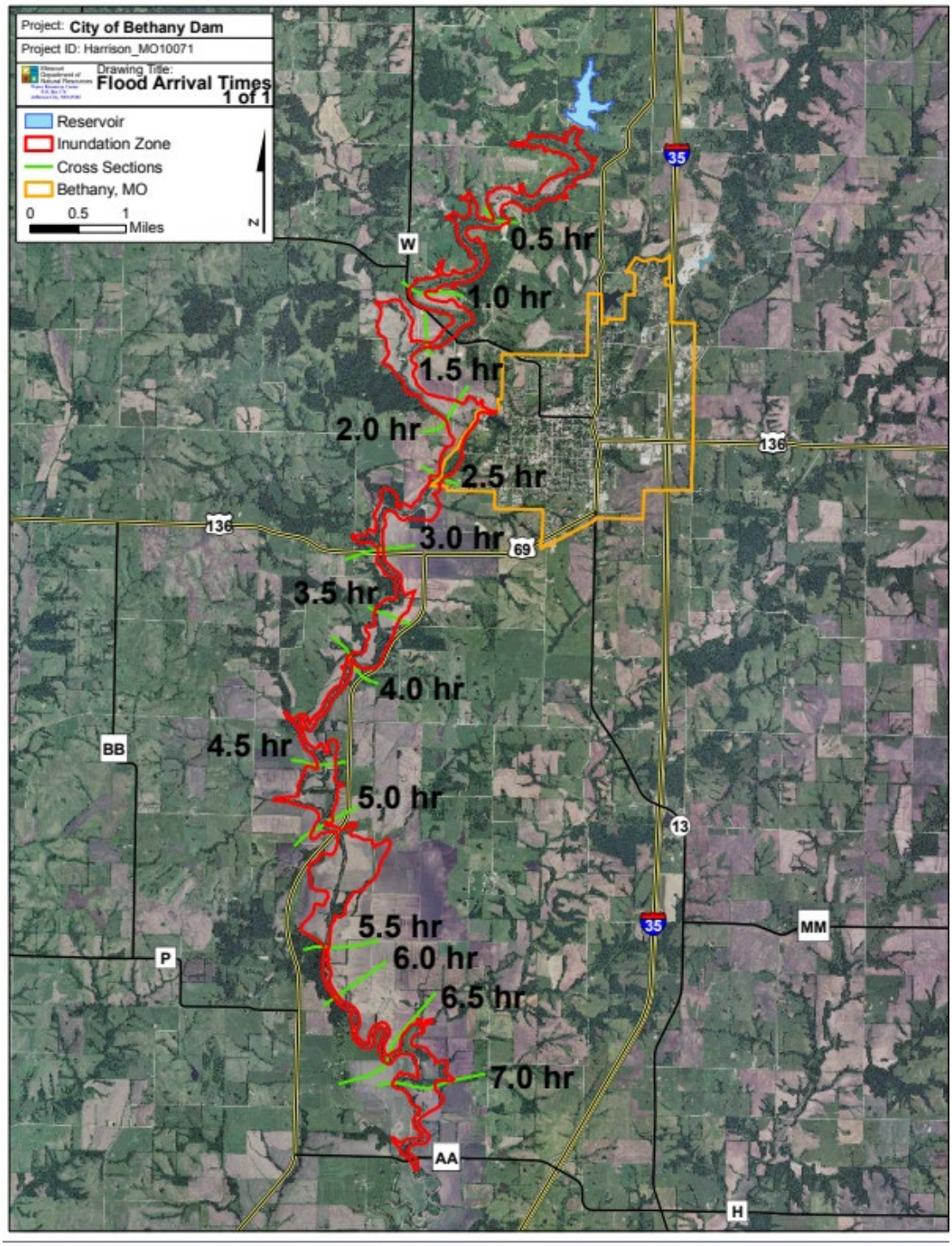
Sources: Missouri Department of Natural Resources GIS, https://gis-modnr.opendata.arcgis.com/pages/dnr-missouri-geological-survey and National Inventory of Dams, https://nid.sec.usace.army.mil/#/. Contact the MoDNR Dam and Reservoir Safety Program at 800-361-4827 to request the inundation maps for your county to show geographic locations at risk, extent of failure and to perform GIS analysis of those assets at risk to dam failure.

Figure 3.15. Dams of Harrison County by Hazard Potential



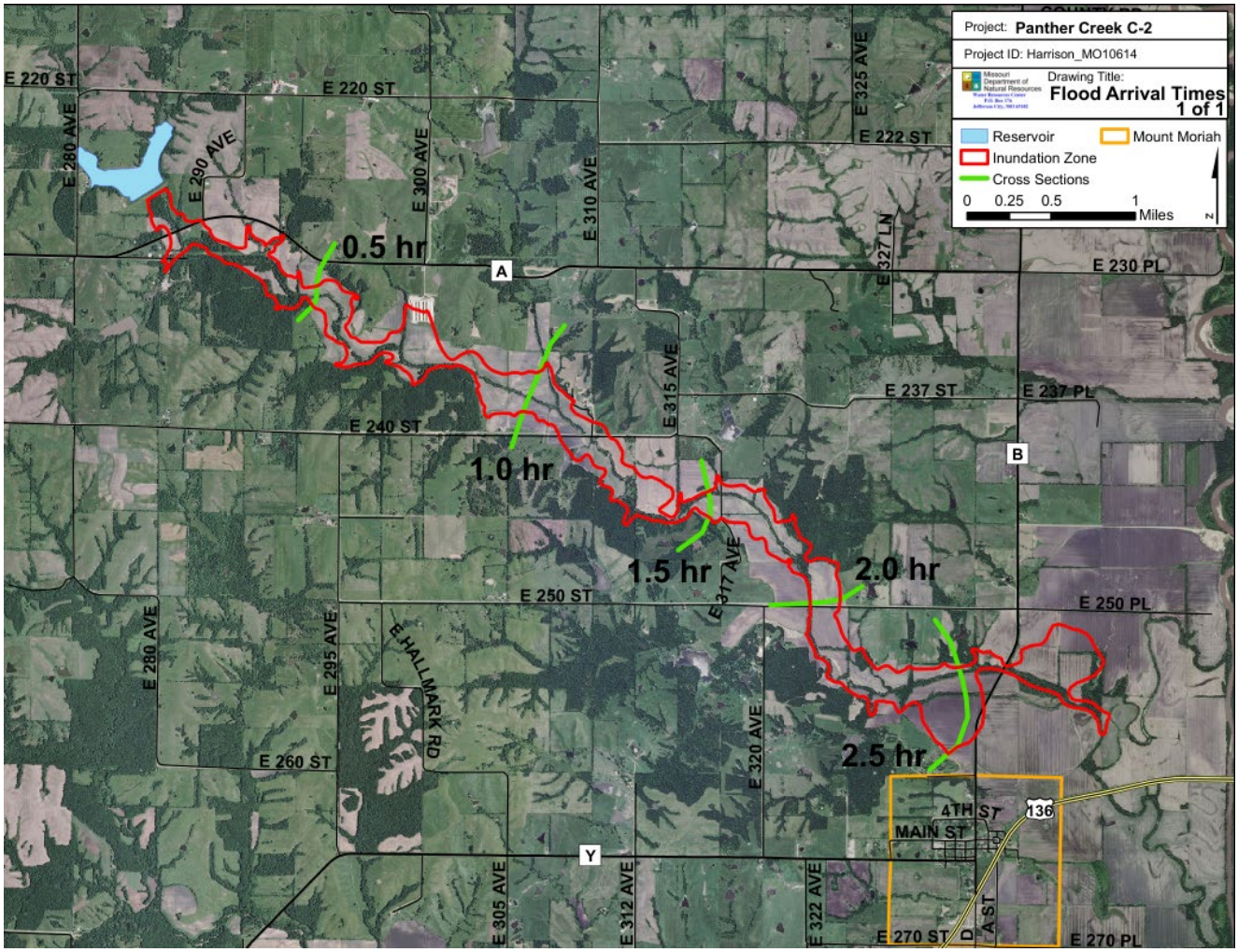
Source: National Inventory of Dams

Figure 3.16. City of Bethany Dam Inundation Map



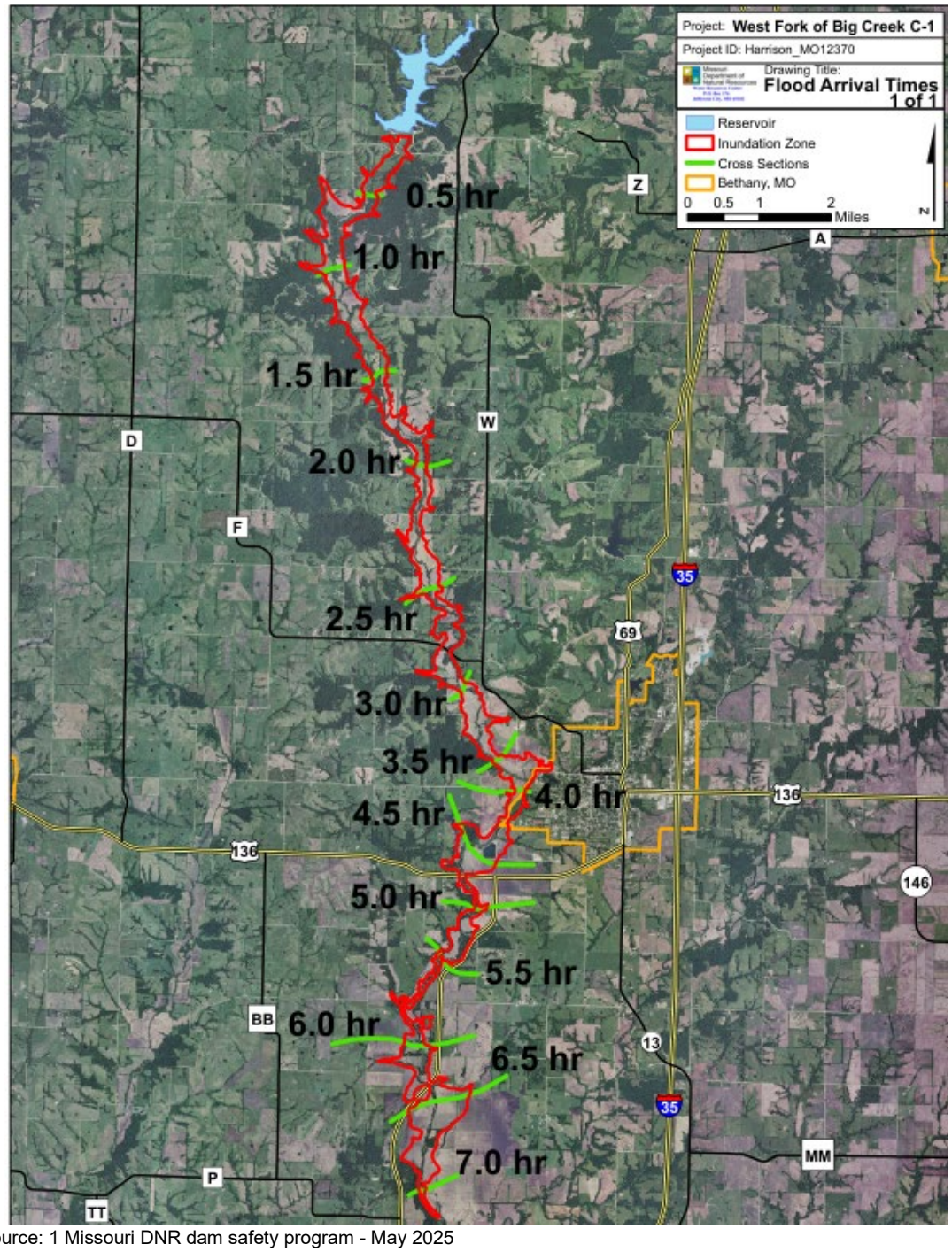
Source: Missouri DNR dam safety program - May 2025

Figure 3.17. Panther Creek C-2 Dam flood map



Source: Missouri DNR dam safety program - May 2025

Figure 3.18. West fork Big Creek C-1 dam flooding map



Source: 1 Missouri DNR dam safety program - May 2025

Upstream Dams Outside the Planning Area

A report from the Iowa dam safety program indicates that there are “several dams upstream from Harrison County that may lead to flooding from a breach”, however, Iowa dam safety did not provide a listing of such dams (Casey Welty, Iowa dam safety, May 2025).

A report from the Missouri DNR dam safety program indicated no regulated dams outside the planning area posed a threat for flooding in Harrison County

Strength/Magnitude/Extent

The strength/magnitude of dam failure would be similar in some cases to flood events (see the flood hazard vulnerability analysis and discussion). The strength/magnitude/extent of dam failure is related to the volume of water behind the dam as well as the potential speed of onset, depth, and velocity. Note that for this reason, dam failures could flood areas outside of mapped flood hazards.

There are 3 High Hazard dams that is regulated by the State; Panther Creek C-2 dam, West Fork of Big Creek C-1 Dam, and the City of Bethany Dam. According to the most recent inspection report from MDNR the dam was inspection reports, the Panther Creek C-2 dam was inspected on 2/24/2021 and was found to be in a Satisfactory condition. The West fork of the big creek dam was inspected last on 10/8/2020 and was found to be in Satisfactory condition. The City of Bethany dam was last inspected on 7/13/2022 and was found to be in Satisfactory condition.

Previous Occurrences

Information from Stanford University’s National Performance of Dams Program shows that only 1 known instance of dam incident has been reported in Harrison County. The incident was a result of an inflow flood.

- ***West fork of Big creek C-1 Dam; Inflow Flood; MO12370***

  On January 3rd, 1993, excessive inflow led to the embankment being overtopped and failing sometime during January 3-4, 1993. The embankment was overtopped and cut a channel through fill from the west end of the dam to the principal spillway outlet. Reservoir status: approximately 3 feet above the diversion pipe inlet invert.

  A temporary earth plug has been placed in the breach area. Repairs will have to be made to the embankment, sand diaphragm around the principal spillway pipe, and stilling basin.

  Construction of the dam ceased in November 1992. The embankment was approximately 20 feet high (maximum). The principal spillway pipe was installed, and the diversion pipe was operational.

Probability of Future Occurrence

There are currently 4 regulated dams in Harrison County. They are state regulated and are inspected once every five years. There are no USACE-regulated dams in the planning area. According to the information from Stanford University’s National Performance of Dams Program, there has been 1 dam incident reported, which resulted in a failure of the dam. This incident happened in 1993 at the West Fork Big Creek C-1 Dam.

It should be considered that within Missouri historical dam failures and incidents include events from all hazard classes and all dams; regulated or not. Failures and incidents for regulated dams that have

higher inspection frequencies should be less probable. The non-regulated dams do not have a regular inspection schedule nor requirement.

If we base the probability upon past events:

$$Probability\ of\ Dam\ Failure = \frac{0}{20} = 0.00$$

With no previous occurrences of dam failure, the probability of such an event occurring is unlikely in the planning area.

However, if we consider the instances of dam incidents:

$$Probability\ of\ Dam\ Incident = \frac{1}{30} = 0.03 = 3\%\ Probability$$

The probability of the planning area experiencing any type of dam incident, if based on past occurrences, would be less than 5% in any given year.

Missouri DNR lists four dams as being regulated in Harrison County. Flooding from the City of Bethany dam (Figure 3.6) could threaten parts of western Bethany. Flooding from the West Fork C-1 Dam may lead to a flood threat in parts of western Bethany.

Changing Future Conditions Considerations

The safety of dams for the future climate can be based on an evaluation of changes in design floods and the freeboard available to accommodate an increase in flood levels. The results from the studies indicate that the design floods with the corresponding outflow floods and flood water levels will increase in the future, and this increase will affect the safety of the dams in the future. Studies concluded that the total hydrological failure probability of a dam will increase in the future climate and that the extent and depth of flood waters will increase by the future dam break scenario.

Vulnerability

Vulnerability Overview

According to the US Army Corps of Engineers (USACE) National Inventory of Dams (NID) there are a total of 303 dams located in the planning area. There are 4 high hazard dams, 4 significant hazard dams, and 295 low hazard dams in Harrison County.
There are currently some structures of both agricultural and residential varieties. The 2023 Missouri State Hazard Mitigation Plan contains the following information about the vulnerability of Harrison County to dam failure.

Table 3.26. Number and Types of Dams in Harrison County

Numbers and Types of Dams in Harrison County															
Count of NID Dams				Count of State Regulated Dams				Count of Federally Regulated Dams				Count of Un-Regulated Dams			
H	S	L	Total	1	2	3	Total	H	S	L	Total	H	S	L	Total
4	4	295	303	1	2	1	4	0	0	0	0	1	4	294	299

Source: 2023 Missouri State Hazard Mitigation Plan

Potential Losses to Existing Development:
(including types and numbers, of buildings, critical facilities, etc.)

Table 3.27. Estimated Number and Values of Structures & Population Vulnerable to Failure of State-Regulated Dams with Available Inundation Areas

Type of Structure	Value of Structures	Number of Structures	Population
Agriculture	$2,373,671	10	0
Residential	$0	0	0
Total	**$2,373,671**	**10**	**0**

Source: 2023 Missouri State Hazard Mitigation Plan

Table 3.28. State Estimates of Potential Loss as a Result of Dam Failure, Both State Regulated and USACE Dams

Location	Potential Damage (in $)
Harrison County	$474,734

Source: 2023 Missouri State Hazard Mitigation Plan

Table 3.29. Estimated Number and Values of Structures & Population Vulnerable to Failure of USACE Dams with Available Inundation Areas

Type of Structure	Value of Structures	Number of Structures	Population
No USACE dam impacts within the planning area			
Total	**0**	**0**	**0**

Source: 2023 Missouri State Hazard Mitigation Plan

Impact of Previous and Future Development

Any growth within Harrison County, downstream from a known dam, would lead to increased risks and potential losses due to an incident. As of June 2025, there were no known plans for large scale development in at risk areas.

Hazard Summary by Jurisdiction

While there are areas of Harrison County that may see flooding from a dam incident the largest part of Harrison County has low risk from a dam incident. Figures below are provided from the Missouri department of natural resources to highlight the areas with greater risk from a dam incident.

Problem Statement

Some entities in Harrison County that own and control dams do not properly inspect and maintain them to ensure the safety of people and property that lie within the inundation area of a dam breach. Jurisdictions and residents should be informed of the proper way to inspect a dam and look for initial problems.

3.4.3 Earthquakes

Hazard Profile

Hazard Description

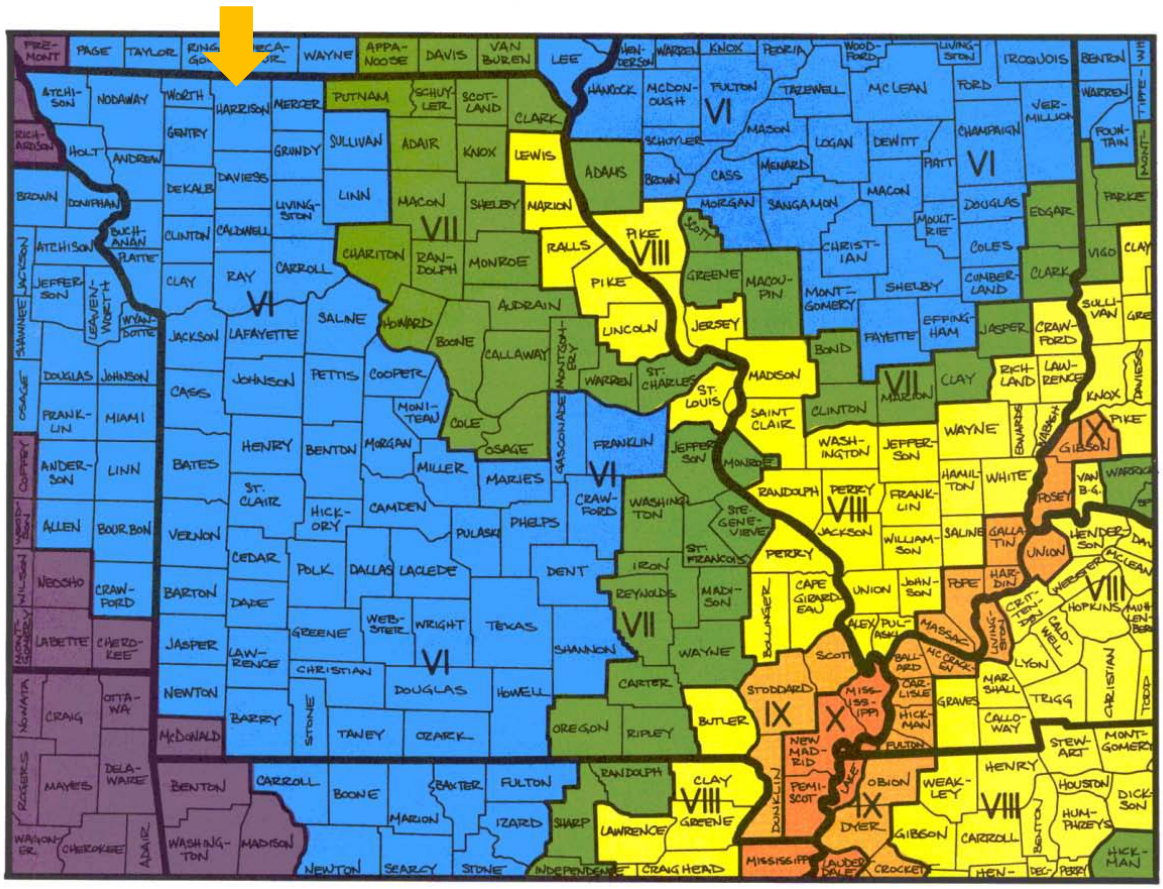
An earthquake is a sudden motion or trembling that is caused by a release of energy accumulated within or along the edge of the earth's tectonic plates. Earthquakes occur primarily along fault zones and tears in the earth's crust. Along these faults and tears in the crust, stresses can build until one 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.

Missouri holds the record for the most devastating earthquake in the history of post-settlement North America. The New Madris 1811-1812 earthquake series included five earthquakes of magnitude 8.0 (Modified Mercalli Intensity Scale) or higher occurring in the period of December 16, 1811, through February 7, 1812. These earthquakes affected an estimated 600,000 square kilometers. Movement was felt as far away as Quebec, and damage was reported in Charleston, South Caroline, and Washington D.C.

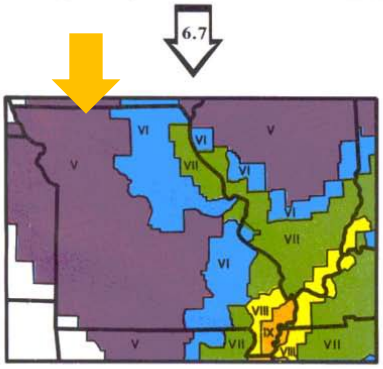
Geographic Location

While the history of the New Madrid fault line and its potential for another major earthquake is well known and much studied, that threat lies far enough away from Harrison County that the effects of such an event would be negligible and would not vary much throughout the planning area. The most likely outcome for Harrison County would be as follows: everyone would feel movement, poorly built buildings would be damaged slightly, considerable quantities of dishes, glassware, and some windows would be broken, people would have trouble walking, pictures would fall off walls, plaster in walls might crack, and furniture could be overturned.

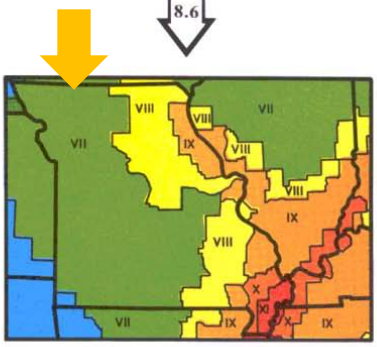
Figure 3.19. Impact Zones for Earthquake Along the New Madrid Fault



This map 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.



This map shows the highest projected Modified Mercalli intensities by county from a potential magnitude – 6.7 earthquake whose epicenter could be anywhere along the length of the New Madrid seismic zone.



This map shows the highest projected Modified Mercalli intensities by county from a potential magnitude – 8.6 earthquake whose epicenter could be anywhere along the length of the New Madrid seismic zone.

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

Figure 3.20. Projected Earthquake Intensities

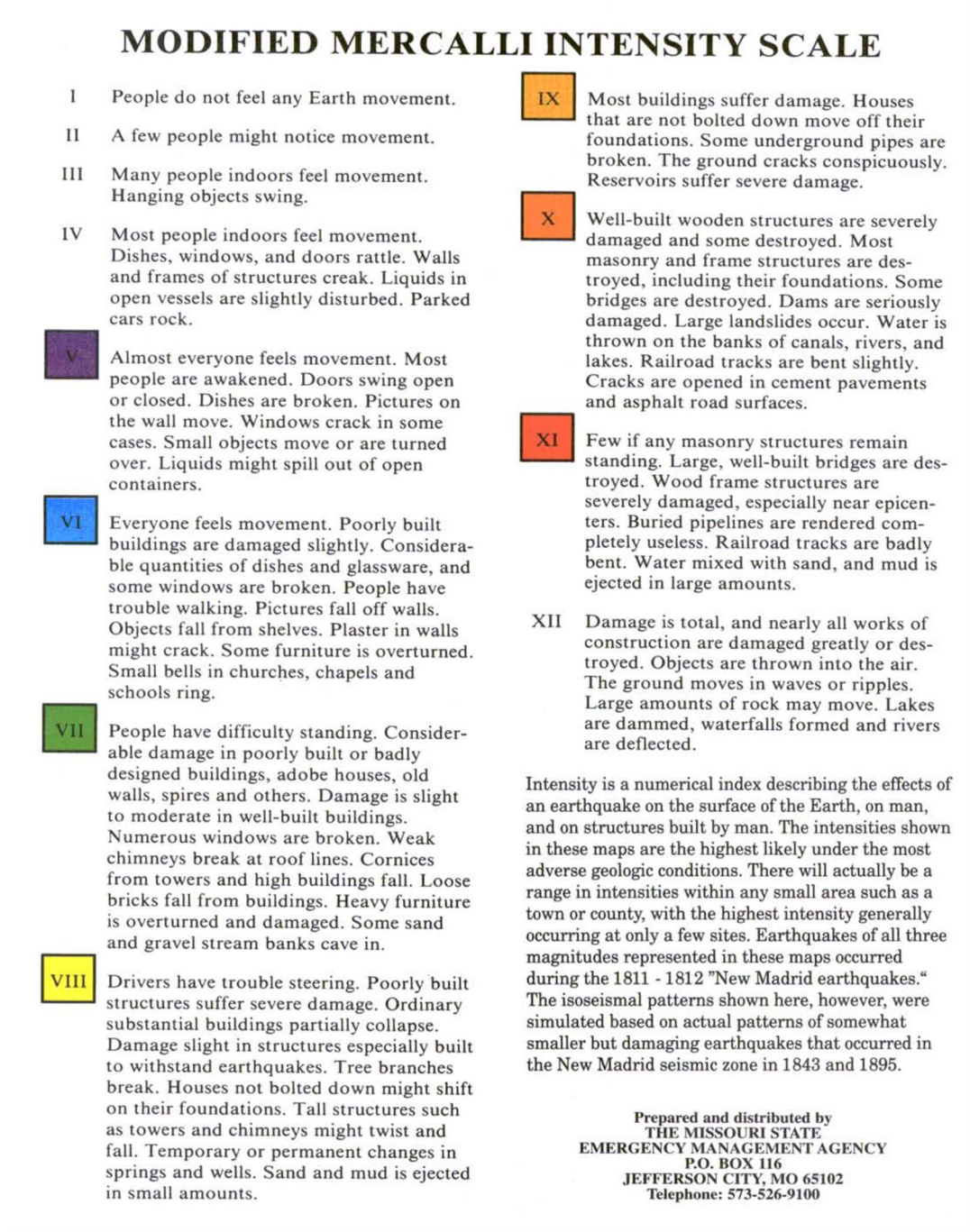
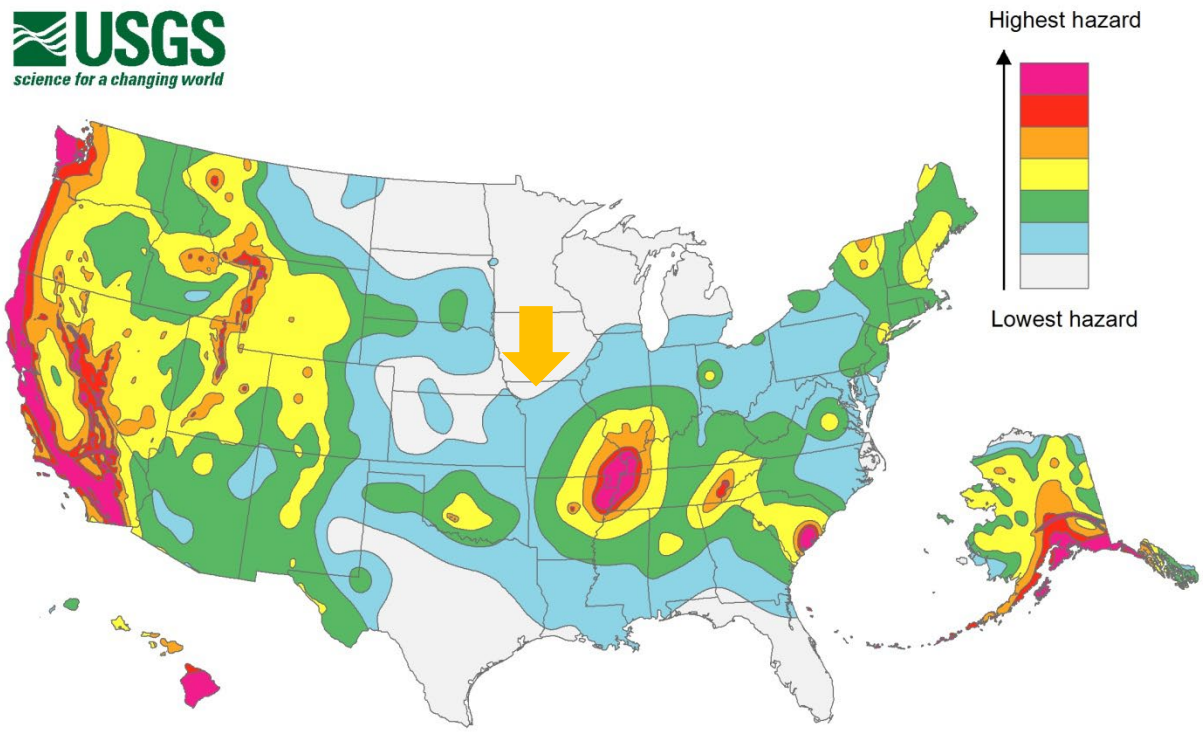


Figure 3.21. United States Seismic Hazard Map



Source: United States Geological Survey at https://www.usgs.gov/programs/earthquake-hazards/hazards

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. 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.

Previous Occurrences

Harrison County has had 0 earthquakes since 1931, and according to homefacts.com, there is a "Very Low" risk level for the county.

Probability of Future Occurrence

Additionally, this same website also predicts the probability of Harrison County having a 5.0 Earthquake within the next 50 years at 0.15%

2% Probability of Exceedance

The State Hazard Mitigation Plan ran a scenario, based on an event with a 2% probability of exceedance in 50 years, in order to determine the worst-case scenario. This scenario was equivalent to the 2,500-year earthquake scenario in HAZUS-MH. This methodology is based on the probabilistic seismic hazard shaking grids that were developed by the US Geological Survey (USGS) for the National Seismic Hazard Maps that are included with HAZUS-MH. The USGS maps provide estimates of peak ground acceleration and spectral acceleration at periods of 0.3 seconds and 0.1 seconds, respectively, which have a 2% probability of exceedance in the next 50 years. The most severe shaking is around the New Madrid Fault in Missouri. The following figure represents the potential for damage in areas with soils potentially susceptible to liquefaction.

Figure 3.22. HAZUS-MH Earthquake 2% Probability of Exceedance in 50 years – Ground Shaking and Liquefaction Potential

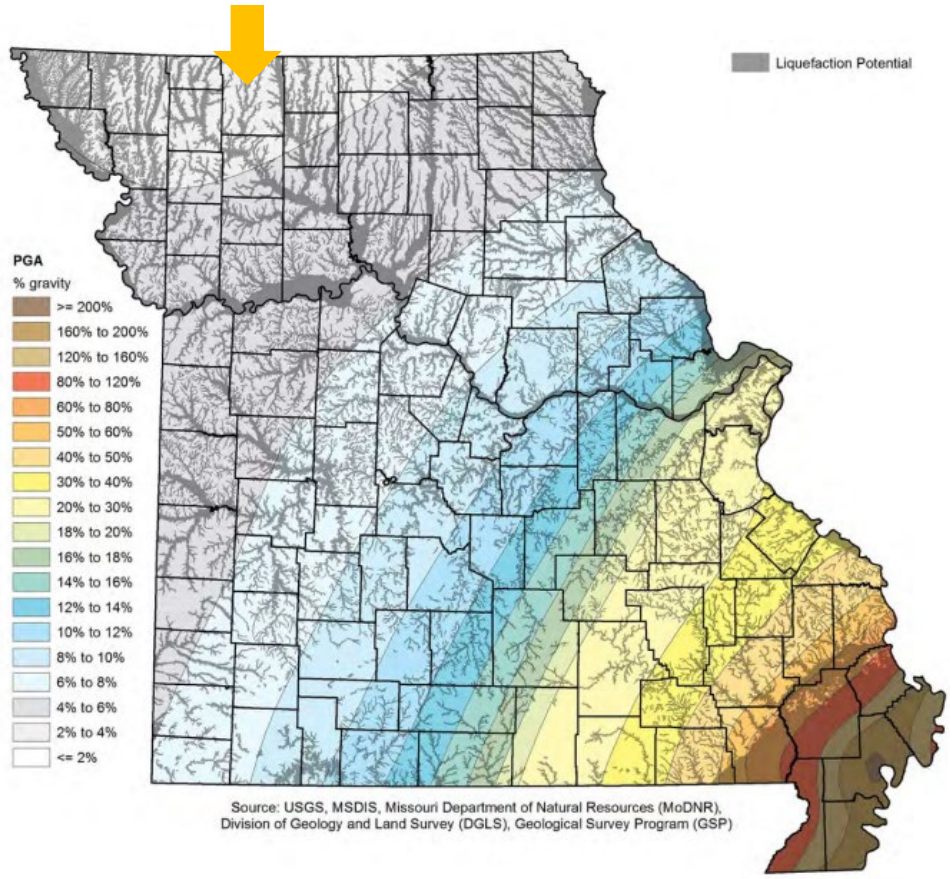


Table 3.30. HAZUS-MH Earthquake Loss Estimation 2% Probability of Exceedance in 50-years Scenario Direct Economic Losses Results for Harrison County (All values in thousands $)

County	Cost Structural Damage	Cost Non-structural Damage	Cost Contents Damage	Inventory Loss	Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	Total Loss
Harrison	$813	$1,479	$378	$7	$520	$167	$224	$209	$3,797

Source 2023 Missouri State Hazard Mitigation Plan

Changing Future Conditions Considerations

According to the 2023 Missouri State Hazard Mitigation plan, scientists are beginning to believe that 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

The 2023 Missouri State Hazard Mitigation Plan provided an earthquake loss estimation for each county. The annualized loss scenario from the 2023 State Hazard Mitigation Plan is provided in the following table.

Table 3.31. HAZUS Earthquake Loss Estimation: Annualized Loss Scenario for Harrison County

Total Losses (in $ Thousands)	Loss Per Capita (in $ Thousands)	Annualized Loss Ratio (In $ per Million)
$4	$0.0004	$4

Source: 2023 Missouri State Hazard Mitigation Plan

Potential Losses to Existing Development

The 2023 Missouri State Hazard Mitigation Plan lists the estimated losses that would be suffered in Harrison County with an earthquake event. The following figure and table summarize this information.

Table 3.32. Earthquake Coverage in Harrison County, Missouri

Earthquake Exposures	Homeowners, Farm, Mobile Home Exposures	% With Earthquake Endorsement	Average Premium, All Earthquake	Average Premium, $110k-$140k Coverage
42	1,770	2.4%	$86	$61

Source: 2023 Missouri State Hazard Mitigation Plan

Table 3.33. FEMA National Risk Index Loss Estimation: Annualized Loss Scenario for Harrison County

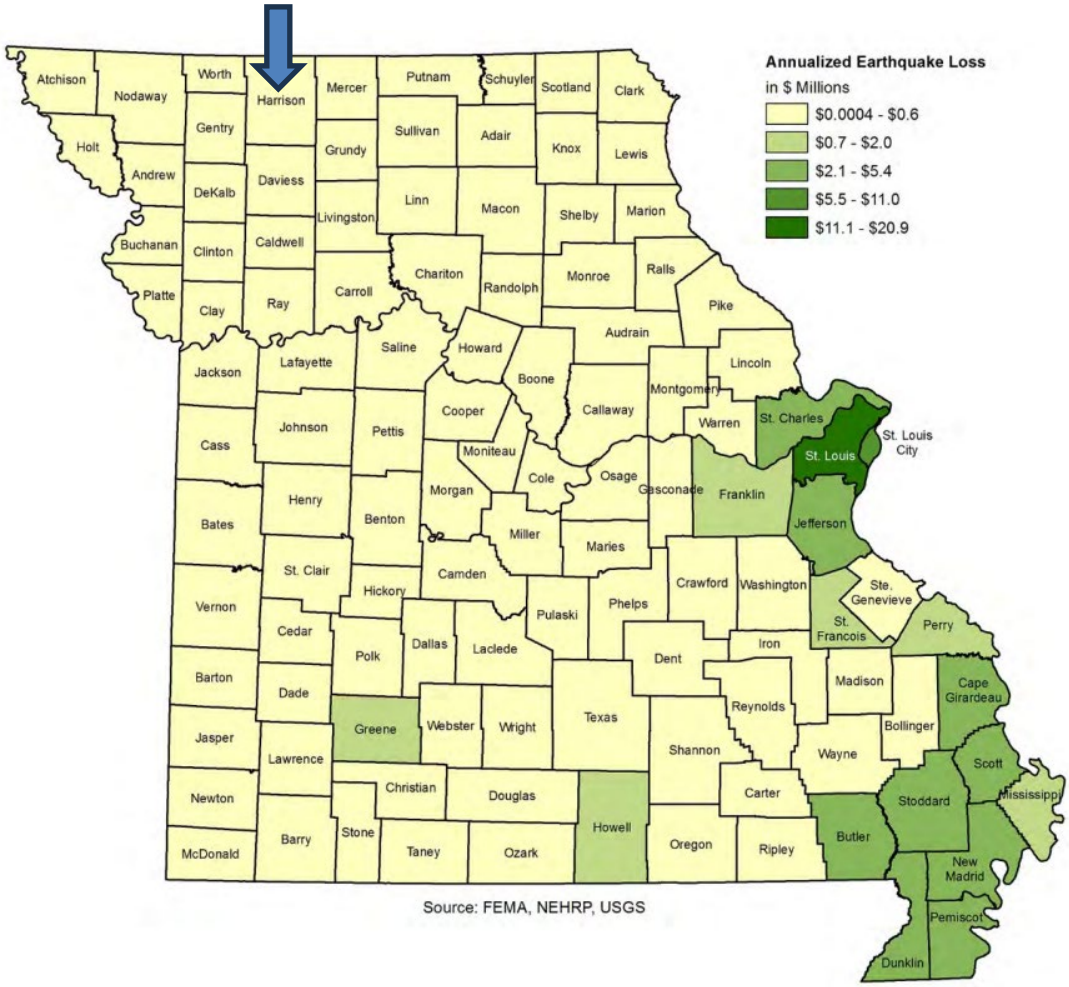
Annualized Frequency	Expected Annual Loss Buildings (in $ Thousands)	Expected Annual Loss- Fatalities	Expected Annual Loss- Population Equivalence	Expected Annual Loss- Total	Expected Annual Loss Rating
0.00022	$4	0.00002	$187	$3,829	Very Low

Source: 2023 Missouri State Hazard Mitigation Plan

The Hazus building inventory counts are based on the 2020 census data and primarily 2022 economic values. Population counts are 2019 estimates from the U.S. Census Bureau.

Figure 3.23. HAZUS-MH Earthquake Loss Estimation: Annualized Loss Scenario-Direct

Economic Losses to Buildings



Source: 2023 Missouri State Hazard Mitigation Plan

Impact of Previous and Future Development

Any future development in Harrison County is not expected to increase the risk other than contributing to the overall exposure of what could become damaged in the event of an earthquake event.

Hazard Summary by Jurisdiction

The intensity of an earthquake is not likely to vary greatly throughout the planning area, and the risk will be the same throughout the county. However, damages could differ if there are structural variations in the planning area-built environment. The impact of an earthquake is likely to be higher on homes built before 1939 and on mobile homes. The following table lists the percentage of homes built prior to 1939 in the planning area as well as percentage of mobile homes.

Table 3.34. Percentage of Homes Built Prior to 1939 and Percentage of Mobile Homes

Jurisdiction	Mobile Homes	% Mobile Homes	Homes Built before 1939	% Homes Built Before 1939
Harrison County	237	7.7%	654	21.3%
City of Bethany	15	1.3%	143	12.0%
Village of Blythedale	22	19.3%	31	27.2%
City of Cainsville	8	7.8%	57	55.3%
Village of Eagleville	7	5.6%	21	16.9%
Gilman City	14	10.2%	45	32.8%
Village of Mt. Moriah	4	7.5%	22	41.5%
City of New Hampton	16	12.4%	72	55.8%
City of Ridgeway	14	9.5%	62	42.2%

Source: U.S. Census Bureau, Physical Housing Characteristics for Occupied Housing Units (S2501)

Problem Statement

Although Harrison County is not located in an area that will likely see catastrophic damage from an earthquake, the county could be impacted by the loss of communications, transportation, the disruption of roads, rail and pipelines, water transportation, and the area will see a significant amount of refugees fleeing from Southern Missouri if a quake hits that area. Education is minimal for earthquakes due to the low likelihood of impact. An emergency plan for earthquakes should be made available to all residents and state what would happen in the event of an earthquake with details for communication and transportation. Owners of buildings and homes need to be aware of the plan in case damage is sustained to their property. Residents should be made aware of where the generators and emergency buildings are located. Utilization of social media and texting needs to be encouraged.

3.4.4 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.

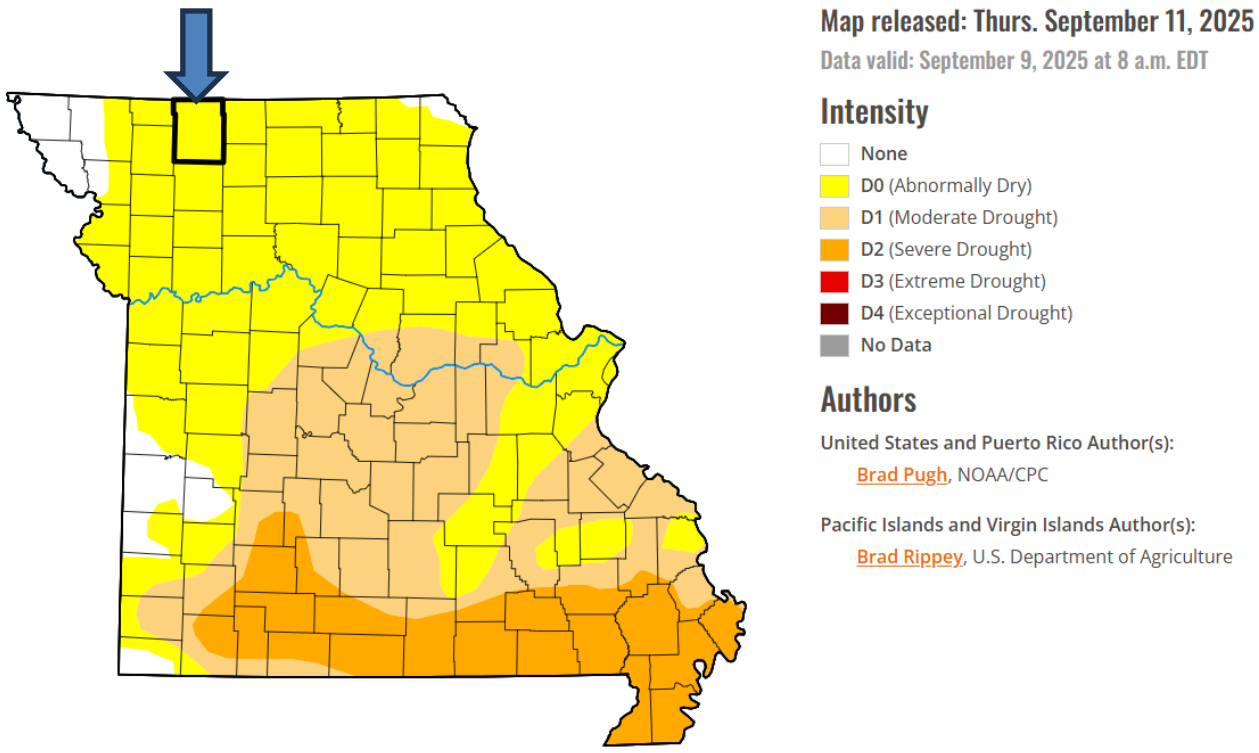
- Agricultural drought focus is on soil moisture deficiencies, differences between actual and potential evaporation, reduced ground water or reservoir levels, etc. Plant demand for water depends on prevailing weather conditions, biological characteristics of the specific plant, its stage of growth, and the physical and biological properties of the soil.

- Socioeconomic drought refers to when physical water shortage begins to affect people.

Geographic Location

Because of the broad scope of drought, all of Harrison County, with the exception of the school districts, is susceptible to this hazard. Agricultural land is extremely vulnerable to drought impacts. According to the most recent census of agriculture 77.8% of Harrison County is made up of farmland, making the impacts of drought one that is acutely felt by residents of Harrison County.

Figure 3.24. U.S. Drought Monitor Map of Missouri on September 11, 2025



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

Strength/Magnitude/Extent

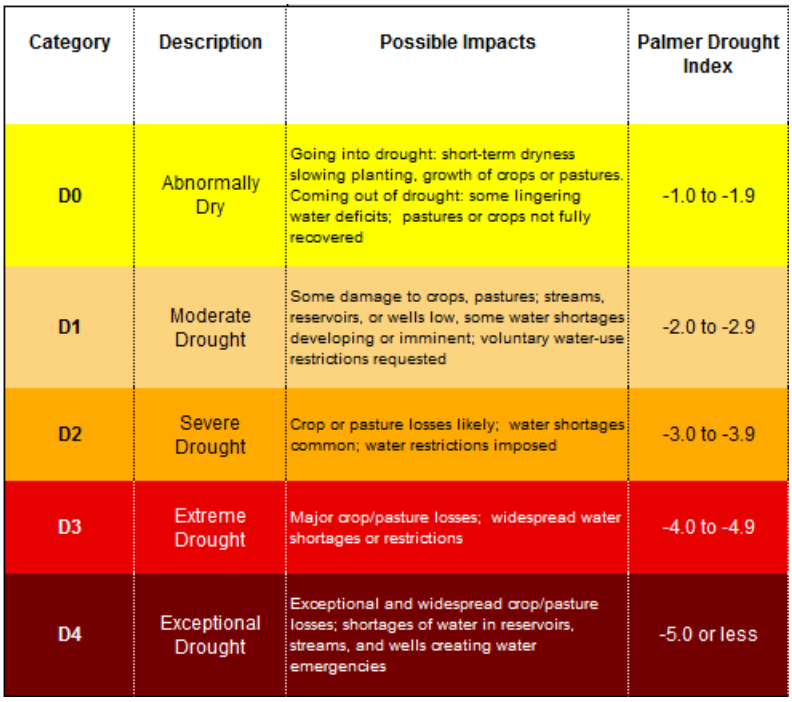
The Palmer Drought Indices measure dryness based on recent precipitation and temperature. The indices are based on a "supply-and-demand model" of soil moisture. Calculation of supply is relatively straightforward, using temperature and the amount of moisture in the soil. However, demand is more complicated 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.

Please see the following figure which provides further information about the different classifications of drought.

Figure 3.25. Drought Severity Classification



Category	Description	Possible Impacts	Palmer Drought Index
D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered	-1.0 to -1.9
D1	Moderate Drought	Some damage to crops, pastures; streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested	-2.0 to -2.9
D2	Severe Drought	Crop or pasture losses likely; water shortages common; water restrictions imposed	-3.0 to -3.9
D3	Extreme Drought	Major crop/pasture losses; widespread water shortages or restrictions	-4.0 to -4.9
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies	-5.0 or less

Previous Occurrences

According to the NCEI database, Harrison County has experienced drought conditions on numerous occasions. The following information provides the date the individual drought conditions were declared and a narrative about the event.

Table 3.35. NCEI Record of Previous Occurrences of Drought in Harrison County 7-2005 – 7-2025

Begin Date	Episode Narrative
7/1/2012	Dry conditions, which started in the spring, intensified during the month of July. Drought conditions expanded across Missouri, with D2 conditions at the beginning of the month, increasing to D3 conditions by the end of the month. Most locations by the end of the month had yearly rainfall deficits of 10 to 15 inches.
8/1/2012	Dry conditions, which started in the spring, intensified during the month of August. Drought D2 and D3 conditions at the beginning of the month increased to D3 and D4 conditions by the end of the month. Most locations by the end month continued yearly rainfall deficits in the 10-to-15-inch range.
9/1/2012	The remnants of Hurricane Isaac brought some much-needed relief to drought conditions across the area, on the 1st of September. This helped improve drought conditions from D4 and D3 to D3 and D2. Rainfall totals with the remnants of Isaac, ranged from around one inch near the Iowa border, to around 7 inches in the Kansas City Metropolitan area.
10/1/2012	The drought continued across west central and northwest Missouri through the month of October, with slight improvement noted, especially across north central and central portions of the state. Rainfall deficits for the year were in the 10-to-15-inch range.
11/1/2012	The drought continued across the area during the month of November. Slight improvement was noted, with D1 to D2 conditions prevailing. Rainfall deficits were generally in the 10 to 16 inch range for the year.

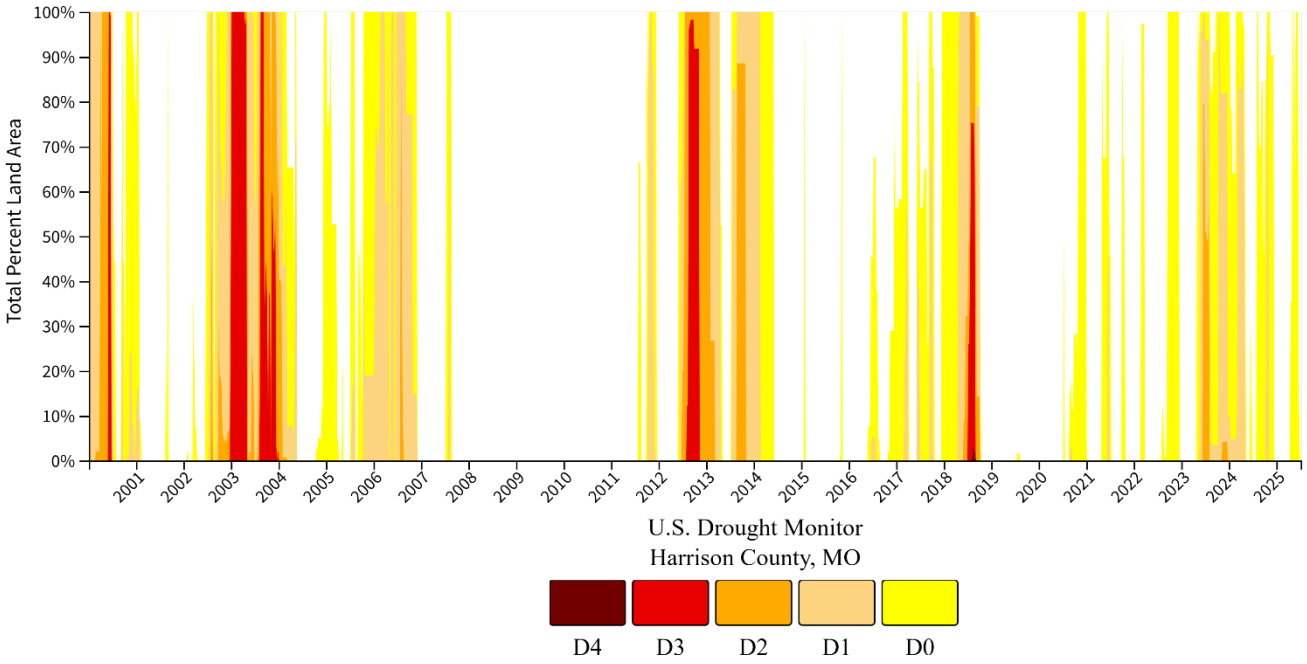
12/1/2012	Slight improvements in the drought conditions were observed across northwest and west central Missouri. However, D1 to D2 conditions, moderate to severe drought conditions, still prevailed across the area.
1/1/2013	There have been several storm systems that have impacted the region in the last half of January. Most of the precipitation from these systems has fallen along and southeast of a Kansas City to Kirksville line. This has resulted in some improvement to the drought across portions of central to northern and northeastern Missouri. However, western and far northwestern Missouri remain in a severe drought (D2).
2/1/2013	Short-term drought conditions continue to improve over northern Missouri, through the month of February 2013. Recent rains and snowstorms have led to this improvement in the short-term, with retention ponds, streams, and rivers, beginning to return to normal or near normal levels. Long-term impacts continue to be the prevailing source for our drought conditions, but with the magnitude of the recent snow melting and rains, even the long-term impacts have diminished. As a result, a one category improvement to moderate drought (D1) was made, across mostly north central and central Missouri. The rest of the area also improved, but remained in severe drought (D2) conditions.
8/27/2013	A persistent upper-level ridge of high pressure centered over the lower Missouri Valley, in late August, caused D2 drought conditions to redevelop across portions of north central Missouri. Several locations, including Kirksville, reported only a trace of rainfall for the month of August.
9/1/2013	Severe drought D2 conditions persisted across most of northern Missouri during the month of September.
10/1/2013	Severe D2 drought conditions continued in the month of October across north central Missouri.
6/1/2018	Starting at the very end of May and going into June, the US Drought Monitor at the University of Nebraska declared portions of Missouri in a D2 or worse drought. While impacts from this drought would be felt through the summer, it's unclear if any drought impacts were felt through the month of June.
7/1/2018	The anomalously dry period that plagued the region during the summer of 2018 continued into and through July. Most areas were about 2 inches short of normal precipitation for the month of July. Most of northern Missouri, north of the Missouri River, came up between 4 and 5 inches short of normal. This combined with the dry June has caused the drought across the region to worsen.
8/1/2018	Precipitation picked up during August, especially in some of the hardest hit drought areas, but in a lot of cases the damage had already been done, and while the rain did pick back up the ground soil was so parched that it made hardly a dent in the drought across northern Missouri.
9/1/2018	While much of the area saw some relief from the drought, many counties remained in D2-D4 status through the month of September. While the full scope of drought impacts is unknown, many farmers took losses on their hay and corn, opting to bale it for livestock or knock it down.
10/1/2018	After a very dry summer, exceptional drought (D4) conditions were experienced area-wide, resulting in heavy losses for local farmers. Things changed in October when widespread heavy rain effectively ended that drought. Widespread 6 to 9 inches of rain fell, with some locations receiving over a foot of rain over the 4-day stretch from October 6 through October 9. By October 9th, the drought was effectively ended by the UNL drought monitor.
6/20/2023	After 2 months of relatively dry conditions portions of Missouri were brought into severe drought conditions. According to the Advanced Hydrologic Precipitation Service page there was a deficit of 2-5 inches across May and June which led to the declaration and maintenance of severe drought.

7/1/2023	After another month of below normal precipitation the severe drought across eastern Kansas persisted through the month of July.
8/1/2023	Several counties in Missouri began August within severe (D2) to extreme (D3) drought but improved to D1 or better by early to mid August thanks to well targeted rains.

Source: NCEI Storm Data Base

The following figure is a graph from the US Drought Monitor depicting the historic drought conditions in Harrison County. It shows the total percent of land area that has been affected during drought from 2000 to 2025.

Figure 3.26. Percent of Harrison County in Drought 2000-2025



Source: US Drought Monitor; www.droughtmonitor.unl.edu

Probability of Future Occurrence

To determine the frequency of previous droughts in Harrison County the data was taken from droughtmonitor.unl.edu. A search was conducted on the frequency of drought and the drought classifications for the time period of 1/4/2000 through 7/8/2025. This time frame encompasses a total of 306 months, and this figure was used in the probability calculations. The following table provides a breakdown of the information that was gathered for Harrison County.

Table 3.36. Harrison County and Weeks Spent by Drought Classification 2000-2025

Harrison County	D0	D1	D2	D3	D4
Weeks at this Designation	620	375	171	63	3
Months at this Designation	155	93.75	42.75	15.75	0.75

Source: US Drought Monitor

The probability of Harrison County experiencing drought, by severity, is calculated by dividing the number of months in drought at that designation by the total number of months and multiplied by 100 for the average percentage probability of drought in the planning area in any given month.

$$Probability\ of\ D0\ Drought = \frac{155}{306} = .507 = 50.7\%\ probability$$

$$Probability\ of\ D1\ Drought = \frac{93.75}{306} = .306 = 30.6\%\ probability$$

$$Probability\ of\ D2\ Drought = \frac{42.75}{306} = .14 = 14\%\ probability$$

$$Probability\ of\ D3\ Drought = \frac{15.75}{306} = .051 = 5.1\%\ probability$$

$$Probability\ of\ D4\ Drought = \frac{0.75}{306} = .002 = .2\%\ probability$$

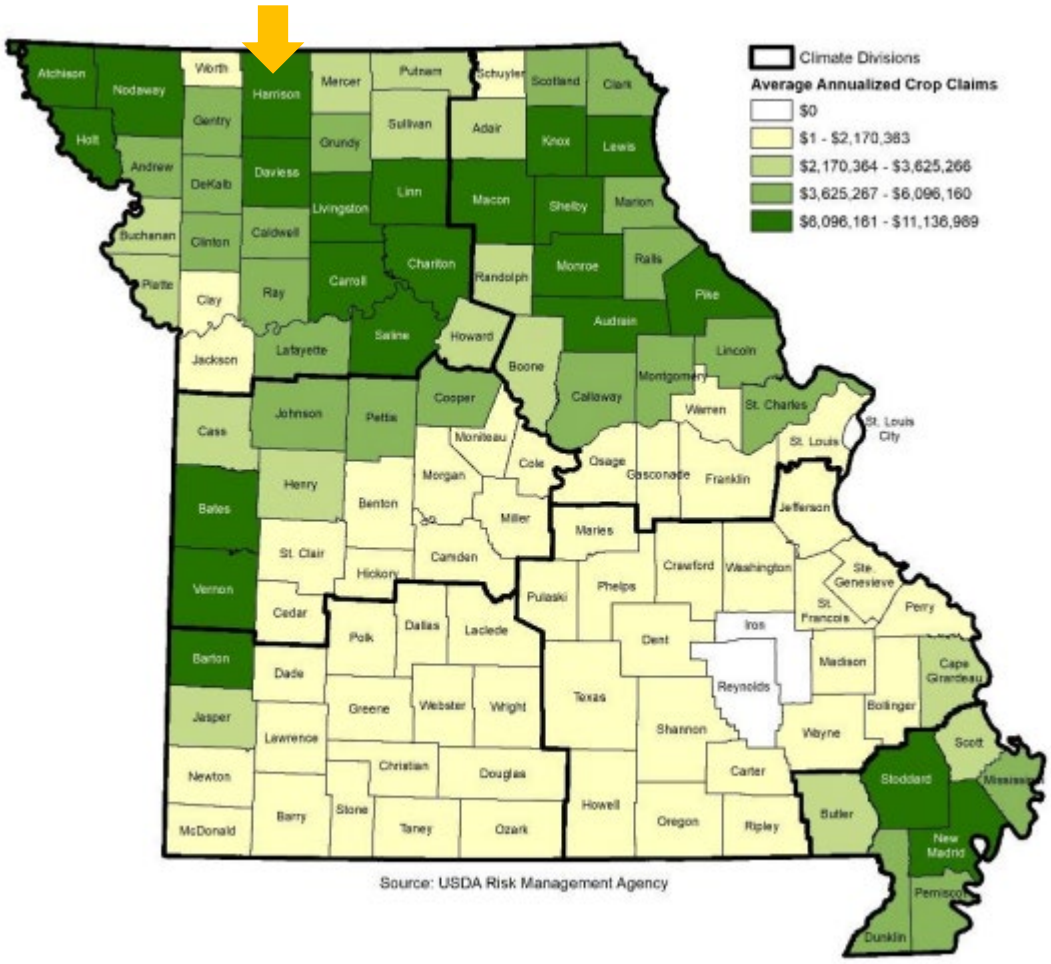
While the severity of the drought will vary, Harrison County is likely to experience drought and should take steps to lessen the severity of the occurrence with measures intended to conserve water usage.

Vulnerability

Vulnerability Overview

The following table contains the data for crop loss claims due to drought that have been paid in Harrison County from 2013 to 2021.

Figure 3.27. Annualized Drought Crop Insurance Claims Paid 2013-2021



Source: 2023 Missouri State Hazard Mitigation Plan

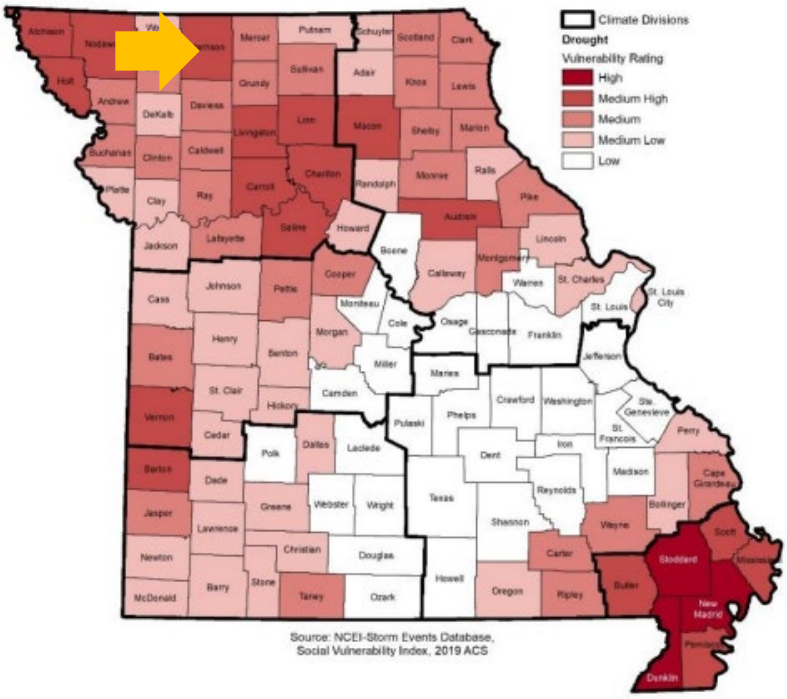
Table 3.37. Crop Loss Data for Harrison County 2014-2025

Year	Crop Name	Cause of Loss	Insurance Paid ($)
2014	Corn	Drought	$17,734.00
	Soybeans		$11,410.10
	Wheat		$1,873.00
2015	No Claims		
2016	Wheat	Drought	$10,191.00
	Corn		$25,416.00
	Soybeans		$615.50
2017	Corn	Drought	$114,721
	Soybeans		$468,435
2018	Corn	Drought	$5,509,908.30
	Soybeans		$4,043,623.95
2019	Corn	Drought	$9,473.50
2020	Corn	Drought	$20,849.50
	Soybeans		$318,090
2021	Oats	Drought	$165
	Corn		$146,407.60
	Soybeans		$252,126.30
2022	Corn	Drought	$177,911

	Soybeans		$703,441.10
2023	Wheat	Drought	$9,585.60
	Oats		$3,280
	Corn		$9,162
	Soybeans		$34,546
2024	Corn	Drought	$135,108.50
	Grain Sorghum		$4,736
	Soybeans		$226,833
Total			**$12,224,625.85**

Source: USDA.gov/data/cause.html

Figure 3.28. Drought Vulnerability in Missouri by County



Source: 2023 Missouri State Hazard Mitigation Plan

As per the previous Figure, Harrison County in Missouri has a Medium-High Drought Vulnerability Rating per the 2023 State Hazard Mitigation Plan. The method used to determine vulnerability to drought across Missouri was a statistical analysis of data from several sources: USDA Risk Management Agency's insured crop losses as a result of drought (2021-2022), USDA crop exposure by county, the calculated Social Vulnerability Index for Missouri Counties from the Hazards and Vulnerability Research Institute in the Department of Geography at the University of South Carolins, and storm events data (1996-December 31, 2021) and probability of severe drought based on historic Palmer Drought Severity Index. The USDA crop exposure by county is from the 2017 Agricultural Census and assumes that the larger the exposure, the greater potential for loss and impact on the local economy.

From the statistical data collected, four factors were considered in determining overall vulnerability to drought as follows: social vulnerability, crop exposure ratio, annualized crop claims paid, and likelihood of occurrence. Based on natural breaks in the statistical data, a rating value of 1 through 5 was assigned to each factor. Once the ranges were determined and applied to all factors considered in the analysis, the ratings were combined to determine an overall vulnerability rating

for drought. These rating values correspond to the following descriptive terms:

1. Low
2. Medium-low
3. Medium
4. Medium-High
5. High

The following table utilizes these factors in determining the vulnerability rating of Harrison County to drought, according to the 2023 Missouri Hazard Mitigation Plan.

Table 3.38. Vulnerability of Harrison County to Drought

SOVI Index Rating	USDA RMA Total Drought Crop Claims	Average Annualized Crop Claims	USDA Claims Rating	2017 Crop Exposure	Crop Exposure Rating	Likelihood of Severe Drought	Drought Occurrence	Total Rating	Total Rating (text) Drought
4	$72,225,682	$7,222,568	5	$68,651,000	3	0.65	3	15	Medium High

Source: 2023 Missouri State Hazard Mitigation Plan

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.

Although it is difficult to quantify many of the potential losses that may occur due to drought, agriculture losses are direct economic costs that can be easily quantified by examining previous insurance claims in the county. Harrison County's crop exposure is high, with approximately 77.8% of the land occupied by farms. Over the past 11 years, Harrison County has experienced an average of $1,111,329.62 in crop losses annually due to drought conditions.

Impact of Previous and Future Development

Increases in acreage planted with crops would increase the exposure to drought-related agricultural losses. In addition, increases in population impose additional strains on water supply systems to meet the growing demand for treated water, and these strains could prove impactful during times of drought.

Changing Future Conditions Considerations

A new analysis, performed for the Natural Resources Defense Council, examined the effects of climate change on water supply and demand in the contiguous United States. The study found that more than 1,100 counties will face higher risks of water shortages by mid-century as a result of climate change. Two of the principal reasons for the projected water constraints are shifts in precipitation and potential evapotranspiration (PET). Climate models project decreases in precipitation in many regions of the U.S., including areas that may currently be described as experiencing water shortages of some degree.

Hazard Summary by Jurisdiction

Drought has the potential to impact the entire planning area, with the exception of the school districts. However, the ways in which the impacts will be experienced vary. As previously discussed in this section, most of the damage that has been seen historically due to drought affects agriculture. Therefore, the magnitude of the impacts of drought may be greater in rural parts of the county, which have large areas of crops and wildlife. In areas with greater building density, there is more exposure to potential shrinking and expanding soil problems around foundations as a result of drought. If drought conditions are severe and prolonged, water supplies could also be affected.

Problem Statement

Some of the key problems in Harrison County:

- Harrison County and participating jurisdictions have a high level of crop exposure. Possible solutions include encouraging farmers to purchase crop insurance and educating farmers on drought-resistant farming practices.
- Harrison County and participating jurisdiction's water supply could be impacted by severe or prolonged drought. Possible solutions include the development of agreements with neighboring communities for a secondary water source and review of local ordinance/regulation for inclusion of water-use restrictions during periods of drought.

3.4.5 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 3.29** uses both of these 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.

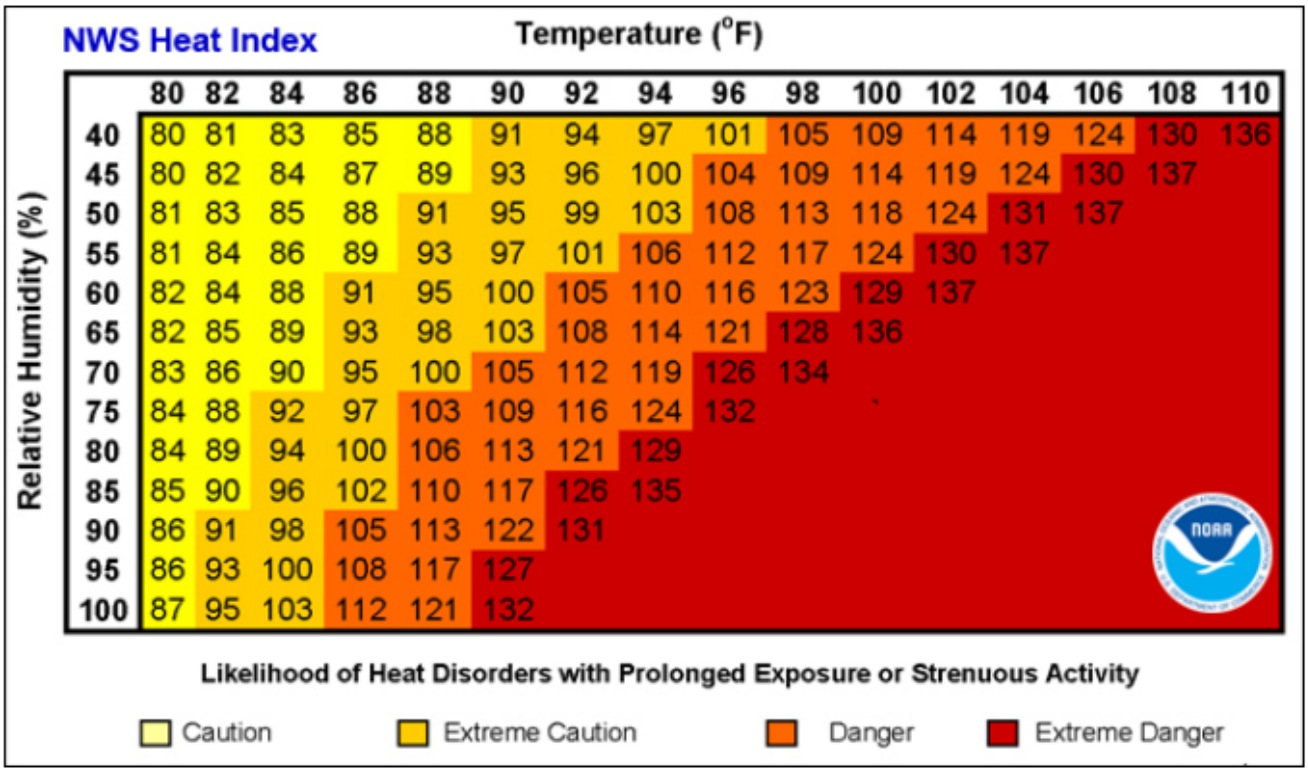
Geographic Location

Extreme temperatures cover large spans of areas and will affect the county in the same way no matter where in the 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 for two or more consecutive days: (1) when the maximum daytime Heat Index is expected to equal or exceed 105 degrees Fahrenheit (°F); and the night time 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 3.29. 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. The figure 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.

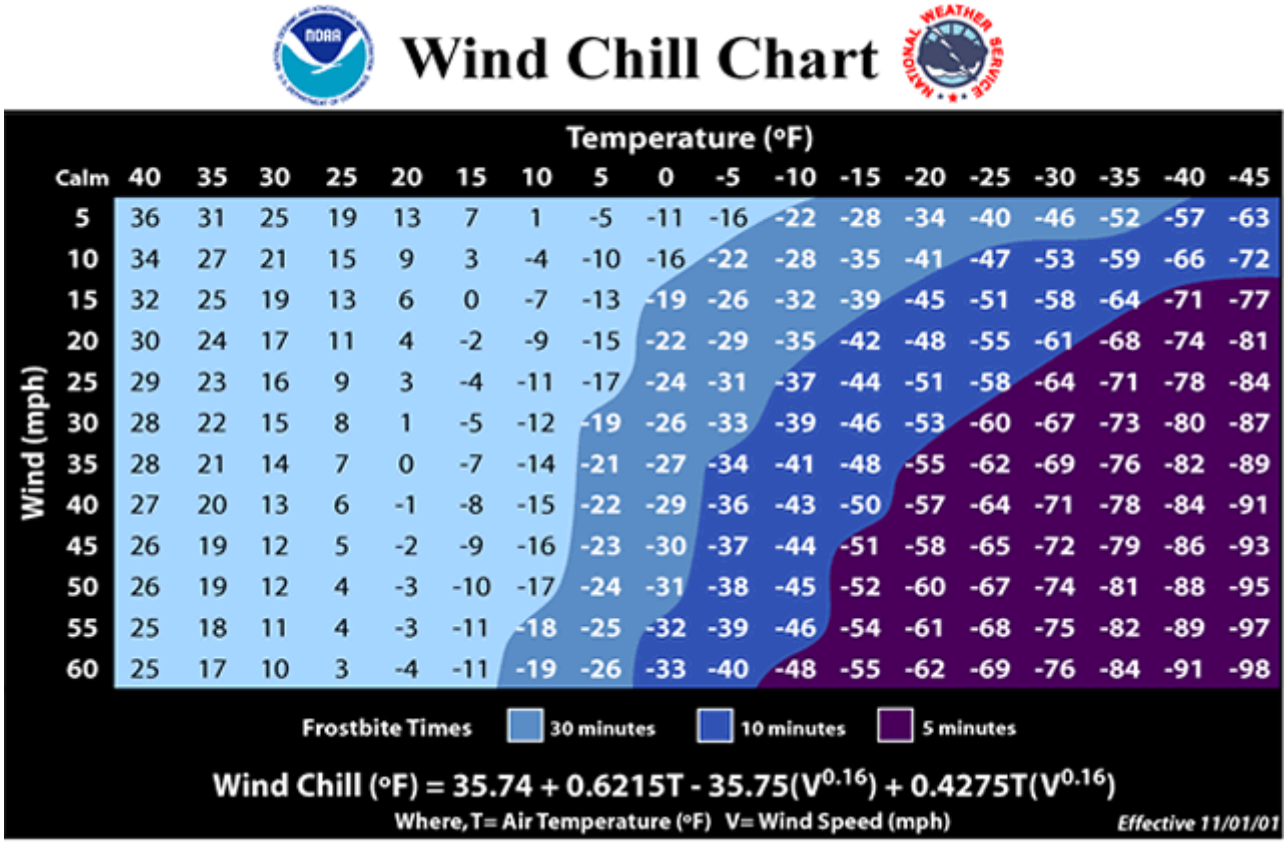
The National Weather Service issues the following wind chill products as conditions warrant across the State of Missouri. NWS local offices in Missouri may collaborate with local partners to determine when an alert should be issued for a local area. The planning area is vulnerable to all of these warnings if the temperature drops low enough.

- Wind Chill Warning: NWS issues a wind chill warning when dangerously cold wind chill values are expected or occurring. If you are in an area with a wind chill warning, avoid going outside during the coldest parts of the day. If you do go outside, dress in layers, cover exposed skin, and make sure at least one other person knows your whereabouts. Update them when you arrive safely at your destination.
- Wind Chill Watch: NWS issues a wind chill watch when dangerously cold wind chill values are possible. As with a warning, adjust your plans to avoid being outside during the coldest parts of the day. Make sure your car has at least a half a tank of gas and update your winter survival kit.
- Wind Chill Advisory: NWS issues a wind chill advisory when seasonably cold wind chill values, but not extremely cold values are expected or occurring. Be sure you and your loved ones dress appropriately and cover exposed skin when venturing outdoors.
- Hard Freeze Warning: NWS issues a hard freeze warning when temperatures are expected to drop below 28°F for an extended period of time, killing most types of commercial crops and

residential plants.

- Freeze Warning: When temperatures are forecasted to go below 32°F for a long period of time, NWS issues a freeze warning. This temperature threshold kills some types of commercial crops and residential plants.
- Freeze Watch: NWS issues a freeze watch when there is a potential for significant, widespread freezing temperatures within the next 24-36 hours. A freeze watch is issued in the autumn until the end of the growing season and in the spring at the start of the growing season.
- Frost Advisory: A frost advisory means areas of frost are expected or occurring, posing a threat to sensitive vegetation.

Figure 3.30. Wind Chill Chart



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

Previous Occurrences

Table 3.39. Excessive heat reports 2004-2024

Year	Reports	Deaths	Injuries
2005	1	0	0
2006	3	0	0
2007	1	0	0
2012	1	0	0
2023	1	0	0

Source: NCEI Storm reports data – June 2025

Table 3.40. Extreme cold reports 2004-2024

Year	Reports	Deaths	Injuries
2014	1	0	0
2021	3	0	0
2022	1	0	0

Source: NCEI Storm reports data – June 2025

2005

7-21-2005 Excessive Heat

Oppressive heat and humidity prevailed across the area from July 21st to July 25th. Afternoon heat indices reached from 105 to 110 degrees. Kansas City International heat index reached 114 degrees on July 22nd and St. Joseph topped out at 113 degrees on July 22nd.

2006

Excessive Heat 7-16-2006 through 7-20-2006

Oppressive heat and humidity combined to produce afternoon and early evening heat indices from 105 to 115 degrees, from July 16th through July 20th. The highest computed heat index reached 121 degrees at Amity Missouri. Three males and one female died of heat related causes in Jackson County.

Excessive Heat 7-29-2006 through 8-1-2006

Oppressive heat and humidity combined to produce heat indices from 105 to 115 degrees, from July 29th through July 31st.

2007

Excessive Heat 8-6-2007

An upper-level ridge of high pressure persisted across the area from August 6th through August 17th. The combination of heat and humidity produced heat index readings in the 105-to-115-degree range.

2012

Excessive Heat 7-18-2012

High temperatures in the 100-to-110-degree range, combined with humidity, produced afternoon and early evening heat indices in the 100-to-110-degree range. Overnight low temperatures were in the 70s to lower 80s.

2014

Extreme Cold 1-6-2014

A polar plunge of arctic air slammed into Kansas, bringing wind chill values to around 30 degrees below zero for the morning of January 6.

2021

Extreme Cold 2-14-2021 through 2-16-2021

In the first night of bitter cold across the area, temperatures dropped well below zero and with winds around 10-20 mph wind chills overnight going into Sunday morning dropped to around 20 to 30 below.

2022

Extreme Cold 12-22-2022 & 12-23-2022

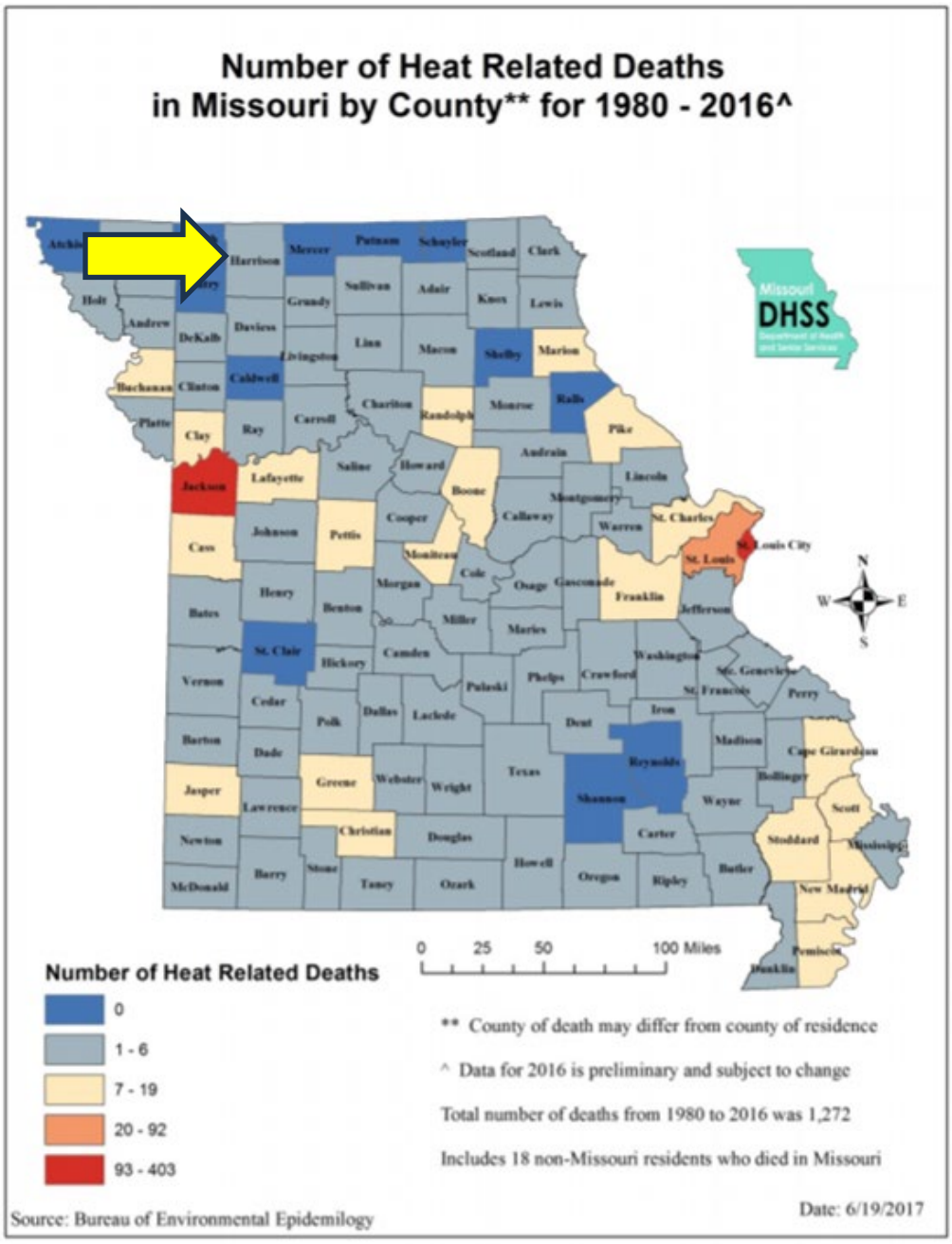
An arctic air mass sent temperatures below zero along with strong winds. Minimum wind chills across the region generally ranged from -30 to -40 degrees between roughly 10 am on 12/22 to noon on 12/23.

2023

Excessive Heat 8-19-2023 through 8-25-2023

Max heat indices during the afternoons of August 19th through August 25th, 2023, primarily ranged from the 110 to 120 degree range.

Figure 3.31. Heat Related Deaths in Missouri 2000-2016



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

Table 3.41. Crop Insurance Claims Paid in Harrison County 2014-2024

Year	Crop Name	Cause of Loss	Insurance Paid ($)
2014	No Claim		$0
2015	No Claim		$0
2016	No Claim		$0
2017	No Claim		$0
2018	Corn	Heat	$5,182.50
2019	No Claim		$0
2020	No Claim		$0
2021	No Claim		$0
2022	Corn	Heat	$33,141.00
2022	Soybeans	Heat	$308,650.12
2023	Wheat	Freeze	$29,717
2024	No Claim		$0
Total			**$376,690.62**

Source: USDA Risk Management Agency http://www.rma.usda.gov/data/cause

Extreme temperatures can cause stress to crops and animals. According to USDA Risk Management Agency, losses to insurable crops during the 10-year time period from 2014 to 2024 were $376,69.62. 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. During the same period, __ deaths were recorded in the planning area, according to NCEI data. The National Weather Service stated that among natural hazards, no other natural disaster—not lightning, hurricanes, tornadoes, floods, or earthquakes—causes more deaths.

Probability of Future Occurrence

$$Probability\ of\ Extreme\ heat = \frac{10}{20} = 0.50 = 50\%\ probability$$

$$Probability\ of\ Extreme\ cold = \frac{5}{20} = 0.25 = 25\%\ probability$$

Changing Future Conditions Considerations

By the end of the century, the temperatures are projected to continue to increase. The best-case scenario, with lower greenhouse gas emissions, the temperatures are expected to exceed historic levels by the middle of the 21st century. If greenhouse gas emissions are not curbed, historically unprecedented warming is projected by the end of the century. Due to the change in climate, it is projected that by the middle of the 21st century, record breaking heat is likely to occur on a regular basis. This will lead to a higher frequency of heat waves.

The impacts of extreme temperatures are experienced more acutely by the elderly and other vulnerable populations. High temperatures are often higher in urban areas, of which Chariton County has none. There is a higher demand for electricity as people try and keep cool. This increased demand adds a strain to electricity providers and could potentially lead to an increase in the number of power outages.
Additionally, air quality and water quality can be adversely affected by an increase in temperatures. Chariton County is mostly agricultural, and the strain placed on crops and livestock could increase along with the temperature.

Vulnerability

Vulnerability Overview

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 the following table lists typical symptoms and health impacts due to exposure to extreme heat. Exposures to extreme cold can result in frostbite and hypothermia. See table under the hazard summary by Jurisdiction for more details

Table 3.42. 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

The National Institute on Aging estimates that more than 49 million Americans over the age of 65 are particularly vulnerable to hypothermia, with isolated elders being most at risk. For an older person, a body temperature of 95° or lower can cause many health problems, such as heart attack, kidney problems, liver damage or worse. (See Table 3.57)

Also at risk are those without shelter, those who are stranded, and those 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.

Extreme heat and extreme cold events are common occurrences in Missouri. The method used to determine vulnerability to extreme temperatures across Missouri was statistical analysis of data from several sources: National Centers for Environmental Information (NCEI) storm events data (1996 to December 31, 2021), total population and percentage of population over 65 data from the U.S. Census (2019), and the calculated Social Vulnerability Index for Missouri counties from the Hazards and Vulnerability Research Institute in the Department of Geography at the University of South Carolina.

From the statistical data collected, four factors were considered in determining overall vulnerability to extreme temperatures as follows: total population, percentage of population over 65, likelihood of

occurrence, and social vulnerability. Based on natural breaks in the statistical data, a rating value of 1 through 5 was assigned to each factor. Once the individual ratings were determined for the above factors, a combined vulnerability rating was computed for extreme heat and extreme cold. These rating values correspond to the following descriptive terms:

1) Low
2) Medium-Low
3) Medium
4) Medium-High
5) High

Table 3.43. Likelihood of Occurrence and Overall Vulnerability Rating for Extreme Temperatures

Heat					Cold				
Total Events	Likelihood of Occurrence	Likelihood Rating	Total Vulnerability	Total Vulnerability Description	Total Events	Likelihood of Occurrence	Likelihood Rating	Total Vulnerability	Total Vulnerability Description
17	0.65	1	10	Medium	7	0.28	2	11	Medium High

Source: 2023 Missouri State Hazard Mitigation Plan

Potential Losses to Existing Development

During extreme heat events structural, road, and electrical infrastructure are vulnerable to damages. Depending upon temperatures and the duration of extreme heat losses will vary.

Extreme cold temperatures can lead to potential losses to existing development. These losses may include power outages, loss of income from closures and disruptions, and risks to real estate such as burst pipes.

Over the past 10 years extreme temperatures have led to $376,690.12 in documented losses, converted to an annualized basis this would yield $37,669.12 in losses. It should be noted that only 4 out of the previous 10 years had any claims.

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. Currently, none of the participating jurisdictions are

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 2010 census 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. The table 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 3.44. Harrison County Population Under Age 5 and Over Age 65, 2023 Census Data

Jurisdiction	Population Under 5	% Population Under 5	Population 65 and over	% Population 65 and over
Harrison County	468	5.7%	1897	23.3%
City of Bethany	145	5.0%	726	24.9%
Village of Blythedale	19	9.0%	54	25.6%
City of Cainsville	24	8.5%	58	20.5%
Village of Eagleville	15	5.5%	59	21.5%
Gilman City	28	8.5%	69	21.0%
Village of Mt. Moriah	2	2.7%	19	25.3%
City of New Hampton	13	5.7%	51	22.4%
City of Ridgeway	23	6.2%	86	23.1%

Source: U.S. Census Bureau, Profile of General Population and Housing Characteristics (DP1)

Problem Statement

The county has a growing population of residents over 65 years, who are at a greater risk for extreme-temperature related illnesses, injuries, and death. Possible solutions include organizing outreach to the vulnerable elderly populations, including establishing and promoting accessible heating or cooling centers in the community and creating a database in coordination with the Health Department to track those individuals at high risk.

3.4.6 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.**4.8).

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 is 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

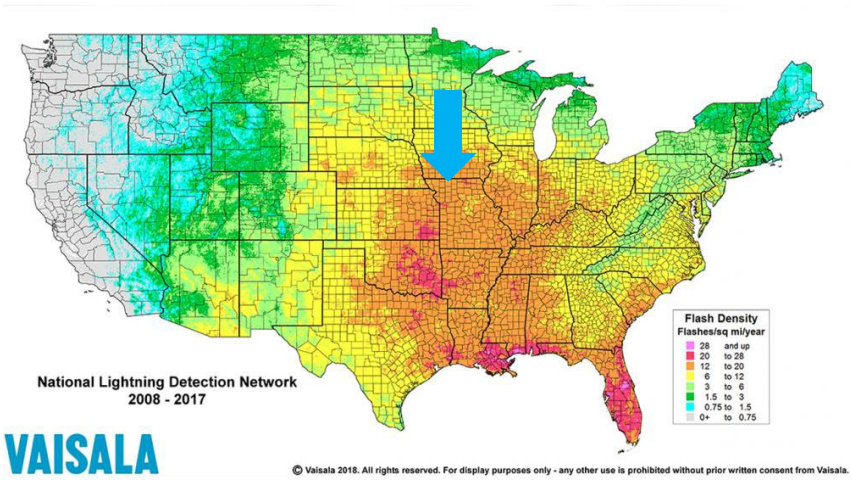
According to the National Oceanic and Atmospheric Administration (NOAA), hail is precipitation that is formed when thunderstorm updrafts carry raindrops upward into extremely cold atmosphere causing them to freeze. The raindrops form into small frozen droplets. They continue to grow as they come into 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/lightning events are an area-wide hazard that can happen anywhere in the county. Although these events occur similarly throughout the planning area, they are more frequently reported in more urbanized areas. In addition, damages are more likely to occur in more densely developed urban areas. The majority of Harrison County is rural

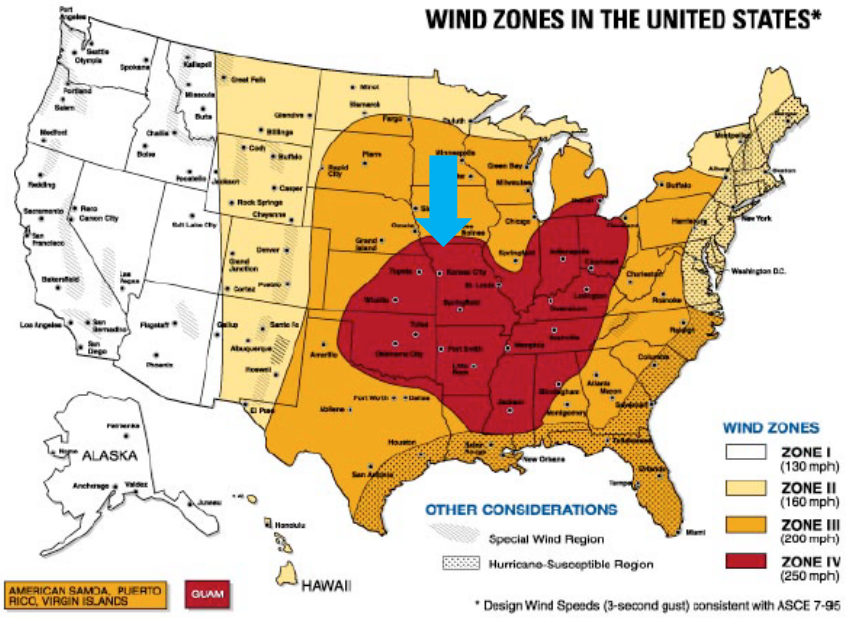
Figure 3.32. Location and Frequency of Lightning in Missouri



Source: National Weather Service, http://www.vaisala.com/en/products/thunderstormandlightningdetectionsystems/Pages/NLDN.aspx . Note: indicate location of planning area with a colored square or arrow.

Harrison County, indicated by a blue arrow in the following figure, is entirely within Zone 4. This information indicated that Harrison County could sustain wind speeds of up to 250 miles per hour.

Figure 3.33. 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), The table below describes typical damage impacts of the various sizes of hail.

Table 3.45. 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
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

The following table includes NCEI reported events and damages for the past 20 years for all four included hazards when information is available.

"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.

The tables below (**Table 3.46 through Table 3.48**) summarize past crop damages as indicated by crop insurance claims. The county's economy is largely agricultural in nature and the following tables illustrate the magnitude of the impact on the planning area's agricultural economy.

Table 3.46. Crop Insurance Claims Paid in Harrison County from High Winds, 2014-2024

Year	Crop Name	Cause of Loss	Amount Paid ($)
2014	No Claim		$0.00
2015	Oats	Wind / Excess Wind	$1,943.00
2016	No Claim		$0.00
2017	No Claim		$0.00
2018	No Claim		$0.00
2019	No Claim		$0.00
2020	Corn	Wind / Excess Wind	$9,272.00
2021	No Claim		$0.00
2022	No Claim		$0.00
2023	No Claim		$0.00
2024	No Claim		$0.00
Total			**$11,215.00**

Source: USDA Risk Management Agency, Insurance Claims, https://www.rma.usda.gov/tools-reports/summary-business/cause-loss

Table 3.47. Crop Insurance Claims Paid in Harrison County from Lightning, 2014-2024

Year	Crop Name	Cause of Loss	Amount Paid ($)
2014	No Claim		$0.00
2015	No Claim		$0.00
2016	No Claim		$0.00
2017	No Claim		$0.00
2018	No Claim		$0.00
2019	No Claim		$0.00
2020	No Claim		$0.00
2021	No Claim		$0.00
2022	Corn	Lightning	$1,509.00

2023	No Claim		$0.00
2024	Soybeans	Lightning	$11,875.00
Total			**$13,384.00**

USDA Risk Management Agency, Insurance Claims, https://www.rma.usda.gov/tools-reports/summary-business/cause-loss

Table 3.48. Crop Insurance Claims Paid in Harrison County from Hail, 2014-2024

Year	Crop Name	Cause of Loss	Amount Paid ($)
2014	Corn	Hail	$15,474.10
	Soybeans		$3,439.00
2015	No Claim		$0.00
2016	No Claim		$0.00
2017	Corn	Hail	$1,377.00
	Soybeans		$36,959.00
2018	Corn	Hail	$33,124.00
	Soybeans		$60,285.00
2019	Corn	Hail	$25,378.25
	Soybeans		$2,525.50
2020	No Claim		$0.00
2021	No Claim		$0.00
2022	No Claim		$0.00
2023	No Claim		$0.00
2024	No Claim		$0.00
Total			**$178,561.85**

USDA Risk Management Agency, Insurance Claims, https://www.rma.usda.gov/tools-reports/summary-business/cause-loss

Table 3.49. NCEI Reported Thunderstorm Events and Damages in Harrison County 2014-2024

Date	Event Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
Thunderstorm						
No Reports						
Severe Wind						
6/3/2014	Thunderstorm Wind	52	0	0	0	0
7/7/2014	Thunderstorm Wind	52	0	0	0	0
7/7/2014	Thunderstorm Wind	52	0	0	0	0
7/7/2014	Thunderstorm Wind	61	0	0	0	0
7/7/2014	Thunderstorm Wind	52	0	0	0	0
7/7/2014	Thunderstorm Wind	52	0	0	0	0
5/16/2015	Thunderstorm Wind	61	0	0	0	0
5/16/2015	Thunderstorm Wind	56	0	0	0	0
5/17/2015	Thunderstorm Wind	56	0	0	0	0
6/11/2015	Thunderstorm Wind	52	0	0	0	0
6/21/2015	Thunderstorm Wind	52	0	0	0	0
8/2/2015	Thunderstorm Wind	52	0	0	0	0
8/2/2015	Thunderstorm Wind	61	0	0	0	0
11/11/2015	Thunderstorm Wind	56	0	0	0	0
3/23/2016	Thunderstorm Wind	52	0	0	0	0
3/6/2017	Thunderstorm Wind	70	0	1	0	0
3/6/2017	Thunderstorm Wind	70	0	0	0	0
6/15/2017	Thunderstorm Wind	56	0	1	0	0
6/15/2017	Thunderstorm Wind	52	0	0	0	0
6/15/2017	Thunderstorm Wind	61	0	0	0	0
6/15/2017	Thunderstorm Wind	61	0	2	0	0
6/16/2017	Thunderstorm Wind	61	0	0	0	0
6/28/2017	Thunderstorm Wind	52	0	0	0	0

8/6/2018	Thunderstorm Wind	52	0	0	0	0
5/25/2019	Thunderstorm Wind	56	0	0	0	0
5/28/2019	Thunderstorm Wind	52	0	0	0	0
5/28/2019	Thunderstorm Wind	61	0	0	0	0
8/10/2020	Thunderstorm Wind	56	0	0	0	0
6/24/2021	Thunderstorm Wind	56	0	0	0	0
6/24/2021	Thunderstorm Wind	56	0	0	0	0
12/15/2021	Thunderstorm Wind	61	0	0	0	0
6/21/2022	Thunderstorm Wind	52	0	0	0	0
6/29/2023	Thunderstorm Wind	56	0	0	0	0
6/29/2023	Thunderstorm Wind	50	0	0	0	0
6/29/2023	Thunderstorm Wind	55	0	0	0	0
6/30/2023	Thunderstorm Wind	52	0	0	0	0
6/25/2024	Thunderstorm Wind	52	0	0	0	0
6/25/2024	Thunderstorm Wind	52	0	0	0	0
7/2/2024	Thunderstorm Wind	52	0	0	0	0
Total	**39**		**0**	**4**	**0**	**0**
Lightning						
No reports						
Hail						
5/10/2014	Hail	1.75	0	0	0	0
5/10/2014	Hail	1	0	0	0	0
5/10/2014	Hail	1	0	0	0	0
5/10/2014	Hail	1.75	0	0	0	0
5/10/2014	Hail	2	0	0	0	0
6/3/2014	Hail	1	0	0	0	0
6/3/2014	Hail	2.75	0	0	0	0
6/3/2014	Hail	2.25	0	0	0	0
6/3/2014	Hail	1.75	0	0	0	0
6/3/2014	Hail	1.75	0	0	0	0
6/7/2015	Hail	1	0	0	0	0
6/10/2015	Hail	0.75	0	0	0	0
6/10/2015	Hail	0.75	0	0	0	0
6/10/2015	Hail	1	0	0	0	0
6/10/2015	Hail	1	0	0	0	0
6/10/2015	Hail	1	0	0	0	0
6/21/2015	Hail	1	0	0	0	0
6/21/2015	Hail	1	0	0	0	0
6/21/2015	Hail	1	0	0	0	0
6/21/2015	Hail	0.75	0	0	0	0
6/21/2015	Hail	1	0	0	0	0
6/21/2015	Hail	0.88	0	0	0	0
7/13/2015	Hail	0.88	0	0	0	0
3/23/2016	Hail	0.88	0	0	0	0
6/30/2016	Hail	0.75	0	0	0	0
5/19/2018	Hail	1.25	0	0	0	0
5/19/2018	Hail	1.75	0	0	10000	0
5/19/2018	Hail	2.75	0	0	0	0
5/19/2018	Hail	1	0	0	0	0
5/19/2018	Hail	1.75	0	0	0	0
4/7/2019	Hail	0.88	0	0	0	0
5/25/2019	Hail	1	0	0	0	0
5/28/2019	Hail	1.5	0	0	0	0
5/28/2019	Hail	1.75	0	0	0	0
5/28/2019	Hail	1.5	0	0	0	0
5/28/2019	Hail	1.75	0	0	0	0
5/28/2019	Hail	1.75	0	0	0	0
5/28/2019	Hail	1	0	0	20000	0
8/29/2019	Hail	1.5	0	0	0	0
3/5/2022	Hail	1.5	0	0	0	0
3/31/2023	Hail	1.25	0	0	0	0

5/6/2023	Hail	2.5	0	0	0	0
5/6/2023	Hail	2.75	0	0	0	0
5/6/2023	Hail	2.75	0	0	0	0
5/6/2023	Hail	4	0	0	0	0
6/17/2023	Hail	1.25	0	0	0	0
4/27/2024	Hail	1.25	0	0	0	0
4/27/2024	Hail	1.5	0	0	0	0
4/27/2024	Hail	1	0	0	0	0
Total	**49**		0	0	**$30,000**	**0**
Total All hazards	**88**		**0**	**0**	**$30,000**	**0**

Source: NCEI Storm data – July 2025

Table 3.50. NCEI Event Summaries for Harrison County for Thunderstorm, Thunderstorm Wind, Hail, and Lightning 2014-2024 (Where Available)

6/3/2014	Thunderstorm Wind	Winds were estimated to be 60 MPH.
7/7/2014	Thunderstorm Wind	Several trees were reported down, blocking Route B, 2 miles south of Cainesville.
7/7/2014	Thunderstorm Wind	A member of the public reported a 60 mph wind gust via social media.
7/7/2014	Thunderstorm Wind	Several trees were down across Route 69, 2 to 3 miles south of Bethany.
7/7/2014	Thunderstorm Wind	A few 2-to-4-inch tree limbs were reported snapped in Bethany, Missouri.
7/7/2014	Thunderstorm Wind	An airplane pilot reported a 60-mph wind gust near Gilman City, Missouri.
5/16/2015	Thunderstorm Wind	Windows and siding damaged on a house. Nearby machine shed damaged with debris blown a quarter of a mile.
5/16/2015	Thunderstorm Wind	A barn was destroyed, and damage was reported to a grain elevator and silos.
5/17/2015	Thunderstorm Wind	A grain elevator was heavily damaged.
6/11/2015	Thunderstorm Wind	A member of the public reported a 60-mph wind gust.
6/21/2015	Thunderstorm Wind	A tree was down.
8/2/2015	Thunderstorm Wind	A trained spotter reported a 60-mph wind gust from strong storms that moved into the area.
8/2/2015	Thunderstorm Wind	There were several reports of 70 mph winds between Eagleville and Ridgeway.
11/11/2015	Thunderstorm Wind	Several trees were blown down between Gilman City and Brimson.
3/23/2016	Hail	No narrative for event
3/23/2016	Thunderstorm Wind	A tree was down on HWY 146 blocking the road. It is unknown what type of tree or how large it was.
6/30/2016	Hail	No narrative for event
3/6/2017	Thunderstorm Wind	Tractor trailer rig was blown over on I-35 near mile marker 93. 1 injury was reported with this incident.
3/6/2017	Thunderstorm Wind	Front porch was blown off of home. Additional damage was done to two out buildings.
6/15/2017	Thunderstorm Wind	Semi was blown off of I-35 near mile marker 99, with driver sustaining minor injuries.
6/15/2017	Thunderstorm Wind	Outbuildings destroyed on W 200th Street east of Washington Center.
6/15/2017	Thunderstorm Wind	A machine shed was destroyed. Power lines were down from Ridgeway to Cainsville to Blythedale, along with power outages in those areas, including Eagleville.
6/15/2017	Thunderstorm Wind	A tree fell on a mobile home on the 200 block of 2nd Street, temporarily trapping two people, both of whom sustained minor to moderate injuries.
6/16/2017	Thunderstorm Wind	A public spotter reported a 70 mph wind.
6/28/2017	Thunderstorm Wind	A storm chaser reported a 60 mph wind gust.
5/19/2018	Hail	Windows were broken in a residence due to golf ball sized hail.
8/6/2018	Thunderstorm Wind	A tree was down on Highway 69, just north of Bethany.
5/25/2019	Thunderstorm Wind	Tree branches were snapped at HWY 136 and 185th Avenue.

5/28/2019	Thunderstorm Wind	A 60 mph wind gust was reported.
5/28/2019	Thunderstorm Wind	Several 2 foot diameter trees were blown down. Several windows were blown out from wind blown hail and debris. Damage estimates unknown.
5/28/2019	Hail	Several windows were broken from wind blown quarter sized hail.
8/10/2020	Thunderstorm Wind	Several large trees and powerlines were blown down across the Blythedale and Eagleville areas.
6/24/2021	Thunderstorm Wind	Fire department reported 60 to 70 mph wind, and emergency management reported power poles down in Bethany.
6/24/2021	Thunderstorm Wind	There was a report of 65 mph wind with power poles down in Bethany.
12/15/2021	Thunderstorm Wind	There was a report of powerlines down in Bethany.
3/5/2022	Hail	This report came in via social media.
6/21/2022	Thunderstorm Wind	There was a report of 60 mph wind near Hatfield received via social media.
3/31/2023	Hail	A supercell produced 1.25 hail in Gilman City in southeastern Harrison County.
5/6/2023	Hail	Tennis ball sized hail was reported in rural southwestern Harrison County north of McFall.
5/6/2023	Hail	Mostly quarter to golf ball sized hail with a few stones up to baseball size was reported just south of Bethany.
5/6/2023	Hail	Baseball sized hail was reported in far southern Harrison County along US Highway 69.
5/6/2023	Hail	Softball sized hail was reported near Gilman City.
6/17/2023	Hail	Quarter to half dollar sized hail was reported south of Bethany.
6/29/2023	Thunderstorm Wind	Two semi-trucks overturned on Interstate 35.
6/29/2023	Thunderstorm Wind	Trees were downed and power went out across Bethany.
6/29/2023	Thunderstorm Wind	Mobile home was severely damaged. A roof was ripped from a metal building. Trees downed.
6/30/2023	Thunderstorm Wind	Wind gusts up to 60 mph were estimated along Interstate 35 near the Iowa border.
4/27/2024	Hail	Half dollar sized hail was reported on the southwest side of Bethany.
4/27/2024	Hail	Ping pong ball sized hail was reported just east of Bethany.
4/27/2024	Hail	Quarter sized hail was reported about 5 miles east of Bethany along US Highway 136.
6/25/2024	Thunderstorm Wind	Estimated gusts up to 60 mph in Bethany with power outages on the east side of town.
6/25/2024	Thunderstorm Wind	Power wires downed with power outages in Cainsville.
7/2/2024	Thunderstorm Wind	Estimated 60 mph wind gusts along Interstate 35 south of Bethany.

Source: NCEI Storm Data Base, June 2025

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 database.

Probability of Future Occurrence

The probability of Harrison County experiencing a thunderstorm event is calculated below. The calculations also differentiate between thunderstorm events that contain hail and high winds in the planning area.

$$\boldsymbol{Probability\ \ of\ Thunderstorms} = \frac{\boldsymbol{\#\ of\ events}}{\boldsymbol{Years}} = \frac{\mathbf{91}}{\mathbf{10}} = \mathbf{9.1}$$

According to the above calculation, the planning area of Harrison County should experience an average of 9.1 thunderstorms annually.

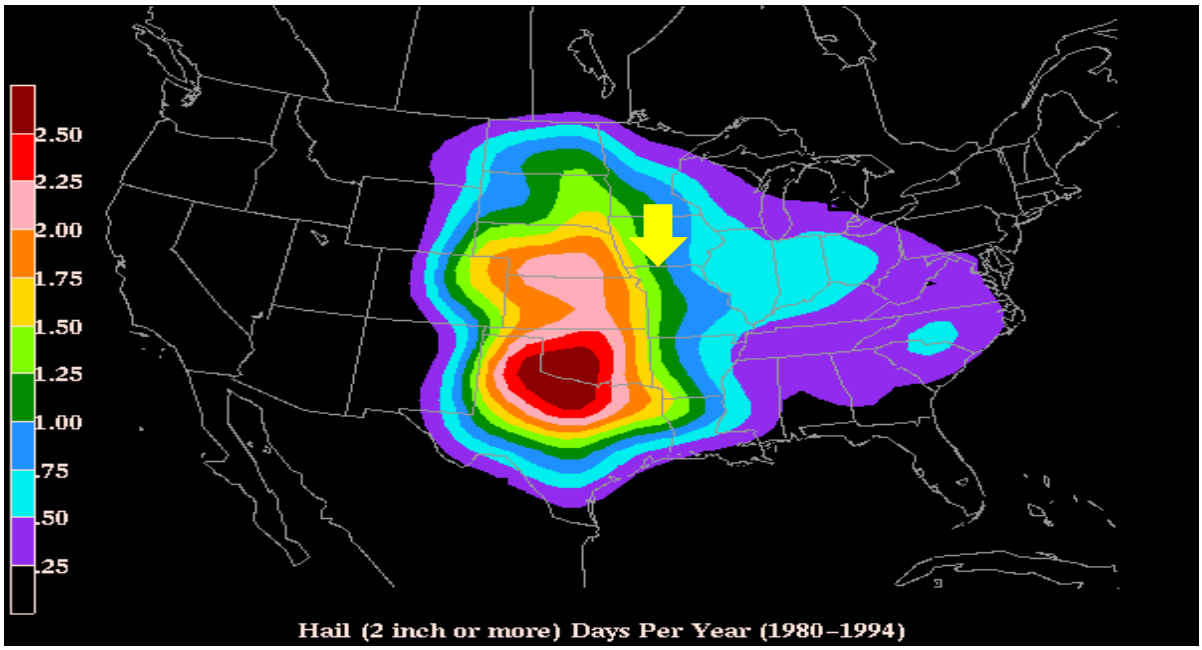
$$\boldsymbol{Probability\ of Thunderstorms\ with\ High\ or\ Excessive\ Winds} = \frac{\boldsymbol{\#\ of\ events}}{\boldsymbol{Years}} = \frac{\mathbf{42}}{\mathbf{10}} = \mathbf{4.2}$$

According to the above calculation, the planning area of Harrison County should experience an average of 4.2 thunderstorms annually with high or excessive winds.

$$\textbf{\textit{Probability of Thunderstorm with Hail}} = \frac{\textbf{\textit{\# of events}}}{\textbf{\textit{Years}}} = \frac{\mathbf{49}}{\mathbf{10}} = \mathbf{4.9}$$

According to the above calculation, the planning area of Harrison County should experience an average of 4.9 thunderstorms annually with hail.

Figure 3.34. Annual Hailstorm Probability (2" diameter or larger), U 1980- 1994



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

Changing Future Conditions Considerations

As temperatures increase with climate change, the severity of storms is likely to increase, as warm air is the key component of thunderstorms. Due to higher levels of convection, there could be a higher frequency and severity of storm events.

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, occasionally fatal injury.

In general, assets in the County are 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.

The method used to determine vulnerability to severe thunderstorms across Missouri was statistical analysis of data from several sources: National Centers for Environmental Information (NCEI) storm events data (1996 to December 31, 2021), HAZUS Building Exposure Value data, housing density and mobile home data from the U.S. Census (2019), and the calculated Social Vulnerability Index for Missouri Counties from the Hazards and Vulnerability Research Institute in the Department of Geography at the University of South Carolina.

From the statistical data collected, six factors were considered in determining overall vulnerability to lightning as follows: housing density, building exposure, percentage of mobile homes, social vulnerability, likelihood of occurrence, and average annual property loss. Based on natural breaks in the statistical data, a rating value of 1 through 5 was assigned to each factor. Once the ranges were determined and applied to all factors considered in the analysis for wind, hail, and lightning, they were rated individually and factored together to determine an overall vulnerability rating for thunderstorms. This vulnerability rating was taken from the 2023 Missouri State Hazard Mitigation Plan.

These rating values correspond to the following descriptive terms:

1) Low
2) Medium-Low
3) Medium
4) Medium-High
5) High

Table 3.51. Housing Density, Building Exposure, SOVI, and Mobile Home Data for Harrison County

Total Building Exposure (HAZUS)	Building Exposure Rating	Housing Density	Housing Density Rating	SOVI Rating	SOVI Ranking Rating	Percent Mobile Homes	Percent Mobile Homes Rating
$1,087,927,000	1	6.06	1	Medium High	4	6.5	3

2023 Missouri State Hazard Mitigation Plan

Table 3.52. High Wind, Hail, and Lightning Events, Likelihood of Occurrence, and Associated Ratings for Harrison County

High Wind	Hail	Lightning

Total Number of Events	Likelihood of Occurrence	Likelihood of Occurrence Rating	Total Number of Events	Likelihood of Occurrence	Likelihood of Occurrence Rating	Total Number of Events	Likelihood of Occurrence	Likelihood of Occurrence Rating
80	3.08	1	116	4.46	2	0	0.00	1

Source: 2023 Missouri State Hazard Mitigation Plan

Potential Losses to Existing Development

According to historical data reported for thunderstorm wind, high wind, hail, and lightning by NCEI, from 2014-2024, Harrison County sustained $30,000 in property damage. Harrison County, according to the USDA Risk Management Agency, sustained $203,160.85 in crop loss claims for the same time frame. Using this past data to calculate potential future losses, Harrison County could experience, on average, $23,316.09 in financial losses annually due to the effects of thunderstorms, wind, high wind, hail, and lightning.

Previous and Future Development

Any additional development that occurs in Harrison County will result in increased exposure and thus increased vulnerability to severe thunderstorms and their associated wind, hail, and lightning. However, none of the participating jurisdictions have completed or plan to complete any new development that would increase vulnerability.

Hazard Summary by Jurisdiction

Thunderstorms, high winds, lightning, and hail events are area-wide and expected to occur uniformly across the planning area. However, the magnitude of impacts may vary by jurisdiction based on the physical vulnerability of structures.

The following table details the percentage of housing built before 1939 and the percentage of manufactured housing units in each jurisdiction, as both characteristics may indicate increased vulnerability to severe thunderstorms that are accompanied by strong winds and hail.

Table 3.53. Housing Vulnerability Indicators by Harrison County Jurisdiction

Jurisdiction	Mobile Homes	% Mobile Homes	Homes Built before 1939	% Homes Built Before 1939
Harrison County	237	7.7%	654	21.3%
City of Bethany	15	1.3%	143	12.0%
Village of Blythedale	22	19.3%	31	27.2%
City of Cainsville	8	7.8%	57	55.3%
Village of Eagleville	7	5.6%	21	16.9%
Gilman City	14	10.2%	45	32.8%
Village of Mt. Moriah	4	7.5%	22	41.5%
City of New Hampton	16	12.4%	72	55.8%
City of Ridgeway	14	9.5%	62	42.2%

Source: U.S. Census Bureau, Physical Housing Characteristics for Occupied Housing Units (S2501)

Problem Statement

- Severe Thunderstorm events are highly likely to occur in Harrison County annually. Possible solutions for vulnerability to wind include a review of local ordinance and building codes that would address high winds and/or construction techniques to include structural bracing, straps and clips, or anchor bolts.
- Possible solutions for vulnerability to lightning include installation of lightning rods and surge protection.
- Possible solutions for vulnerability to hail include use of building materials less prone to damage.
- Possible solutions for vulnerability to hail and high winds associated with thunderstorms would be to encourage farmers to purchase crop insurance.

3.4.7 Severe Winter Weather

Hazard Profile

Hazard Description

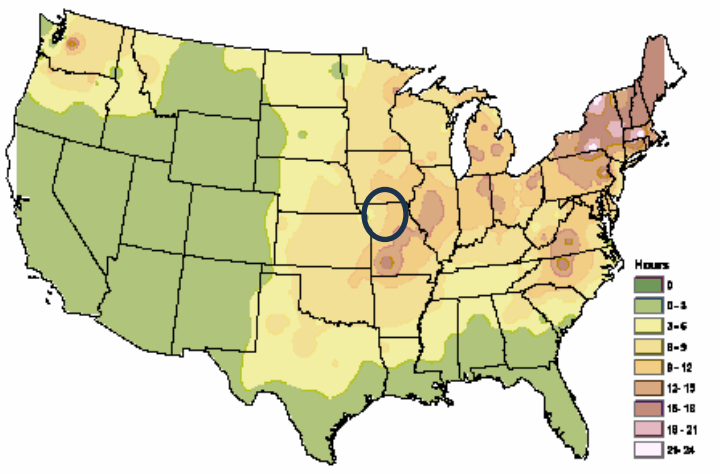
A major winter storm can last for several days and be accompanied by high winds, freezing rain or sleet, heavy snowfall, and cold temperatures. The National Weather Service describes different types of winter storm events as follows.

- **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, and freezing rain. According to the following figure, the average amount of hours of freezing rain Harrison County can expect annually is between 3

Figure 3.35. NWS Statewide Average Number of Hours per Year with Freezing Rain



Source: American Meteorological Society. "Freezing Rain Events in the United States." 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 the planning area.

For severe weather conditions, the National Weather Service issues some or all of the following products 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 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 3.54. NCEI Harrison County Winter Weather Events Summary, 1994-2024

Blizzard			
Date	Deaths	Injuries	Damage
12/7/2009	0	0	0
2/1/2011	0	0	0
12/20/2012	0	0	0
11/25/2018	0	0	0
Total: 4	**0**	**0**	**0**
Heavy Snow			
4/10/1997	0	0	$250,000
12/5/1999	0	0	0
3/15/2001	0	0	0
1/30/2002	0	0	0
1/20/2007	0	0	0
12/31/2007	0	0	0
2/5/2008	0	0	0
12/21/2013	0	0	0
2/4/2014	0	0	0
1/31/2015	0	0	0
2/1/2015	0	0	0
Total: 11	**0**	**0**	**$250,000**
Ice Storm			
12/21/1997	0	0	0
1/4/1998	0	0	0
11/29/2006	0	0	0

12/1/2007	0	0	0
12/10/2007	0	0	$25,000
12/18/2008	0	0	0
1/15/2017	0	0	0
Total: 7	**0**	**0**	**$25,000**
Winter Storm			
2/21/1997	0	0	0
12/11/2000	0	0	0
1/28/2001	0	0	0
2/9/2001	0	0	0
1/16/2003	0	0	0
2/16/2003	0	0	0
3/4/2003	0	0	0
1/4/2004	0	0	0
2/5/2004	0	0	0
1/4/2005	0	0	0
12/22/2007	0	0	0
2/16/2008	0	0	0
12/24/2009	0	0	0
2/21/2010	0	0	0
2/24/2011	0	0	0
2/21/2013	0	0	0
12/27/2015	0	0	0
1/11/2019	0	0	0
1/10/2020	0	0	0
4/16/2020	0	0	0
12/29/2020	0	0	0
1/25/2021	0	0	0
1/1/2022	0	0	0
1/14/2022	0	0	0
Total: 24	**0**	**0**	**0**
Total of all events: 46	**0**	**0**	**$225,000**

Source: NWS NCEI Data accessed July 2025

Table 3.55. Crop Insurance Claims Paid in Harrison County as a Result of Cold Conditions and Snow 2014-2024

Year	Crop Name	Cause of Loss	Amount Paid ($)
2014	Wheat	Cold Winter	$135,542.00
2015	No Claim		$0.00
2016	No Claim		$0.00
2017	No Claim		$0.00
2018	No Claim		$0.00
2019	No Claim		$0.00
2020	No Claim		$0.00
2021	No Claim		$0.00
2022	No Claim		$0.00
2023	Wheat	Cold Winter	$7,435.00
2024	No Claim		$0.00
Total			**$142,977.00**

Source: USDA Risk Management Agency, https://www.rma.usda.gov/tools-reports/summary-business/cause-loss

Table 3.56. NCEI Storm event summaries 1994-2024

Year	Date	Summary

2004	1/4/2004	A winter storm produced 6 to 7 inches of snow across the area
	2/5/2004	A winter storm on February 5th left a wide area of 6 to 8 inches of snow
2005	1/4/2005	1/4 to 3/4" of ice was reported across the area
2006	11/29/2006	One quarter to one half inch of ice reported across the county.
2007	1/20/2007	Four to six inches of snow, reported across the county.
	12/1/2007	One quarter of an inch of ice across the county was reported.
	12/10/2007	Around 3/4 of an inch of ice accumulated across the county. Many tree branches and power lines were down.
	12/22/2007	Six to nine inches of snow was reported across southern portions of the county.
	12/31/2007	Six inches of snow was measured in Ridgeway.
2008	2/5/2008	Six to ten inches of snow was reported across the county, with drifts to three feet. Ridgeway measured 10 inches of snow.
	2/16/2008	Up to four inches of snow was reported across the county. There was blowing and drifting snow.
	12/18/2008	One half inches of ice was reported.
2009	12/7/2009	Blizzard conditions were observed across the county. Snowfall amounts up to 8 inches was observed.
	12/24/2009	Ten to fourteen inches of snow fell across the county. Gusty northwest winds caused blowing and drifting of the snow.
2010	2/21/2010	Four to six inches of snow was reported across the county. Blowing and drifting snow caused hazardous driving conditions.
2011	2/1/2011	Blizzard conditions were observed across the county, with frequent wind gusts up to 45 mph, visibility less than 1/4 of a mile, and heavy snow of up to 10.5 inches, measured in Ridgeway. Travel was nearly impossible, with the blowing and drifting snow, and the very low visibilities.
	2/24/2011	The combination of up to 5 inches of snow, and blowing and drifting snow, led to hazardous driving conditions across the county.
2012	12/20/2012	The combination of high winds and snowfall of one to three inches caused blizzard conditions across the county.
2013	2/21/2013	Bethany measured eight inches of snow.
	12/21/2013	Light to moderate snow picked up during the afternoon hours on December 21. Preceding the snow freezing rain produced some minor icing in and around the area. Once the snow began it quickly accumulated between 6 and 9 inches across the area. The highest reported amount in the county came from Bethany, Missouri where 8 to 9 inches of snow fell. While there were several vehicle spin-outs across the area, and despite the ice accumulation the widespread effects were rather minimal
2014	2/4/2014	A major winter storm trekked through Kansas and Missouri on February 4 and 5. By the time the storm finished it dropped around a foot of

		snow across the entire area.
2015	1/31/2015	Light snow fell for a long duration across northern Missouri through the evening and overnight hours on January 1 through the early morning hours on February 2. Strong winds moved into the area while the snow was falling and caused visibility problems and drifting on the roads. The highest reported total from the county coming from Bethany, where 6 inches fell. Numerous vehicle accidents occurred due to poor driving conditions, but no serious injuries were reported
	12/27/2015	Several areas across northeast Kansas and northwest Missouri saw ice accumulation approaching a quarter inch as well as sleet ranging from a quarter to a half inch in most locations, with some locations reporting over an inch of sleet. Once the sleet ended another 3 to 4 inches of snow fell before the system moved out.
2016		No reported events
2017	1/15/2017	To finish off a prolonged freezing rain event across northeast Kansas and northwest Missouri light rain lifted north into far northern Missouri causing ice to accumulate through the day on Sunday and overnight into Monday morning. Several trained weather spotters from across northern Missouri reported a quarter inch of ice on all surfaces. Several area roads were ice covered through the day on Sunday and into Monday morning before temperatures warmed above freezing Monday morning.
2018	11/25/2018	Blizzard conditions started after a few hours of light to moderately falling snow. Once the heavy snow arrived winds gusted up to 46 mph for nearly 4 hours, creating whiteout conditions, officially measured by the ASOS at nearby KLWD as sub-quarter mile for that duration. Despite the heavy impacts from this system affecting Thanksgiving weekend return traffic, no serious injuries occurred from this event.
2019	1/11/2019	Between 8 and 10 inches of snow fell across Harrison County, with most of it falling over the course of the first 12 hours. Light snow continued into the next day (January 12), but it was fairly light and only accounted for 1 to 2 inches.
2020	1/10/2020	Freezing rain occurred through much of the night going into January 11 and caused around a quarter to one-third inch accumulation. This occurred prior to about 2 to 3 inches of snow falling. This resulted in several auto accidents. One occurred along I-35 near Bethany.
	4/16/2020	Light snow fell off and on through the day on Thursday, accumulating about an inch; however, by mid-to-late afternoon the snow picked up intensity. One to two inches per hour snow rates were reported across the area for periods. Numerous reports of very low visibility due to very heavy snow were also received. The heavier snow came to an end on the evening of April 16 and gradually tapered to a stop by early morning on April 17. When all was said and done there was about 6 to 10 inches of snow reported across portions of the county.
	12/29/2020	An area. Moderate, to at times heavy rain ensued through the rest of the morning and early to middle afternoon hours, before eventually moving out by the evening hours. The main impact from this storm was several power outages around the area. Due to the rain rates, not all of the nearly 1 inch of liquid precipitation accreted on surfaces, but a

		quarter to half inch did accrete, causing a significant disruption to the power, and closing numerous roads.
2021	1/25/2021	Light to moderate snow moved into far northwest Missouri on the morning of January 25, by mid-day roughly 6 inches of snow fell, and by the end of the event roughly 6 to 7 inches of snow fell across the county.
2022	1/1/2022 1/14/2022	COOP observer in Ridgeway reported 6 inches of snow on New Year's Day. Several reports from across the area indicated around 6 inches of snow in Harrison County.
2023		No reported events
2024		No reported events

Source: NCEI Database; July 2025

Probability of Future Occurrence

The probability of a winter storm is calculated below using the formula of number of events divided by the number of years

$$\boldsymbol{Probability\ of\ a\ winter\ event} = \frac{\boldsymbol{\#\ of\ events}}{\boldsymbol{Years}} = \frac{\mathbf{46}}{\mathbf{30}} = \mathbf{1.53}$$

This calculation indicates that Harrison County will experience on average, 1.53 winter weather events each year.

Changing Future Conditions Considerations

With higher average temperatures occurring across the globe due to climate change, one might assume that winters would be milder. However, with the increase in the atmosphere's water-holding capacity, there is an increased likelihood of heavy snow events. Changes in the jet stream patterns can also result in allowing pools of very cold air to sink further south than usual. In summation, the changing climate could result in more severe storms, both in duration and amount of precipitation.

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 damage 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 damage from winter storms. In particular ice accumulation during winter storm events damage power lines due to the ice weight on

the lines and equipment. Damage also occurs to lines and equipment from falling trees and tree limbs weighed down by ice. Potential losses could include cost of repair or replacement of damaged facilities and lost economic opportunities for businesses.

Some winter storms, most notably ice storms, can and do cause significant damage and disruption to infrastructure, often leading to hundreds of thousands, if not millions of dollars in damages.

The most significant damage occurred in 1997 when a snowstorm caused over $250,000 in damage, Major ice storms in the past have led to long duration power outages and costly repairs.

Crop losses have totaled $147,922 due to winter storm conditions over the last 10 years, calculated to an annualized basis the estimated cost would be $14,792.20. Other costs associated with winter storms are harder to annualize due to the lack of data.

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 BCA Toolkit 6.0 Release Notes, the economic impact as a result of loss of power is $174 per person per day of lost service.

From the 2023 Missouri Hazard Mitigation Plan, the method used to determine vulnerability to severe winter weather across Missouri was statistical analysis of data from several sources: National Centers for Environmental Information (NCEI) storm events data (1996 to December 31, 2021), HAZUS Building Exposure Value Data, housing density data from the US Census, and the calculated Social Vulnerability Index for Missouri Counties from the Hazard and Vulnerability Research Institute in the Department of Geography at the University of South Carolina.

From the statistical data collected, five factors were considered in determining overall vulnerability to severe winter weather as follows: housing density, building exposure, social vulnerability, likelihood of occurrence, and average annual property loss. Based on natural breaks in the statistical data, a rating value of 1 through 5 was assigned to each factor. These rating values correspond to the following descriptive terms:

1. Low
2. Low-medium
3. Medium
4. Medium-high
5. High

Once the individual ratings were determined for the above factors, a combined vulnerability rating was computed for severe winter weather events. The following table provides the calculated ranges applied to determine overall vulnerability of Missouri counties to severe winter weather.

Table 3.57. Ranges for Severe Winter Weather Combined Vulnerability Rating

	Low (1)	Low-Medium (2)	Medium (3)	Medium-High (4)	High (5)
Severe Winter Weather Combined Vulnerability	7-8	8-10	10-12	12-15	15-22

Source: 2023 Missouri State Hazard Mitigation Plan

Table 3.58. Housing Density, Building Exposure, and SOVI Data for Harrison County

	Total Building Exposure (HAZUS)	Building Exposure Rating	Housing Density	Housing Density Rating	SOVI Ranking	SOVI Rating
Harrison	$1,087,927,000	1	6.06	1	Medium High	4

Source: 2023 Missouri State Hazard Mitigation Plan

The following information was taken from the 2023 Missouri State Hazard Mitigation Plan. It includes the factors considered for severe winter weather exposure to Harrison County.

Table 3.59. Additional Statistical Data Compiled for Vulnerability Analysis for Harrison County

Total # of Winter Weather Events	Likelihood of Occurrence	Likelihood of Occurrence Rating	Total Annualized Property Loss	Total Annualized Property Loss Rating	Overall Vulnerability Rating	Overall Vulnerability Rating Description
49	1.88	3	$10,577	1	10	Medium Low

Source: 2023 Missouri State Hazard Mitigation Plan

Table 3.60. Annualized Severe Winter Weather Damages in Harrison County

Annualized Blizzard Property Loss ($)	Annualized Heavy Snow Property Loss ($)	Annualized Ice Storm Property Loss ($)	Annualized Winter Storm Property Loss ($)	Annualized Winter Weather Property Loss ($)	Total Annualized Winter Weather Property Loss ($)
0	$9,615	$962	$0	$0	$10,577

Source: 2023 Missouri State Hazard Mitigation Plan

Potential Losses to Existing Development

The next severe winter storm will most likely close schools and businesses for multiple days and make roadways hazardous for travel. Heavy ice accumulation may damage electrical infrastructures causing prolonged power outages for large portions of the region. In addition, freezing temperatures make water lines vulnerable to freezing. Fallen tree limbs also pose a threat to various structures/infrastructures across the country.

Previous and Future Development

Future development could potentially increase vulnerability to this hazard by increasing demand on the utilities and increasing the exposure of infrastructure networks. At this time, there is little expected in the way of new development that would lead to an increased risk to the planning area.

Hazard Summary by Jurisdiction

Although crop loss as a result of severe winter weather occurs more in the unincorporated portions of the planning area, the density of vulnerable populations is higher in the urban areas of the planning areas. It is considered that the magnitude of this hazard is relatively equal. The factors of probability, warning time, and duration are also equal across the planning area. Therefore, the conclusion is that the hazard does not substantially vary by jurisdiction.

Problem Statement

Harrison County is expected to experience at least one severe winter weather event annually. The county has a low-medium vulnerability rating. Jurisdictions should enhance their weather monitoring to be better prepared for sever weather hazards. If jurisdictions monitor winter weather, they can dispatch road crews to prepare for the hazard. County and city crews can also trim trees along power lines to minimize the potential for outages due to snow and ice. Citizens should also be educated about the benefits of being proactive to alleviate property damage as well as preparing for power outages. Education needs to occur to ensure all residents are aware of the shelters in the County and what types of emergency supplies to keep on hand, in the event of a major storm event.

3.4.8 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.

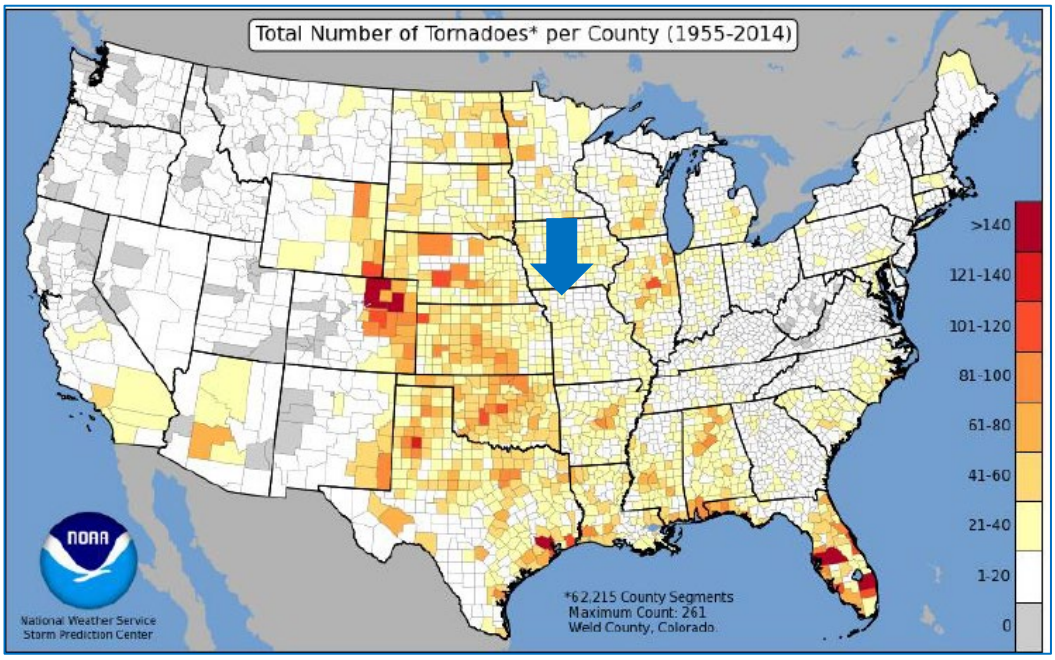
A typical tornado can be described as a funnel-shaped cloud that is "anchored" to a cloud, usually a cumulonimbus that is also in contact with the earth's surface. This contact on average lasts 30 minutes and covers an average distance of 15 miles. The width of the tornado (and its path of destruction) 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

Tornadoes can occur anywhere in the planning area. The following map was obtained from the 2023 Missouri State Hazard Mitigation Plan and shows the total number of tornadoes per county. Harrison County (indicated with a blue arrow) shows the total number of tornadoes within the planning area as between 1-20.

Figure 3.36. Tornado Activity in the United States 1955-2014



Source: NOAA Tornado Activity in the United States

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 Enhance Fujita Scale, based on the original Fujita Scale developed by Dr. Theodore Fujita, a renowned severe storm researcher). The EF-Scale (see following table) 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 3.61. Enhanced F Scale for Tornado Damage

FUJITA SCALE			DERIVED EF SCALE		OPERATIONAL EF SCALE	
F Number	Fastest ¼-mile (mph)	3 Second Gust (mph)	EF Number	3 Second Gust (mph)	EF Number	3 Second 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/faq/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 the following table. 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 3.62. Enhanced Fujita Scale with Potential Damage

Enhanced Fujita Scale			
Scale	Wind Speed (mph)	Relative 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
EF4	166-200	0.7%	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.

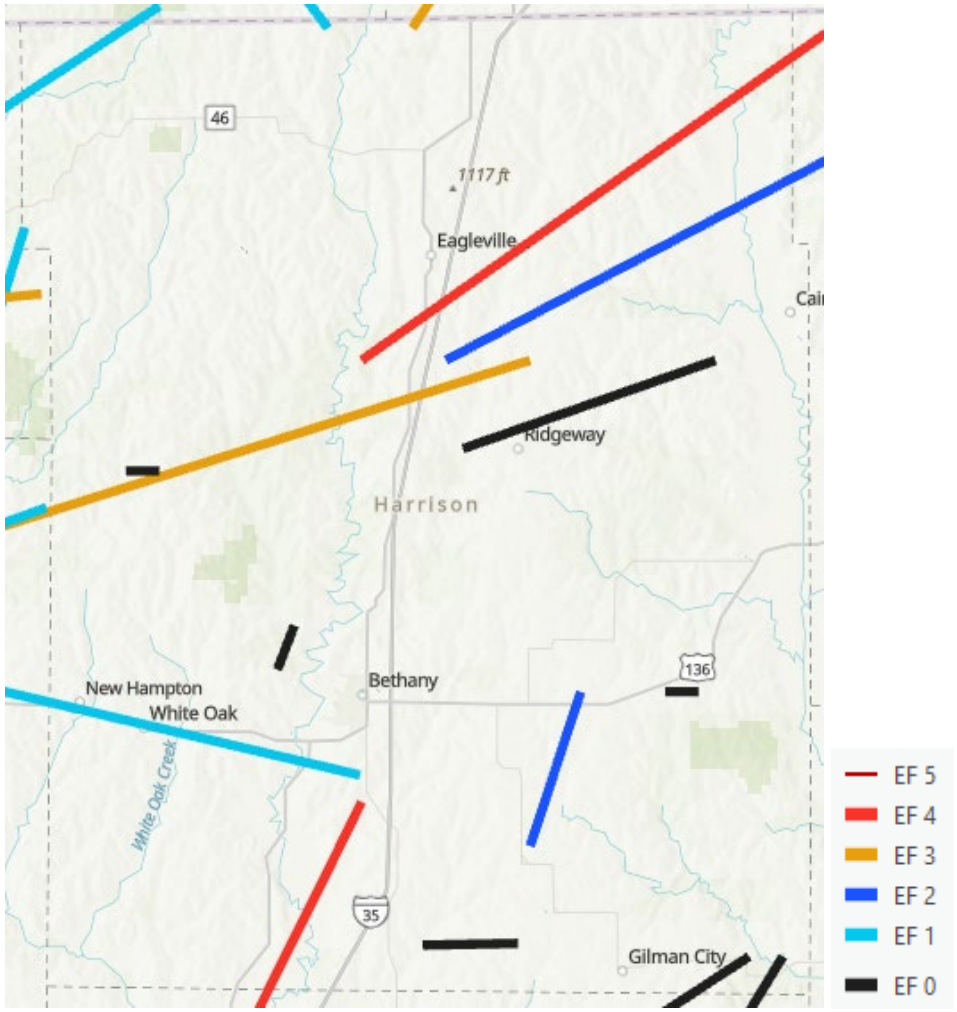
Table 3.63. Recorded Tornadoes in Harrison County, 1993 – Present

Date	Beginning Location	Ending Location	Length (miles)	Width (yards	F/EF Rating	Death	Injury	Property Damage	Crop Damages
4/30/03	7N NEW HAMPTON	7N NEW HAMPTON	1	50	F0	0	0	0	0

4/30/03	2W RIDGEWAY	2W RIDGEWAY	10	100	F0	0	0	2,500	0
5/24/04	3WNW BETHANY	3WNW BETHANY	0.5	50	F0	0	0	0	0
5/24/04	10E BETHANY	10E BETHANY	0.5	50	F0	0	0	0	0
5/27/04	UNKNOWN	MELBOURNE	1	50	F0	0	0	0	0
5/29/04	5S BETHANY	5S BETHANY	2	800	F4	0	0	0	0
5/29/04	1SW MELBOURNE	1SW MELBOURNE	1	100	F0	0	0	0	0
6/4/05	5W HATFIELD	5W HATFIELD	5	100	F1	0	0	0	0
6/30/06	3W HATFIELD	3W HATFIELD	1	50	F0	0	0	0	0
6/30/14	4ESE BRIDGEPORT	3S BLUE RIDGE	2.99	200	EF0	0	0	0	0
6/28/17	1NW NEW HAMPTON	2S BETHANY	10.31	75	EF1	0	0	Yes	0
	Total	**11**				**0**	**0**	**2,500**	**0**

Source: National Centers for Environmental Information, http://www.NCEI.noaa.gov/stormevents/
Note: Storm report database showed zero damage numbers, but narratives indicated damage was observed.

Figure 3.37. Harrison County Map of Historic Tornado Events



Probability of Future Occurrence

There is an 18% chance of a tornado occurring in the planning area in any given year.

$$Probability\ of\ Tornado\ Incident = \frac{6}{32} = 0.18$$

Changing Future Conditions Considerations

According to the Missouri State Hazard Mitigation Plan, 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 US. The research concluded that the number of days with large outbreaks has been increasing since the 1950's 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 more densely packed tornadoes. Because Chariton County experiences approximately one tornado every four years, and based on the research, the frequency of such events could increase in the future.

Vulnerability

Vulnerability Overview

Harrison County, Missouri, like much of the central United States, is significantly vulnerable to tornadoes. Its location within "Tornado Alley" means it frequently experiences the clash of warm, moist air from the Gulf of Mexico and cold, dry air from the north, creating ideal atmospheric conditions for severe thunderstorms and tornado development.

Historical data confirms this vulnerability, with Harrison County having experienced notable tornado events, including a deadly F3 tornado in 1958 with a track potentially spanning up to 45 miles across multiple counties, and recent EF1 tornadoes in 2022.

Figure 3.38. Tornado Alley in the U.S.



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

The 2023 Missouri State Hazard Mitigation Plan provided the following vulnerability analysis of Harrison County to tornadoes.

The method used to determine vulnerability to tornadoes across Missouri was statistical analysis of data from several sources: HAZUS building exposure value data, population density and mobile home data from the U.S. Census (2019), the calculated Social Vulnerability Index for Missouri Counties from the Hazards and Vulnerability Research Institute in the Department of Geography at the University of South Carolina, and storm events data (1950 to December 31, 2021) from the National Centers for Environmental Information (NCEI). It is important to realize that one limitation to the NCEI data is that many tornadoes that might have occurred in uninhabited areas, as well as some in inhabited areas, may not have been reported. The incompleteness of the data suggests that it is not appropriate for use in parametric modeling. In addition, NOAA data cannot show a realistic frequency distribution of different Fujita scale tornado events, except for recent years. Thus, a parametric model based on a combination of many physical aspects of the tornado to predict future expected losses was not used. The statistical model used for this analysis was probabilistic based purely on tornado frequency and historic losses. It is based on past experience and forecasts the expected results for the immediate or extended future.

From the statistical data collected, six factors were considered in determining overall vulnerability to tornadoes as follows: building exposure, population density, social vulnerability, percentage of mobile homes, likelihood of occurrence, and annual property loss. Based on natural breaks in the statistical data, a rating value of 1 through 5 was assigned to each factor. Once the ranges were determined and applied to all factors considered in the analysis, the ratings were combed to determine an overall vulnerability rating for tornadoes. These rating values correspond to the following descriptive terms:

1) Low
2) Medium-Low
3) Medium
4) Medium-High
5) High

Table 3.64. Likelihood of Occurrence, Annual Property Loss, and Overall Vulnerability Rating for Harrison County by Tornadoes

Total Number of Tornadoes	24
Likelihood of Occurrence	0.333
Likelihood of Occurrence Rating	3
Total Annualized Property Loss	$84,202
Total Annualized Property Loss Rating	1
Overall Vulnerability Rating	13
Overall Vulnerability Rating Description	Medium

Source: 2023 Missouri State Hazard Mitigation Plan

Table 3.65. Tornado Vulnerability Rating for Harrison County

Vulnerability	Data for Harrison County
Total Building Exposure	$1,087,927,000
Exposure Rating	1
Population Density	11.56
Population Density Rating	1
SOVI Index Ranking	Medium High
SOVI Rating	4
Percent of Mobile Homes	6.5%
Mobile Home Rating	3

Source: 2023 Missouri State Hazard Mitigation Plan

Potential Losses to Existing Development

While the National Centers for Environmental Information (NCEI) reports do indicate tornado damage and include some associated dollar figures for Harrison County, the available data is often too limited and inconsistent. This sparsity makes it challenging to accurately calculate a reliable annualized damage assessment for the county.

Previous and Future Development

New building development and community growth can significantly heighten vulnerability to tornadoes in several ways, even in areas historically prone to them. Primarily, as urban and suburban areas expand, they often sprawl into previously undeveloped or sparsely populated regions. This "urban sprawl" directly increases the number of people and properties within a tornado's potential path. A tornado passing through an open field causes minimal damage, but the same tornado traversing a newly developed subdivision with hundreds of homes will result in far greater economic loss and risk to human life, regardless of its intensity.

Hazard Summary by Jurisdiction

While the physical hazards of a tornado remain consistent throughout the county, the scale of its impact—measured by potential casualties and property damage—varies significantly depending on the population density of the affected community.

Problem Statement

Harrison County has inadequate tornado shelters throughout the county, not everyone utilizes social media and/or texting, the rural areas do not have warning sirens, lack of awareness for available shelters and more education needs to occur. Possible solutions include promoting the use of NOAA weather radios and conducting public education and outreach activities to increase awareness of tornado risk.

3.4.9 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.

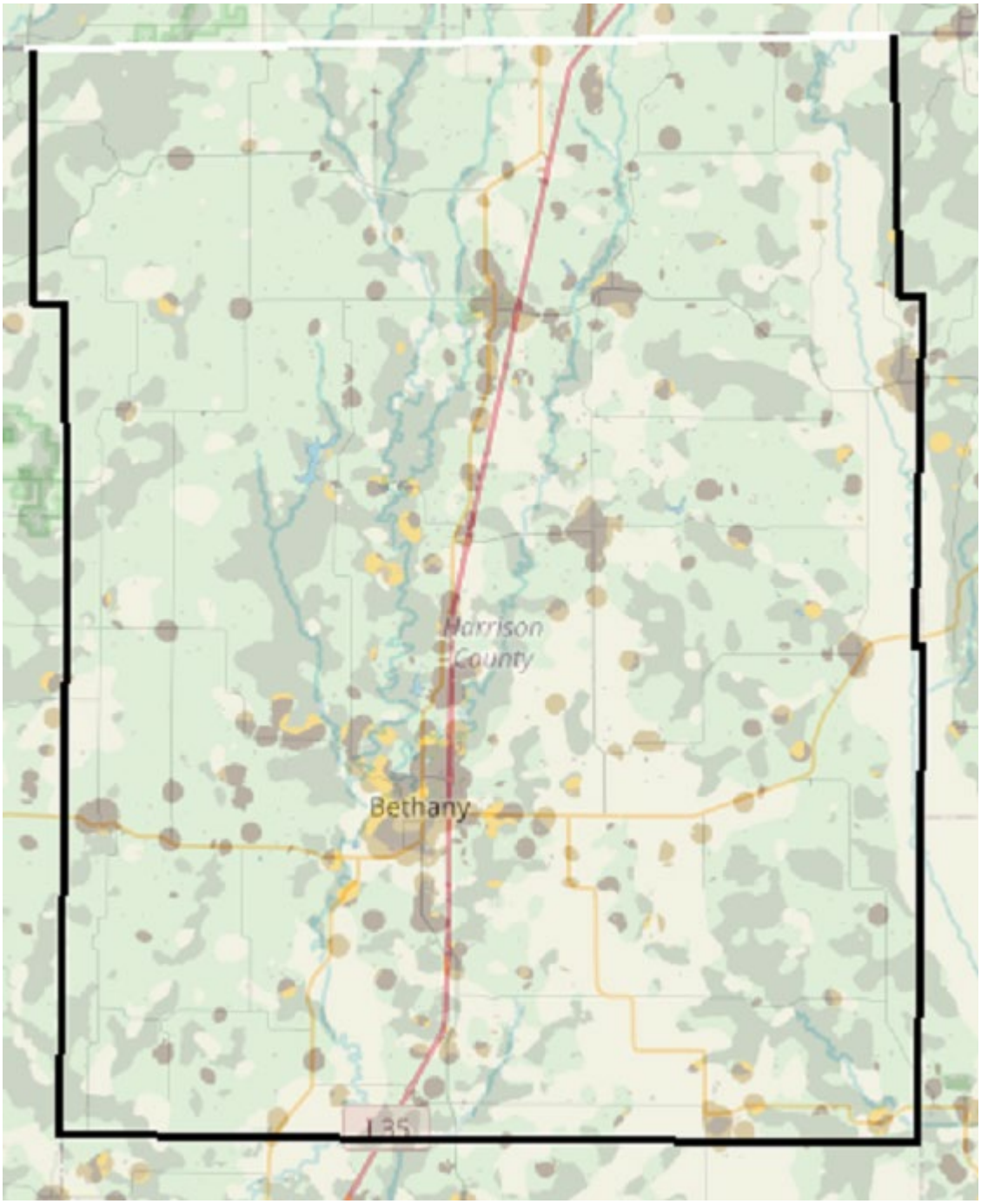
Most of Missouri fires occur during the spring season between February and May. The length and severity of wildland fires depend largely on weather conditions. Spring in Missouri is usually characterized by low humidity and high winds. These conditions result in higher fire danger. In addition, due to 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

While all of Harrison County is at risk for the possibility of wildfires, areas with a higher Wildland Urban interface (WUI) are more susceptible to losses from a wildfire situation.

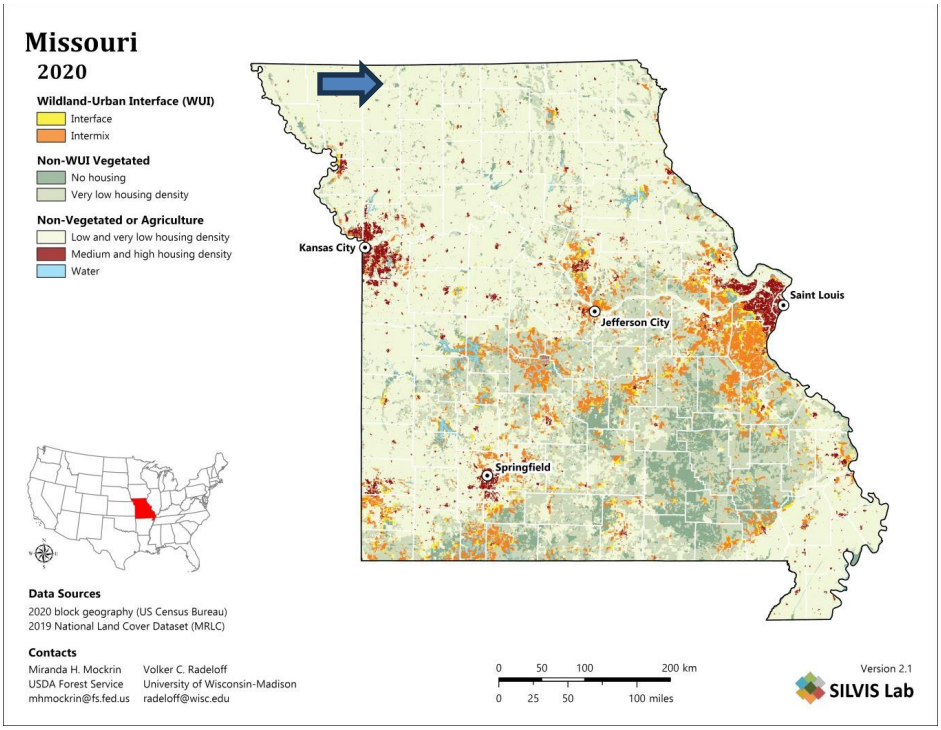
The term Wildland-Urban Interface (WUI) refers to the zone of transition between unoccupied land and human development. Within the WUI, there are two specific areas identified: 1) Interface and 2) Intermix. The interface areas are those areas that abut wildland vegetation and the Intermix areas are those areas that intermingle with wildland areas.

Figure 3.39. University of Wisconsin Wildland Urban Map showing Harrison County



Source: University of Wisconsin Global Wildland-Urban Interface (WUI) – 2020 accessed June 2025

Figure 3.40. Wildfire Urban Interface (WUI) Areas, 2020



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 the large fire storms seen on television news stories.

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 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

Table 3.66. Counts of fires reported by year

Year	Number of fires reported
2015	10
2016	8
2017	10
2018	0
2019	3
2020	1
2021	1
2022	4
2023	12
2024	18
Total	**67**
Average	**7**

Source: Missouri department of conservation wildfire reporting system

Table 3.67. Average Acreage Burned

Year	Acres Burned
2015	360
2016	21
2017	718
2018	0
2019	1.217
2020	4.921
2021	4.674
2022	15.919
2023	843.803
2024	358.768
Average	**233**
Total	**2328.302**

Source: Missouri department of conservation wildfire reporting system

Figure 3.41. Average Annual Acreage Burned

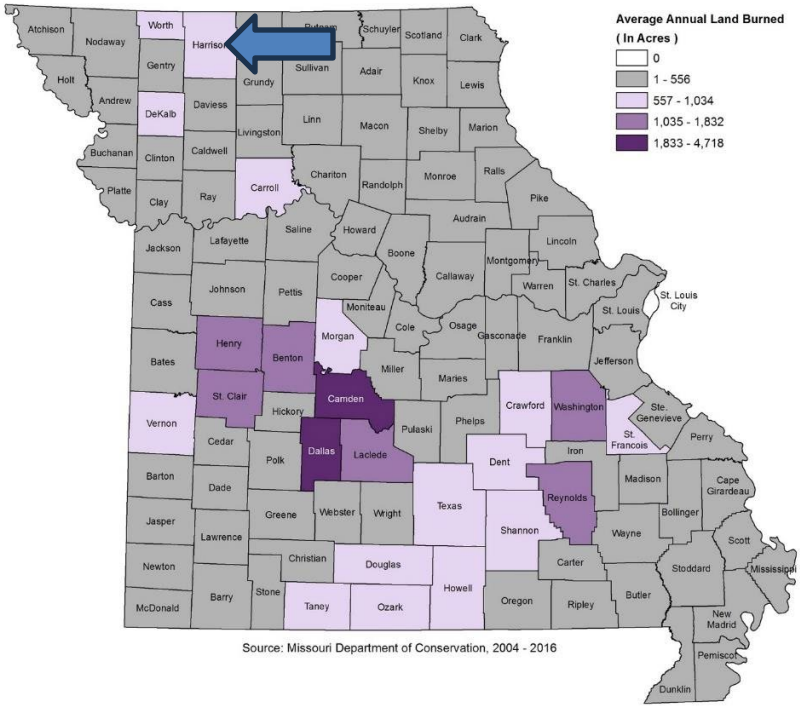


Table 3.68. Causes of Fire by type and count

Cause	Number of fires
Unknown	37
Miscellaneous	18
Debris	6
Equipment	5
Smoking	1

Source: Missouri department of conservation wildfire reporting system.

Probability of Future Occurrence

The probability of wildfires is calculated by dividing the total of fires, 67, by the total number of years reviewed, 10, this yields a probability of 6.7. Over the 10 years that have been reviewed, all 10 experienced at least 1 wildland fire..

$$Probability\ of\ wildland\ fire\ Incident = \frac{67}{10} = 6.7$$

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

Potential Losses to Existing Development

Table 3.69. Estimated numbers and Values of Structures and Population Vulnerable to Wildfire in Harrison County

Type of Property	Number of Structures	Value of Structures	Population
Residential	48	$9,130,939	116
Agriculture	65	$160,739	0
Commercial	2	$1,063,932	0
Total	**115**	**$9,291,678.00**	**116**

Source: 2023 Missouri state hazard mitigation plan

Table 3.70. Statistical Data for Wildfire Hazard in Harrison County

Number of Wildfires 2015-2025	Likelihood of Occurrence (#/year)	Total Acres Burned	Average Annual Acreage Burned
67	7	2,328.302	233

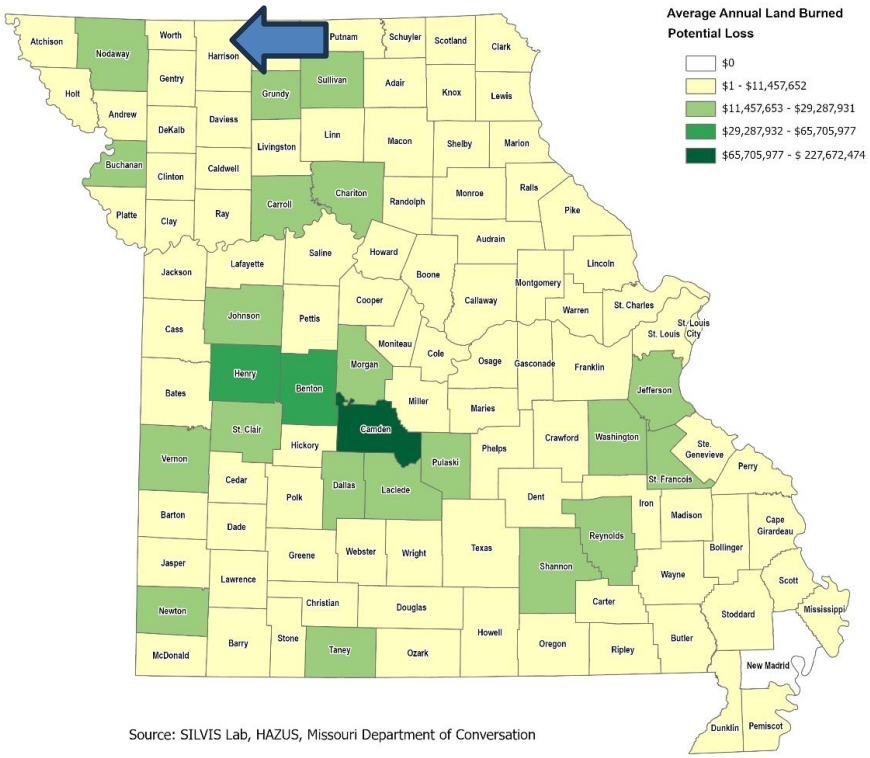
Source: 2023 Missouri State Hazard Mitigation Plan

Table 3.71. Wildfire Potential Loss Estimates in Harrison County

Total WUI Acreage	Total Structure Value Within WUI	Average Value/Acre within WUI	Average Annual Acreage Burned	Potential Loss
546.75	$10,354,601	$18,938	233	$11,107,668

Source: 2023 Missouri State Hazard Mitigation Plan

Figure 3.42. Wildfire Potential Loss Estimate



Impact of Previous and Future Development

Future and previous development in the wildland-urban interface would increase vulnerability to the hazard. There are no known developments within the county that would increase the vulnerability to wildfires.

Hazard Summary by Jurisdiction

The rural jurisdictions in the planning area are all surrounded by undeveloped agricultural land and face the possibility of a wildfire event. The school districts are mostly located in a rural area and do not face danger of wildfire due to barriers in place around the schools. Future wildfires in Harrison County should have a negligible adverse impact on the community, as it would affect a small percentage of the population. Nonetheless, homes and businesses located in unincorporated areas are at higher risk from wildfires due to proximity to wood and distance from fire services. Variations in both structural/urban and wildfires are not able to be determined at this time due to lack of data. However, both fire types are expected to occur on an annual basis across the county.

Problem Statement

Residents do not comply with burn bans, education is not readily available for the levels of burn bans, many residents lack education in fire safety, and not all residents utilize social media and texting. Education should occur on the dangers of not complying with burn bans, more education

for fire safety, and utilization of social media and texting for early warning.

Due to the regions high drought risk they may be more susceptible to fires. The plan could address this potential for high crop losses during drought and lessen the risk of wildfires during drought

4 MITIGATION STRATEGY 4.1

4.1 Goals 4.1

4.2 Identification and Analysis of Mitigation Actions 4.2

4.3 Implementation of Mitigation Actions 4.6

4.4 Harrison County Actions for 2025 ..... 4.10

This section presents the mitigation strategy updated by the Mitigation Planning Committee (MPC) based on the [updated] risk assessment. The mitigation strategy was developed through a collaborative group process. The process included review of [updated] general goal statements to guide the jurisdictions in lessening disaster impacts as well as specific mitigation actions to directly reduce vulnerability to hazards and losses. The following definitions are taken from FEMA's *Local Mitigation Planning Policy Guide (2023)*

- **Goals** are broad, long-term policy and vision statements that explain what is to be achieved by implementing the mitigation strategy.

- A **mitigation action** is a measure, project, plan or activity proposed to reduce current and future vulnerabilities described in the risk assessment.

4.1 Goals

This planning effort is an update to Harrison County's existing hazard mitigation plan approved by FEMA on May 3rd 2021. Therefore, the goals from the 2021 Harrison 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 2023 State Hazard Mitigation Plan goals were reviewed. The MPC also reviewed the goals from current surrounding county plans. The MPC Planning Committee determined that the goals from the previous plan would be modified to the following:

- Goal 1: Eliminate loss of life, minimize injuries and reduce property damage caused by tornadoes, severe thunderstorms including high winds, hail, and lightning.
- Goal 2: Minimize property damage due to flooding, levee failure, and dam failure; including high hazard potential dams (HHPD).
- Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures, and wildfire.
- Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather.
- Goal 5: Minimize injuries and property damage due to seismic and/or geological events.

The goals were changed to more accurately reflect the hazards faced by jurisdictions and provide a targeted approach to address said hazards.

4.2 Identification and Analysis of Mitigation Actions

During the first MPC meeting the key members of the Mitigation Planning Committee were identified and outreach strategies were discussed for reaching more members of the community, specifically underserved populations, which in the case of Chariton County are either over the age of 65, low income, or disabled. A full mailing list of individuals and organizations that were invited can be found in Appendix B. Public questionnaires were distributed to attendees.

Outreach strategies discussed during the "Kick-Off" meetings were:

- Attendees of the "kick-off" meeting would encourage participation by inviting other members of the community to participate. Methods would include inviting co-workers, community members, announcing the plan at meetings and at church, and posting meeting flyers on websites, Facebook pages, and in public places.

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

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

The focus of Meeting #3 was update of the mitigation strategy. For a comprehensive range of mitigation actions to be considered, the MPC reviewed the following information during Meeting #3:

- A list of actions proposed in the previous mitigation plan, the current 2023 State Plan, and approved plans in surrounding counties,
- Key issues from the risk assessments, including the problem statements concluding each hazard profile and vulnerability analysis,
- State priorities established for HMA grants, and
- Public input during meetings, responses to data collection questionnaires, and other efforts to involve the public in the plan development process.

For Meeting #3, individual jurisdictions, including school and special districts, developed final mitigation strategy for submission to the MPC. They were encouraged to review the details of the risk assessment vulnerability analysis specific to their jurisdiction. They were also provided a link to the FEMA's publication, *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).* This document was developed by FEMA as a resource for identification of a range of potential mitigation actions for reducing risk to natural hazards and disasters.

The MPC reviewed the actions from the previously approved plan for progress made since the plan had been adopted, using worksheets included in Appendix C of this plan. Prior to Meeting #3, the list of actions for each jurisdiction was emailed to that jurisdiction's MPC representative along with the worksheets. 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; or
- Not Yet Started, with a discussion of the reasons for lack of progress.

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 29 completed actions, 72 continuing actions (either ongoing or modified), and 27 deleted actions.

Table 4.1 provides a summary of the action statuses for each jurisdiction:

Table 4.1. Action Status Summary

Jurisdiction	Completed Actions	Continuing Actions (ongoing or modify)	Deleted Actions
Harrison County	2	14	5
Bethany	2	9	4
Bylthdale	-	-	-
Cainsville	3	7	2
Eagleville	2	5	2
Gilman City	3	6	2
City of Ridgeway	0	4	0
New Hampton	3	7	2
North Harrison R-III school district	2	3	1
Ridgeway R-V school district	4	4	1
South Harrison R-II school district	2	3	1
Total	29	76	27

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	Completion Details (date, amount, funding source)
County 2021.14	Completed in 2026 plan update using local funding
County 2021.15	Completed in 2026 plan update using local funding
CB 2021.3	Posted to city website
CB 2021.10	Completed in 2026 plan update using local funding
CC 2021.1	At city hall
CC 2021.5	Completed with emergency services
CC 2021.7	Completed in 2026 plan update using local funding
VE 2021.3	Published in various locations using local funds
VE 2021.8	Completed in 2026 plan update using local funding
GC 2021.3	Posted to websites, and various other plans and community announcements using local funds
GC 2021.6	Completed using local funding, agreements in place with public and private partners
GC 2021.8	Completed in 2026 plan update using local funding
CNH 2021.3	Posted to websites, community board, various plans using local funding
CNH 2021.6	Agreements in place with private and public partners using local funding sources
CNH 2021.9	Completed in 2026 plan update using local funding
NHSD 2021.3	Completed in 2026 plan update using local funding
NHSD 2021.4	Completed in 2026 plan update using local funding
RSD 2021.3	Completed in 2026 plan update using local funding
RSD 2021.4	Completed in 2026 plan update using local funding
RSD 2021.6	Completed in 2026 plan update using local funding
RSD 2021.9	Completed in 2025 as required by state statue using local funds
RSD 2021.10	Completed in 2026 plan update using local funding
SHSD 2021.3	Completed in 2026 plan update using local funding
SHSD 2021.4	Completed in 2026 plan update using local funding

Deleted Actions	Reason for Deletion
County 2021.8	Not a county function
County 2021.12	Already included in other planning processes
County 2021.18	Hazard no longer included in plan
County 2021.19	Hazard no longer included in plan
County 2021.20	Hazard no longer included in plan
CB 2021.11	Hazard no longer included in plan
CB 2021.12	Hazard no longer included in plan
CB 2021.13	Hazard no longer included in plan
CB 2021.14	Unable to complete due to staffing concerns
CC 2021.6	Hazard no longer included in plan
CC 2021.10	Not a function of city government – fire department handles
VE 2021.6	No one to have any agreements with
VE 2021.9	Hazard no longer included in plan
GC 2021.9	Hazard no longer included in plan
GC 2021.10	Not a city function – fire department task
CNH 2021.7	Not a city function – handled by fire district
CNH 2021.11	Hazard no longer included in plan
NHSD 2021.6	Hazard no longer included in plan
SHSD 2021.6	Hazard no longer included in plan

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

Table 4.3. Summary of actions from 2021 plan

Status	Action from Previous Plan	
Continued	County 2021.1	County wide safe rooms and storm shelters
Continued	County 2021.2	Safety audit and self-inspection training for critical facilities
Continued/Modified	County 2021.3	Mitigation education
Continued	County 2021.4	Snow removal
Continued	County 2021.5	Public education for early warning systems
Continued	County 2021.6	County-wide disaster drills and exercises
Continued	County 2021.7	Structure grants for road and bridge upgrades
Removed	County 2021.8	Weather spotter training
Continued	County 2021.9	Critical facilities back-up
Continued	County 2021.10	Construction upgrades to protect infrastructure
Continued	County 2021.11	Debris removal
Removed	County 2021.12	Accessible contact information
Continued	County 2021.13	Mutual aid agreements
	County 2021.14	Public review of hazard mitigation plans
	County 2021.15	Plan reassessment
Continued	County 2021.16	Warning siren coverage
Continued	County 2021.17	Tree trimming maintenance
	County 2021.18	Pandemic personal protective equipment (ppe)
	County 2021.19	Pandemic response / disease prevention and management
	County 2021.20	Economic stabilization during pandemic
Continued	County 2021.21	Creation of a county-level municipality committee
Continued	CB 2021.1	Hazard education for those involved in land development
Continued	CB 2021.2	Weather alerts
Completed	CB 2021.3	Accessible contact information
Continued	CB 2021.4	Critical facilities back-up
Continued	CB 2021.5	Debris removal & regular brush clearing
Continued/Modified	CB 2021.6	Emergency preparedness education
Continued	CB 2021.7	Mutual aid agreements
Continued	CB 2021.8	Storm shelters/safe room
Continued	CB 2021.9	Weather spotter training
Completed	CB 2021.10	Representative for county hazard mitigation steering committee
Removed	CB 2021.11	Pandemic personal protective equipment (ppe)
Removed	CB 2021.12	Pandemic response / disease prevention and management
Removed	CB 2021.13	Economic stabilization during pandemic
Removed	CB 2021.14	Vulnerable population identification

Continued	CB 2021.15	Participation in nfip (national floodplain insurance program)
Complete	CC 2021.1	Accessible contact information
Continued	CC 2021.2	Critical facilities back-up
Continued	CC 2021.3	Debris removal & regular brush clearing
Continued/Modified	CC 2021.4	Mitigation education
Complete	CC 2021.5	Mutual aid agreements
Removed	CC 2021.6	Pandemic personal protective equipment (ppe)
Complete	CC 2021.7	Representative for county hazard mitigation steering committee
Continued	CC 2021.8	Storm shelter/safe room
Continued	CC 2021.9	Weather alerts
Removed	CC 2021.10	Weather spotter training
Continued	CC 2021.11	Vulnerable population identification
Continued	CC 2021.12	Participation in nfip (national floodplain insurance program)
Continued/Modified	VE 2021.1	Mitigation education
Complete	VE 2021.3	Accessible contact information
Continued	VE 2021.4	Critical facilities back-up
Continued	VE 2021.5	Debris removal & regular brush clearing
Removed	VE 2021.6	Mutual aid agreements
Continued	VE 2021.7	Storm shelter/safe room
Completed	VE 2021.8	Representative for county hazard mitigation steering committee
Removed	VE 2021.9	Pandemic personal protective equipment (ppe)
Continued	VE 2021.10	Vulnerable population identification
Continued/Modified	GC 2021.1	Mitigation education
Complete	GC 2021.3	Accessible contact information
Continued	GC 2021.4	Critical facilities back-up
Continued	GC 2020.5	Debris removal & regular brush clearing
Complete	GC 2021.6	Mutual aid agreements
Continued	GC 2021.7	Storm shelter/safe room
Complete	GC 2021.8	Representative for county hazard mitigation steering committee
Removed	GC 2021.9	Pandemic personal protective equipment (ppe)
Removed	GC 2021.10	Weather spotter training
Continued	GC 2021.11	Vulnerable population identification
Continued/Modified	CR 2021.1	Mitigation education
Continued/Modified	CNH 2021.1	Mitigation education
Continued	CNH 2021.2	Weather alerts
Complete	CNH 2021.3	Accessible contact information
Continued	CNH 2021.4	Critical facilities back-up
Continued	CNH 2021.5	Debris removal & regular brush clearing
Complete	CNH 2021.6	Mutual aid agreements
Removed	CNH 2021.7	Weather spotter training
Continued	CNH 2021.8	Storm shelter/safe room
Complete	CNH 2021.9	Representative for county hazard mitigation steering committee
Continued	CNH 2021.10	Vulnerable population identification
Removed	CNH 2021.11	Pandemic personal protective equipment (ppe)
Continued	CNH 2021.12	Participation in nfip (national floodplain insurance program)
Continued/Modified	NHSD 2021.1	Mitigation Education
Continued	NHSD 2021.2	Mutual aid agreements
Complete	NHSD 2021.3	Plan reassessment
Complete	NHSD 2021.4	Representative for county hazard mitigation steering committee
Continued	NHSD 2021.5	Storm shelters
Removed	NHSD 2021.6	Pandemic personal protective equipment (ppe)
Continued/Modified	RSD 2021.1	Mitigation education
Continued	RSD 2021.2	Mutual aid agreements
Complete	RSD 2021.3	Plan reassessment
Compete	RSD 2021.4	Representative for county hazard mitigation steering committee
Continued	RSD 2021.5	Storm shelters
Removed	RSD 2021.6	Pandemic personal protective equipment (ppe)
Continued	RSD 2021.7	Critical facilities back-up
Complete	RSD 2021.9	Emergency action and disaster plan
Complete	RSD 2021.10	Public participation and review of hazard mitigation plans
Continued/Modified	SHSD 2021.1	Mitigation education
Continued	SHSD 2021.2	Mutual aid agreements

Complete	SHSD 2021.3	Plan reassessment
Complete	SHSD 2021.4	Representative for county hazard mitigation steering committee
Continued	SHSD 2021.5	Storm shelters
Removed	SHSD 2021.6	Pandemic personal protective equipment (ppe)

4.3 Implementation of Mitigation Actions

Jurisdictional MPC members were encouraged to meet with others in their community to finalize the actions to be submitted for the updated mitigation strategy. Throughout the MPC consideration and discussion, emphasis was placed on the importance of a benefit-cost analysis in determining project priority. The Disaster Mitigation Act requires benefit-cost review as the primary method by which mitigation projects should be prioritized. The MPC decided to pursue implementation according to when and where damage occurs, available funding, political will, jurisdictional priority, and priorities identified in the 2023 Missouri State Hazard Mitigation Plan. The benefit/cost review at the planning stage primarily consisted of a qualitative analysis and was not the detailed process required grant funding application. For each action, the plan sets forth a narrative describing the types of benefits that could be realized from action implementation. The cost was estimated as closely as possible, with further refinement to be supplied as project development occurs.

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

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

The following questions were asked for each proposed action.

S: Is the action socially acceptable?
T: Is the action technically feasible and potentially successful?
A: Does the jurisdiction have the administrative capability to successfully implement this action?
P: Is the action politically acceptable?
L: Does the jurisdiction have the legal authority to implement the action?
E: Is the action economically beneficial?
E: Will the project have an environmental impact that is either beneficial or neutral? (score "3" if positive and "2" if neutral)

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

The final scores are listed below in the analysis of each action. The worksheets are attached to this plan as Appendix __. 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

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 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	
STAPLEE 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 potentially successful?		
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		
P: Is it **Politically** acceptable?		
L: Is there **Legal** authority to implement?		
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) _____

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.

4.4 Harrison County Actions for 2025

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Lack of readily available, organized and useful information on available shelters and safe rooms.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	County 2025.1
Name of Action or Project:	**County-wide inventory of emergency shelters and safe rooms**
Mitigation Category:	Emergency Services
Action or Project Description:	To mitigate future losses the county will integrate a program that will identify current shelters, locating gaps in coverage and capacity and develop plans for securing more shelter capacity in areas currently unserved, or underserved by existing shelters.
Estimated Cost:	$0
Benefits:	This could establish an inventory from which the County can work to identify its comprehensive needs for shelter throughout its jurisdictions.
Plan for Implementation	
Responsible Organization/Department:	County Emergency Management,
Supporting Organization/Department:	City governments and school districts
Action/Project Priority:	High
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	Emergency management
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**Harrison County**

Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Lack of education at critical facilities on preparation for hazard impacts and mitigation.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	County 2025.2
Name of Action or Project:	**Safety audit and self-inspection and training for critical facilities**
Mitigation Category:	Education and outreach
Action or Project Description:	1. Emergency Management will arrange for training on *safety audits and hazard mitigation* for facilities using federal and state training resources and grant funding. 2. Emergency Management will provide opportunities for training to administrators and employees of critical facilities *to develop self-inspection processes* to ensure that the building infrastructure is earthquake, flood and tornado resistant. 3. Emergency services will engage local government, utility and response agency experts to participate in this process and build rapport between agencies.
Estimated Cost:	$500
Benefits:	Low cost. Increased collaboration between agencies for natural disaster planning and education. Ongoing preparation through regular self-inspection and audits by critical facilities.
Plan for Implementation	
Responsible Organization/Department:	Harrison County EMD
Supporting Organization/Department:	SEMA/FEMA, Red Cross
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On going on a yearly basis

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire

Problem being Mitigated:	Lack of public knowledge about natural disasters.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	County 2025.3
Name of Action or Project:	**Public mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide education, information and resources related to all natural disasters to the public on how to reduce risk and long term losses from natural hazards.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of natural disasters and how to prepare for natural disasters potentially affecting Harrison County.
Plan for Implementation	
Responsible Organization/Department:	Harrison County Emergency Management
Supporting Organization/Department:	FEMA, SEMA, NWS, USGS
Action/Project Priority:	Medium
Timeline for Completion:	1-5 years
Potential Fund Sources:	NA
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued/Modified
Report of Progress:	Will continue to conduct mitigation education yearly

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Winter Weather
Problem being Mitigated:	The electrical grid and transportation system are most affected by severe winter weather, including heavy amounts of snow.
Action or Project	
Applicable Goal Statement:	Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather
Action/Project Number:	County 2025.4
Name of Action or Project:	**Snow removal**
Mitigation Category:	Structure and infrastructure
Action or Project Description:	We will work with various partner agencies to develop plans and procedures to reduce risks from severe winter weather by ensuring access to critical facilities are maintained and securing needed equipment is acquired.
Estimated Cost:	$1,000 - $5,000
Benefits:	More efficient snow removal to reduce risk of traffic accidents and to provide easy transport by utilities to address electrical issues affected by winter storms.
Plan for Implementation	
Responsible Organization/Department:	Harrison County Officials
Supporting Organization/Department:	County Maintenance Crews, Utility Crews
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	General Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Completed as needed to ensure public safety

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Inadequacies and gaps in the public awareness of the early warning systems
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather
Action/Project Number:	County 2025.5
Name of Action or Project:	**Public education event for early warning systems**
Mitigation Category:	Education and Outreach
Action or Project Description:	This standalone event will include: • Guest speaker(s) – meteorologist(s), storm chaser(s), Red Cross disaster expert(s) • Information on weather radios (with cost-effective models on display) • High school volunteers who can assist older, less savvy attendees to download and install warning apps on their smart phones
Estimated Cost:	$1,000
Benefits:	Ensures the public is aware of what systems are in place allowing them to take action in a timelier fashion therefore reducing the risks to life and property
Plan for Implementation	
Responsible Organization/Department:	Harrison County Emergency Management
Supporting Organization/Department:	School Districts, Fire Departments
Action/Project Priority:	Medium
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	Emergency management, General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On going on an annual basis

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Efficiency, Timing, and Effectiveness of Warning, Response, and Recovery Efforts
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	County 2025.6
Name of Action or Project:	**County-wide disaster drills and exercises**
Mitigation Category:	Emergency Services
Action or Project Description:	1. Emergency Management will coordinate with local response agencies and facilities to plan and execute tabletop and full-scale exercise to address above goal. 2. They will design and implement county-wide drills involving agencies, public and private entities, including schools, businesses and nursing facilities. 3. They will publicize county-wide or city-wide drills.
Estimated Cost:	$1000
Benefits:	Identify gaps in personal, operations, training and exercise that increase losses of life and property and fill the identified gaps to reduce the long term risks.
Plan for Implementation	
Responsible Organization/Department:	Harrison County Emergency Management
Supporting Organization/Department:	Police, Fire, EMS, Businesses and Schools, Nursing Facilities
Action/Project Priority:	Medium
Timeline for Completion:	1-5 years
Potential Fund Sources:	Emergency Management Grant Funding
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Conducted last exercise in 2025

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Emergency response is affected by problematic transportation routes, improving infrastructure will mitigate damage caused by natural disasters and improve emergency response times, mitigating loss of life.
Action or Project	
Applicable Goal Statement:	Goal 2: Minimize property damage due to flooding, levee failure or dam incidents.
Action/Project Number:	County 2025.7
Name of Action or Project:	**Structure grants for road and bridge upgrades**
Mitigation Category:	Structure and Infrastructure projects
Action or Project Description:	• Structure grant proposals for road/bridge upgrades so that hazard mitigation concerns are also met, and address mitigation needs in transportation planning via the local Transportation Advisory Committee and its needs assessments, which form the basis of MoDOT's 5-year plans. • The County Commission shall present local transportation concerns to the regional transportation advisory committee, where they can be incorporated into MoDOT's planning structure. The County and City will also seek CDBG and MoDOT grant funding to address specific issues as they are discovered.
Estimated Cost:	$0
Benefits:	The cost of participating in planning and applying for grant funds is considered to be minimal compared to the potential benefits.
Plan for Implementation	
Responsible Organization/Department:	County Commissioners
Supporting Organization/Department:	MoDOT; CDBG
Action/Project Priority:	High
Timeline for Completion:	2025
Potential Fund Sources:	MoDOT; CDBG
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**Harrison county**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado
Problem being Mitigated:	Facilites with auxiliary power supplies should be available to residents affected by power outages.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	County 2025.8
Name of Action or Project:	**Critical facilities back-up**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Assist critical facilities to identify gaps in backup communications and power systems that lead to a loss of continuity of operations.
Estimated Cost:	$5,000
Benefits:	Critical facilities, such as shelters, can continue to operate in the event of a disaster, reducing risks to life and property.
Plan for Implementation	
Responsible Organization/Department:	County Commission, County EMD
Supporting Organization/Department:	
Action/Project Priority:	HIGH
Timeline for Completion:	1 year
Potential Fund Sources:	General Revenue, Capital projects, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Earthquake, Flooding, Dam Failure
Problem being Mitigated:	Significant infrastructure damage occurs in floodplains protected by dam.
Action or Project	
Applicable Goal Statement:	Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	County 2025.9
Name of Action or Project:	**Construction upgrades to protect infrastructure**
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	In situations in which flood waters tend to wash out roads, construct, reconstruct or repair 1. roads, 2. culverts/tubes 3. soil stabilization 4. vulnerable shoulders or embankments.
Estimated Cost:	$2,000,000
Benefits:	Construction upgrades will improve the integrity of the Harrison County infrastructure in a hazard event.
Plan for Implementation	
Responsible Organization/Department:	Harrison County Highway Department (Road and Bridge)
Supporting Organization/Department:	Harrison County Commission
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	HMGP, Capital projects budget, Transportation budget, CDBG
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	New
Report of Progress:	New Project

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Earthquakes, Severe thunderstorms, Severe winter weather, Tornado
Problem being Mitigated:	Transportation routes can be disrupted by debris caused by natural disasters.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	County 2025.10
Name of Action or Project:	**Debris removal**
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	Mitigate the risk to life and property by ensuring that debris does not interfere with draining systems thus increasing the risk for losses due to flooding.
Estimated Cost:	$500,000
Benefits:	Frequent removal of debris will help clear roadways and drainage systems. Reducing the likelihood of future flooding events..
Plan for Implementation	
Responsible Organization/Department:	Road and Bridge Department, EMD
Supporting Organization/Department:	
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	Transportation budget, FEMA Recovery funds, Emergency budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On going as needed

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	It is necessary to maintain and update Mutual Aid Agreements for swift response to provide support during a natural disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	County 2025.11
Name of Action or Project:	**Mutual aid agreements**
Mitigation Category:	Emergency Services
Action or Project Description:	Execute and maintain mutual aid agreements with all relevant agencies.
Estimated Cost:	$500
Benefits:	Mutual aid agreements reduce risk to life and property by filling identified gaps that often lead to increased losses of life and property and ensuring the continued operations of critical community life-lines.
Plan for Implementation	
Responsible Organization/Department:	Harrison County EMD
Supporting Organization/Department:	County Commission, Fire Departments and Ambulance District
Action/Project Priority:	HIGH
Timeline for Completion:	1 year
Potential Fund Sources:	General revenue budget
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP
Progress Report	
Action Status:	Continued
Report of Progress:	Reviewed as needed

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe thunderstorm, Tornado
Problem being Mitigated:	Early Warning Sirens
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	County 2025.12
Name of Action or Project:	**Warning siren coverage**
Mitigation Category:	Structure and Infrastructure Projects, Emergency Services
Action or Project Description:	Installation of early warning sirens
Estimated Cost:	$500,000
Benefits:	With adequate time for warning of storms, residents are able to seek cover to help minimize the loss of life.
Plan for Implementation	
Responsible Organization/Department:	County EMD
Supporting Organization/Department:	County Commission
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	Hazard Mitigation Grant Funds, Capital projects
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe thunderstorms, Severe winter weather, Tornado
Problem being Mitigated:	The electrical grid and transportation system are most affected by severe weather and reduce the risk of wildfire.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather
Action/Project Number:	County 2025.13
Name of Action or Project:	**Tree trimming maintenance**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Prioritize tree trimming and maintenance along utility lines.
Estimated Cost:	$5,000
Benefits:	Frequent maintenance of trees will help keep access clear along roadways and electrical lines. Reducing the risk for damage to critical life lines in the event of severe weather.
Plan for Implementation	
Responsible Organization/Department:	County Officials
Supporting Organization/Department:	County Maintenance Crews
Action/Project Priority:	Low
Timeline for Completion:	1-5 years
Potential Fund Sources:	Transportation budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	As needed

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Lack of an ongoing county-wide committee to coordinate emergency preparedness and hazard mitigation planning with active representatives from each jurisdiction in the County.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	County 2025.14
Name of Action or Project:	**Creation of a county-level municipality steering committee**
Mitigation Category:	Education and Outreach
Action or Project Description:	This Steering Committee will meet quarterly to assist the County to: 1. Forecast County emergency preparedness needs for: a. Protection of Life, Health and Safety b. Protection of Continuity of Government and Essential Services c. Protection of Public and Private Property, and d. Protection of Community Tranquility. 2. Inform County officials of potential problematic areas. 3. Educate the public on emergency preparedness and hazard mitigation. 4. Review existing planning documents during annual review. 5. Identify funding sources and partner agencies for emergency preparedness and mitigation projects.
Estimated Cost:	$0
Benefits:	A regular meeting of municipal agencies will allow for better knowledge of capacity and gaps, allowing the county to quickly work to reduce these gaps lowering the risks for life and property..
Plan for Implementation	
Responsible Organization/Department:	County Commission, County EMD
Supporting Organization/Department:	Hazard Mitigation Planning Committees
Action/Project Priority:	Medium
Timeline for Completion:	5 years
Potential Fund Sources:	NA
Local Planning Mechanisms to be Used in Implementation, if any:	None
Progress Report	
Action Status:	New
Report of Progress:	New Project

Action Worksheet	
Name of Jurisdiction:	**Harrison County**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Lack of an ongoing county-wide committee to coordinate emergency preparedness and hazard mitigation planning with active representatives from each jurisdiction in the County.
Action or Project	
Applicable Goal Statement:	Goal 2: Minimize property damage due to flooding, levee failure or dam incidents.
Action/Project Number:	County 2025.15
Name of Action or Project:	**Upgrade or replace culverts and drainage systems**
Mitigation Category:	Structure and infrastructure
Action or Project Description:	Upgrade, resize, or replace culverts and other drainage systems that are prone to being overwhelmed during a heavy rainfall event leading to flooding
Estimated Cost:	$250,000
Benefits:	The County will save on the long term cost of fixing washouts and road damage from underperforming tubes and culverts
Plan for Implementation	
Responsible Organization/Department:	County Commission
Supporting Organization/Department:	Hazard Mitigation Planning Committees
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, Transportation budget, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	None
Progress Report	
Action Status:	New
Report of Progress:	New Project

Action Worksheet	
Name of Jurisdiction:	**City of Bethany**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Development in hazard prone areas.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CB 2025.1
Name of Action or Project:	**Hazard education for those involved in land development**
Mitigation Category:	Education and Outreach
Action or Project Description:	• Publicize the availability of hazard information to real estate agents, buildings, developers and homeowners. • Give financial institutions, real estate professionals, developers and homeowners the tools they need to determine how to protect their property from the negative impacts of hazards in the county. • Post notices at the County Courthouse, City Halls, and on government web sites and Facebook.
Estimated Cost:	$1,000
Benefits:	Low cost. Easy implementation to post notices about available information.
Plan for Implementation	
Responsible Organization/Department:	City Council
Supporting Organization/Department:	County Commission, County EMD
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-goinmg

Action Worksheet	
Name of Jurisdiction:	**City of Bethany**
Risk / Vulnerability	
Hazard(s) Addressed:	, Flooding, Dam failure, Extreme temperatures, Severe Thunderstorm, Severe Winter Weather, Tornadoes, Wildfires
Problem being Mitigated:	All citizens should have sufficient access to advance and emergency weather information in times of severe weather.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather
Action/Project Number:	CB 2025.2
Name of Action or Project:	**Weather alerts**
Mitigation Category:	Education and outreach
Action or Project Description:	Maintain or expand as needed or able, the distribution methods of severe weather alerts to the general public. Local governments should encourage residents to purchase weather radios or receive mobile phone alerts to ensure that everyone has sufficient access to information in times of severe weather.
Estimated Cost:	$1,000
Benefits:	Reach more residents during severe weather, increasing potential to save lives and property.
Plan for Implementation	
Responsible Organization/Department:	City Officials
Supporting Organization/Department:	County EMD, Fire Department
Action/Project Priority:	High
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Bethany**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Shelters with auxiliary power supplies should be available to residents affected by power outages
Action or Project	
Applicable Goal Statement:	Goal 1: To respond to the issues highlighted in the hazard risk and vulnerability sections of the plan. Goal 3: Protect the lives, property and livelihoods of all citizens by evaluating and implementing optimal mitigation alternatives. Goal 4: To ensure continued operation of government and emergency functions in a disaster.
Action/Project Number:	CB 2025.3
Name of Action or Project:	**Critical facilities back-up**
Mitigation Category:	Emergency Services
Action or Project Description:	Assist critical facilities to identify gaps in backup communications and power systems that lead to a loss of continuity of operations.
Estimated Cost:	$5,000
Benefits:	Critical facilities, such as shelters, can continue to operate in the event of a disaster, reducing risks to life and property.
Plan for Implementation	
Responsible Organization/Department:	Mayor/City Council, Local Emergency Coordinator
Supporting Organization/Department:	LEPC, County EMD, Neighboring Counties/Agencies with Mutual Aid Agreements
Action/Project Priority:	HIGH
Timeline for Completion:	1-5 years
Potential Fund Sources:	HMGP, Capital projects budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**City of Bethany**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Earthquakes, Severe thunderstorms, Severe winter weather, Tornado
Problem being Mitigated:	Transportation routes can be disrupted by debris caused by natural disasters.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CB 2025.4
Name of Action or Project:	**Debris removal & regular brush clearing**
Mitigation Category:	Structure and Infrastructure Projects
Action or Project Description:	Mitigate the risk to life and property by ensuring that debris does not interfere with draining systems thus increasing the risk for losses due to flooding.
Estimated Cost:	$500,000
Benefits:	Frequent removal of debris will help clear roadways and drainage systems. Reducing the likelihood of future flooding events..
Plan for Implementation	
Responsible Organization/Department:	City Road and Bridge Department
Supporting Organization/Department:	County Road and Bridge Department, EMD
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	Transportation budget, FEMA Recovery
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going as needed

Action Worksheet	
Name of Jurisdiction:	**City of Bethany**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of City of Bethany.
Action or Project	
Applicable Goal Statement:	Goal 1: To respond to the issues highlighted in the hazard risk and vulnerability sections of the Plan. Goal 3: Protect the lives, livelihoods and property of all citizens by evaluating and implementing optimal mitigation alternatives
Action/Project Number:	CB 2025.5
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide mitigation education, information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting the community.
Plan for Implementation	
Responsible Organization/Department:	Mayor, Aldermen
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1-5 years
Potential Fund Sources:	Emergency management budget, General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued/Modified
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Bethany**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	In the event of a natural disaster, prior preparation through execution and maintenance of Mutual Aid agreements is necessary for an appropriate disaster response.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CB 2025.6
Name of Action or Project:	**Mutual aid agreements**
Mitigation Category:	Emergency Services
Action or Project Description:	Execute and maintain mutual aid agreements with all relevant agencies.
Estimated Cost:	$500
Benefits:	Mutual aid agreements reduce risk to life and property by filling identified gaps that often lead to increased losses of life and property and ensuring the continued operations of critical community life-lines.
Plan for Implementation	
Responsible Organization/Department:	City of Bethany
Supporting Organization/Department:	Harrison County EMD, Fire District, Ambulance District
Action/Project Priority:	HIGH
Timeline for Completion:	1 year
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Bethany**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornados
Problem being Mitigated:	FEMA-approved storm shelters have proven effective in mitigating the loss of property and life during tornados. A community-wide shelter program should be adopted for residents who may not have adequate shelter in their homes to minimize the potential for loss of life. School safe rooms can protect students from injury during a thunderstorm, tornado or natural wind event/disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	CB 2025.7
Name of Action or Project:	**Storm shelters/safe room**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install storm shelters in locations with insufficient protection including, but not limited to, schools, local recreation areas, and public facilities.
Estimated Cost:	$2M
Benefits:	Storm shelters can protect the lives of individuals in a thunderstorm, tornado or hazardous wind event who may not have other options for sufficient shelter.
Plan for Implementation	
Responsible Organization/Department:	City Council
Supporting Organization/Department:	County Commissioners, Local Police Departments, GHRPC, County EMD
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	HMGP, Capital projects budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**City of Bethany**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms and Tornados
Problem being Mitigated:	Early warning of wind hazards, including severe thunderstorms and tornados, can reduce the number of residents at risk of injury or death.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	CB 2021.8
Name of Action or Project:	**Weather spotter training**
Mitigation Category:	Education and Outreach
Action or Project Description:	Make weather spotter training courses available for interested local citizens at local fire and police departments.
Estimated Cost:	$500
Benefits:	Increased awareness of and reporting of severe weather leads to increased action by the public reducing the losses of lives and property.
Plan for Implementation	
Responsible Organization/Department:	City Officials
Supporting Organization/Department:	Police Departments, County EMD, National Weather Service SKYWARN Storm Spotters Educators, Local Fire District
Action/Project Priority:	High
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Bethany**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Unregulated development in the floodplains
Action or Project	
Applicable Goal Statement:	Goal 2: Minimize property damage due to flooding, levee failure or dam incidents.
Action/Project Number:	CB 2025.9
Name of Action or Project:	**PARTICIPATION IN NFIP (National Floodplain Insurance Program)**
Mitigation Category:	Planning and Regulation
Action or Project Description:	City will continue participation in NFIP, re-evaluate and continue enforcement of ordinances and regulations, and continue to work with the floodplain manager.
Estimated Cost:	$100/Yearly
Benefits:	Protection of structures insured through NFIP.
Plan for Implementation	
Responsible Organization/Department:	City Floodplain Manager
Supporting Organization/Department:	Local Emergency Coordinator, SEMA, County EMD
Action/Project Priority:	Medium
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	Floodplain Ordinance
Progress Report	
Action Status:	Continued
Report of Progress:	Continue, in progress

Action Worksheet	
Name of Jurisdiction:	**Village of Blythdale**
Risk / Vulnerability	
Hazard(s) Addressed:	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado
Problem being Mitigated:	Critical facilities, including shelters, with auxiliary power supplies should be available to residents affected by power outages.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	VB 2025.1
Name of Action or Project:	**Critical facilities back-up**
Mitigation Category:	Structure and infastructure
Action or Project Description:	Assist critical facilities to identify gaps in backup communications and power systems that lead to a loss of continuity of operations.
Estimated Cost:	$5,000
Benefits:	Critical facilities, such as shelters, can continue to operate in the event of a disaster, reducing risks to life and property.
Plan for Implementation	
Responsible Organization/Department:	Mayor/City Council, Local Emergency Coordinator
Supporting Organization/Department:	County EMD, Neighboring Counties/Agencies with Mutual Aid Agreements
Action/Project Priority:	HIGH
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	HMGP, Capital projects budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	New
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**Village of Blythdale**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado
Problem being Mitigated:	Transportation routes can be disrupted by debris caused by natural disasters.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	VB 2025.2
Name of Action or Project:	**Debris removal & regular brush clearing**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Mitigate the risk to life and property by ensuring that debris does not interfere with draining systems thus increasing the risk for losses due to flooding.
Estimated Cost:	$500,000
Benefits:	Frequent removal of debris will help clear roadways and drainage systems. Reducing the likelihood of future flooding events..
Plan for Implementation	
Responsible Organization/Department:	City Road and Bridge Department
Supporting Organization/Department:	County Road and Bridge Dept, EMD
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	HMGP, FEMA Recovery, Transportation budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	New
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**Village of Blythdale**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of Cainsville.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	VB 2025.3
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide mitigation education, information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting the community.
Plan for Implementation	
Responsible Organization/Department:	Mayor, Aldermen
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1 - 5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	New
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**Village of Blythdale**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornado
Problem being Mitigated:	FEMA-approved storm shelters have proven effective in mitigating the loss of property and life during tornados. A community-wide shelter program should be adopted for residents who may not have adequate shelter in their homes to minimize the potential for loss of life. School safe rooms can protect students from injury during a thunderstorm, tornado or natural wind event/disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	VB 2025.4
Name of Action or Project:	**Storm shelter/safe room**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install storm shelters in locations with insufficient protection including, but not limited to, schools, local recreation areas, and public facilities.
Estimated Cost:	$2M
Benefits:	Storm shelters can protect the lives of individuals in a thunderstorm, tornado or hazardous wind event who may not have other options for sufficient shelter.
Plan for Implementation	
Responsible Organization/Department:	City Council
Supporting Organization/Department:	County Commissioners, Local Police Departments, GHRPC, County EMD
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	New
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**Village of Blythdale**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Extreme Temperatures, Severe Thunderstorm, Severe Winter Weather, Tornado
Problem being Mitigated:	All citizens should have sufficient access to advance and emergency weather information in times of severe weather.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather
Action/Project Number:	VB 2025.5
Name of Action or Project:	**Weather alerts**
Mitigation Category:	Education and outreach
Action or Project Description:	Maintain or expand as needed or able, the distribution methods of severe weather alerts to the public. Local governments should encourage residents to purchase weather radios or receive mobile phone alerts to ensure that everyone has sufficient access to information in times of severe weather.
Estimated Cost:	$1,000
Benefits:	Reach more residents during severe weather, increasing potential to save lives and property.
Plan for Implementation	
Responsible Organization/Department:	City Officials
Supporting Organization/Department:	County EMD, Fire Departments
Action/Project Priority:	High
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	New
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**Village of Blythdale**
Risk / Vulnerability	
Hazard(s) Addressed:	Extreme Temperatures
Problem being Mitigated:	Extreme temperatures (severe heat and severe cold) present hardship and high risk for injury or death to county citizens, especially the very young and old.
Action or Project	
Applicable Goal Statement:	Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire
Action/Project Number:	VB 2025.6
Name of Action or Project:	**Vulnerable population identification**
Mitigation Category:	Emergency Services
Action or Project Description:	Identify and maintain list of local vulnerable populations that are the most susceptible to extreme heat and cold to ensure that local public safety officials confirm their well-being during episodes of extreme temperature, reducing the risk of loss of life due to hazardous conditions and natural hazards.
Estimated Cost:	$500
Benefits:	Lives could be saved through identification of vulnerable populations for well-being checks during natural hazards.
Plan for Implementation	
Responsible Organization/Department:	City of Cainsville, Police Department
Supporting Organization/Department:	County EMD, County Health Department, Coordination with Senior Centers, DHHS, local doctor's offices, County Sheriff's Department, Fire District, Ambulance District
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	New
Report of Progress:	Limited progress

Action Worksheet	
Name of Jurisdiction:	**Village of Blythdale**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Unregulated development in the floodplains
Action or Project	
Applicable Goal Statement:	Goal 2: Minimize property damage due to flooding, levee failure or dam incidents.
Action/Project Number:	VB 2025.7
Name of Action or Project:	**PARTICIPATION IN NFIP (National Floodplain Insurance Program)**
Mitigation Category:	Planning and regulation
Action or Project Description:	City will continue participation in NFIP, re-evaluate and continue enforcement of ordinances and regulations, and continue to work with the floodplain manager.
Estimated Cost:	None
Benefits:	Protection of structures insured through NFIP.
Plan for Implementation	
Responsible Organization/Department:	City Floodplain Manager
Supporting Organization/Department:	Local Emergency Coordinator, SEMA, County EMD
Action/Project Priority:	Medium
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	Floodplain Ordinance
Progress Report	
Action Status:	New
Report of Progress:	In progress

Action Worksheet	
Name of Jurisdiction:	**City of Cainsville**
Risk / Vulnerability	
Hazard(s) Addressed:	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado
Problem being Mitigated:	Critical facilities, including shelters, with auxiliary power supplies should be available to residents affected by power outages.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CC 2025.1
Name of Action or Project:	**Critical facilities back-up**
Mitigation Category:	Structure and infastructure
Action or Project Description:	Assist critical facilities to identify gaps in backup communications and power systems that lead to a loss of continuity of operations.
Estimated Cost:	$5,000
Benefits:	Critical facilities, such as shelters, can continue to operate in the event of a disaster, reducing risks to life and property.
Plan for Implementation	
Responsible Organization/Department:	Mayor/City Council, Local Emergency Coordinator
Supporting Organization/Department:	County EMD, Neighboring Counties/Agencies with Mutual Aid Agreements
Action/Project Priority:	HIGH
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	HMGP, Capital projects budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Cainsville**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado
Problem being Mitigated:	Transportation routes can be disrupted by debris caused by natural disasters.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CC 2025.2
Name of Action or Project:	**Debris removal & regular brush clearing**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Mitigate the risk to life and property by ensuring that debris does not interfere with draining systems thus increasing the risk for losses due to flooding.
Estimated Cost:	$500,000
Benefits:	Frequent removal of debris will help clear roadways and drainage systems. Reducing the likelihood of future flooding events..
Plan for Implementation	
Responsible Organization/Department:	City Road and Bridge Department
Supporting Organization/Department:	County Road and Bridge Dept, EMD
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	HMGP, FEMA Recovery, Transportation budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Cainsville**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of Cainsville.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CC 2025.3
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide mitigation education, information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting the community.
Plan for Implementation	
Responsible Organization/Department:	Mayor, Aldermen
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1 - 5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued/Modified
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Cainsville**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornado
Problem being Mitigated:	FEMA-approved storm shelters have proven effective in mitigating the loss of property and life during tornados. A community-wide shelter program should be adopted for residents who may not have adequate shelter in their homes to minimize the potential for loss of life. School safe rooms can protect students from injury during a thunderstorm, tornado or natural wind event/disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	CC 2025.4
Name of Action or Project:	**Storm shelter/safe room**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install storm shelters in locations with insufficient protection including, but not limited to, schools, local recreation areas, and public facilities.
Estimated Cost:	$2M
Benefits:	Storm shelters can protect the lives of individuals in a thunderstorm, tornado or hazardous wind event who may not have other options for sufficient shelter.
Plan for Implementation	
Responsible Organization/Department:	City Council
Supporting Organization/Department:	County Commissioners, Local Police Departments, GHRPC, County EMD
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**City of Cainsville**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Extreme Temperatures, Severe Thunderstorm, Severe Winter Weather, Tornado
Problem being Mitigated:	All citizens should have sufficient access to advance and emergency weather information in times of severe weather.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather
Action/Project Number:	CC – 2025.5
Name of Action or Project:	**Weather alerts**
Mitigation Category:	Education and outreach
Action or Project Description:	Maintain or expand as needed or able, the distribution methods of severe weather alerts to the general public. Local governments should encourage residents to purchase weather radios or receive mobile phone alerts to ensure that everyone has sufficient access to information in times of severe weather.
Estimated Cost:	$1,000
Benefits:	Reach more residents during severe weather, increasing potential to save lives and property.
Plan for Implementation	
Responsible Organization/Department:	City Officials
Supporting Organization/Department:	County EMD, Fire Departments
Action/Project Priority:	High
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Cainsville**
Risk / Vulnerability	
Hazard(s) Addressed:	Extreme Temperatures
Problem being Mitigated:	Extreme temperatures (severe heat and severe cold) present hardship and high risk for injury or death to county citizens, especially the very young and old.
Action or Project	
Applicable Goal Statement:	Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire
Action/Project Number:	CC 2025.6
Name of Action or Project:	**Vulnerable population identification**
Mitigation Category:	Emergency Services
Action or Project Description:	Identify and maintain list of local vulnerable populations that are the most susceptible to extreme heat and cold to ensure that local public safety officials confirm their well-being during episodes of extreme temperature, reducing the risk of loss of life due to hazardous conditions and natural hazards.
Estimated Cost:	$500
Benefits:	Lives could be saved through identification of vulnerable populations for well-being checks during natural hazards.
Plan for Implementation	
Responsible Organization/Department:	City of Cainsville, Police Department
Supporting Organization/Department:	County EMD, County Health Department, Coordination with Senior Centers, DHHS, local doctor's offices, County Sheriff's Department, Fire District, Ambulance District
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continued
Report of Progress:	Limited progress

Action Worksheet	
Name of Jurisdiction:	**City of Cainsville**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Unregulated development in the floodplains
Action or Project	
Applicable Goal Statement:	Goal 2: Minimize property damage due to flooding, levee failure or dam incidents.
Action/Project Number:	CC 2025.7
Name of Action or Project:	**PARTICIPATION IN NFIP (National Floodplain Insurance Program)**
Mitigation Category:	Planning and regulation
Action or Project Description:	City will continue participation in NFIP, re-evaluate and continue enforcement of ordinances and regulations, and continue to work with the floodplain manager.
Estimated Cost:	None
Benefits:	Protection of structures insured through NFIP.
Plan for Implementation	
Responsible Organization/Department:	City Floodplain Manager
Supporting Organization/Department:	Local Emergency Coordinator, SEMA, County EMD
Action/Project Priority:	Medium
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	Floodplain Ordinance
Progress Report	
Action Status:	Continued
Report of Progress:	In progress

Action Worksheet	
Name of Jurisdiction:	**Village of Eagleville**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of Eagleville.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	VE 2025.1
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide mitigation education, information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting the community.
Plan for Implementation	
Responsible Organization/Department:	Chairman and Trustees
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1 - 5 years
Potential Fund Sources:	Local
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued/Modified
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**Village of Eagleville**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Extreme Temperatures, Severe Thunderstorm, Severe Winter Weather, Tornado
Problem being Mitigated:	All citizens should have sufficient access to advance and emergency weather information in times of severe weather.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather
Action/Project Number:	VE 2025.2
Name of Action or Project:	**Weather alerts**
Mitigation Category:	Education and outreach
Action or Project Description:	Maintain or expand as needed or able, the distribution methods of severe weather alerts to the general public. Local governments should encourage residents to purchase weather radios or receive mobile phone alerts to ensure that everyone has sufficient access to information in times of severe weather.
Estimated Cost:	$1,000
Benefits:	Reach more residents during severe weather, increasing potential to save lives and property.
Plan for Implementation	
Responsible Organization/Department:	Village Officials
Supporting Organization/Department:	County EMD, Fire Departments
Action/Project Priority:	High
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**Village of Eagleville**
Risk / Vulnerability	
Hazard(s) Addressed:	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado
Problem being Mitigated:	Critical facilities, including shelters, with auxiliary power supplies should be available to residents affected by power outages.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	VE 2025.3
Name of Action or Project:	**Critical facilities back-up**
Mitigation Category:	Structure and infrastructure
Action or Project Description:	Assist critical facilities to identify gaps in backup communications and power systems that lead to a loss of continuity of operations.
Estimated Cost:	$5,000
Benefits:	Critical facilities, such as shelters, can continue to operate in the event of a disaster, reducing risks to life and property.
Plan for Implementation	
Responsible Organization/Department:	Mayor, Local Emergency Coordinator
Supporting Organization/Department:	County EMD, Neighboring Counties/Agencies with Mutual Aid Agreements
Action/Project Priority:	HIGH
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	HMGP, Capital projects budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**Village of Eagleville**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado
Problem being Mitigated:	Transportation routes can be disrupted by debris caused by natural disasters.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	VE 2025.4
Name of Action or Project:	**Debris removal & regular brush clearing**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Mitigate the risk to life and property by ensuring that debris does not interfere with draining systems thus increasing the risk for losses due to flooding.
Estimated Cost:	$500,000
Benefits:	Frequent removal of debris will help clear roadways and drainage systems. Reducing the likelihood of future flooding events..
Plan for Implementation	
Responsible Organization/Department:	Road and Bridge Department
Supporting Organization/Department:	County Road and Bridge Dept, EMD
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	HMGP, FEMA Recovery, Transportation budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**Village of Eagleville**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornado
Problem being Mitigated:	FEMA-approved storm shelters have proven effective in mitigating the loss of property and life during tornados. A community-wide shelter program should be adopted for residents who may not have adequate shelter in their homes to minimize the potential for loss of life. School safe rooms can protect students from injury during a thunderstorm, tornado or natural wind event/disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	VE 2025.5
Name of Action or Project:	**Storm shelter/safe room**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install storm shelters in locations with insufficient protection including, but not limited to, schools, local recreation areas, and public facilities.
Estimated Cost:	$2M
Benefits:	Storm shelters can protect the lives of individuals in a thunderstorm, tornado or hazardous wind event who may not have other options for sufficient shelter.
Plan for Implementation	
Responsible Organization/Department:	Village officials
Supporting Organization/Department:	County Commissioners, Local Police Departments, GHRPC, County EMD
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**Village of Eagleville**
Risk / Vulnerability	
Hazard(s) Addressed:	Extreme Temperatures
Problem being Mitigated:	Extreme temperatures (severe heat and severe cold) present hardship and high risk for injury or death to county citizens, especially the very young and old.
Action or Project	
Applicable Goal Statement:	Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire
Action/Project Number:	VE 2025.6
Name of Action or Project:	**Vulnerable population identification**
Mitigation Category:	Emergency Services
Action or Project Description:	Identify and maintain list of local vulnerable populations that are the most susceptible to extreme heat and cold to ensure that local public safety officials confirm their well-being during episodes of extreme temperature, reducing the risk of loss of life due to hazardous conditions and natural hazards.
Estimated Cost:	$500
Benefits:	Lives could be saved through identification of vulnerable populations for well-being checks during natural hazards.
Plan for Implementation	
Responsible Organization/Department:	Village board
Supporting Organization/Department:	County EMD, County Health Department, Coordination with Senior Centers, DHHS, local doctor's offices, County Sheriff's Department, Fire District, Ambulance District
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continued
Report of Progress:	Limited progress

Action Worksheet	
Name of Jurisdiction:	**City of Gilman City**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of Eagleville.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	GC – 2025.1
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide mitigation education, information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting the community.
Plan for Implementation	
Responsible Organization/Department:	City council, Mayor
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1 - 5 years
Potential Fund Sources:	General Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued/Modified
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Gilman City**
Risk / Vulnerability	
Hazard(s) Addressed:	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado
Problem being Mitigated:	Critical facilities, including shelters, with auxiliary power supplies should be available to residents affected by power outages.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	GC 2025.2
Name of Action or Project:	**Critical facilities back-up**
Mitigation Category:	Structure and infrastructure
Action or Project Description:	Assist critical facilities to identify gaps in backup communications and power systems that lead to a loss of continuity of operations.
Estimated Cost:	$5,000
Benefits:	Critical facilities, such as shelters, can continue to operate in the event of a disaster, reducing risks to life and property.
Plan for Implementation	
Responsible Organization/Department:	Mayor, Local Emergency Coordinator
Supporting Organization/Department:	County EMD, Neighboring Counties/Agencies with Mutual Aid Agreements
Action/Project Priority:	HIGH
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	HMGP, Capital projects budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**City of Gilman City**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado
Problem being Mitigated:	Transportation routes can be disrupted by debris caused by natural disasters.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	GC 2025.3
Name of Action or Project:	**Debris removal & regular brush clearing**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Mitigate the risk to life and property by ensuring that debris does not interfere with draining systems thus increasing the risk for losses due to flooding.
Estimated Cost:	$500,000
Benefits:	Frequent removal of debris will help clear roadways and drainage systems. Reducing the likelihood of future flooding events..
Plan for Implementation	
Responsible Organization/Department:	Road and Bridge Department
Supporting Organization/Department:	County Road and Bridge Dept, EMD
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	HMGP, FEMA Recovery, Transportation budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Gilman City**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornado
Problem being Mitigated:	FEMA-approved storm shelters have proven effective in mitigating the loss of property and life during tornados. A community-wide shelter program should be adopted for residents who may not have adequate shelter in their homes to minimize the potential for loss of life. School safe rooms can protect students from injury during a thunderstorm, tornado or natural wind event/disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	GC 2025.4
Name of Action or Project:	**Storm shelter/safe room**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install storm shelters in locations with insufficient protection including, but not limited to, schools, local recreation areas, and public facilities.
Estimated Cost:	$2M
Benefits:	Storm shelters can protect the lives of individuals in a thunderstorm, tornado or hazardous wind event who may not have other options for sufficient shelter.
Plan for Implementation	
Responsible Organization/Department:	City officials
Supporting Organization/Department:	County Commissioners, Local Police Departments, GHRPC, County EMD
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**City of Gilman City**
Risk / Vulnerability	
Hazard(s) Addressed:	Extreme Temperatures
Problem being Mitigated:	Extreme temperatures (severe heat and severe cold) present hardship and high risk for injury or death to county citizens, especially the very young and old.
Action or Project	
Applicable Goal Statement:	Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire
Action/Project Number:	GC 2025.5
Name of Action or Project:	**Vulnerable population identification**
Mitigation Category:	Emergency Services
Action or Project Description:	Identify and maintain list of local vulnerable populations that are the most susceptible to extreme heat and cold to ensure that local public safety officials confirm their well-being during episodes of extreme temperature, reducing the risk of loss of life due to hazardous conditions and natural hazards.
Estimated Cost:	$500
Benefits:	Lives could be saved through identification of vulnerable populations for well-being checks during natural hazards.
Plan for Implementation	
Responsible Organization/Department:	Police and Fire departments
Supporting Organization/Department:	County EMD, County Health Department, Coordination with Senior Centers, DHHS, local doctor's offices, County Sheriff's Department, Fire District, Ambulance District
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continued
Report of Progress:	Limited progress

Action Worksheet	
Name of Jurisdiction:	**City of Ridgeway**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of Eagleville.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CR – 2025.1
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide mitigation education, information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting the community.
Plan for Implementation	
Responsible Organization/Department:	City council, Mayor
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1 - 5 years
Potential Fund Sources:	General Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued/Modified
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Ridgeway**
Risk / Vulnerability	
Hazard(s) Addressed:	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado
Problem being Mitigated:	Critical facilities, including shelters, with auxiliary power supplies should be available to residents affected by power outages.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CR 2025.2
Name of Action or Project:	**Critical facilities back-up**
Mitigation Category:	Structure and infrastructure
Action or Project Description:	Assist critical facilities to identify gaps in backup communications and power systems that lead to a loss of continuity of operations.
Estimated Cost:	$5,000
Benefits:	Critical facilities, such as shelters, can continue to operate in the event of a disaster, reducing risks to life and property.
Plan for Implementation	
Responsible Organization/Department:	Mayor, Local Emergency Coordinator
Supporting Organization/Department:	County EMD, Neighboring Counties/Agencies with Mutual Aid Agreements
Action/Project Priority:	HIGH
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	HMGP, Capital projects budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**City of Ridgeway**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado
Problem being Mitigated:	Transportation routes can be disrupted by debris caused by natural disasters.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CR 2025.3
Name of Action or Project:	**Debris removal & regular brush clearing**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Mitigate the risk to life and property by ensuring that debris does not interfere with draining systems thus increasing the risk for losses due to flooding.
Estimated Cost:	$500,000
Benefits:	Frequent removal of debris will help clear roadways and drainage systems. Reducing the likelihood of future flooding events..
Plan for Implementation	
Responsible Organization/Department:	Road and Bridge Department
Supporting Organization/Department:	County Road and Bridge Dept, EMD
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	HMGP, FEMA Recovery, Transportation budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of Ridgeway**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornado
Problem being Mitigated:	FEMA-approved storm shelters have proven effective in mitigating the loss of property and life during tornados. A community-wide shelter program should be adopted for residents who may not have adequate shelter in their homes to minimize the potential for loss of life. School safe rooms can protect students from injury during a thunderstorm, tornado or natural wind event/disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	CR 2025.4
Name of Action or Project:	**Storm shelter/safe room**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install storm shelters in locations with insufficient protection including, but not limited to, schools, local recreation areas, and public facilities.
Estimated Cost:	$2M
Benefits:	Storm shelters can protect the lives of individuals in a thunderstorm, tornado or hazardous wind event who may not have other options for sufficient shelter.
Plan for Implementation	
Responsible Organization/Department:	City officials
Supporting Organization/Department:	County Commissioners, Local Police Departments, GHRPC, County EMD
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**City of New Hampton**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of Eagleville.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CNH – 2025.1
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide emergency preparedness information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting
Plan for Implementation	
Responsible Organization/Department:	City council, Mayor
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1 - 5 years
Potential Fund Sources:	General Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued/Modified
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of New Hampton**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Extreme Temperatures, Severe Thunderstorm, Severe Winter Weather, Tornado
Problem being Mitigated:	All citizens should have sufficient access to advance and emergency weather information in times of severe weather.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather
Action/Project Number:	CNH 2025.2
Name of Action or Project:	**Weather alerts**
Mitigation Category:	Education and outreach
Action or Project Description:	Maintain or expand as needed or able, the distribution methods of severe weather alerts to the general public. Local governments should encourage residents to purchase weather radios or receive mobile phone alerts to ensure that everyone has sufficient access to information in times of severe weather.
Estimated Cost:	$1,000
Benefits:	Reach more residents during severe weather, increasing potential to save lives and property.
Plan for Implementation	
Responsible Organization/Department:	City bord
Supporting Organization/Department:	County EMD, Fire Departments
Action/Project Priority:	High
Timeline for Completion:	1 – 5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of New Hampton**
Risk / Vulnerability	
Hazard(s) Addressed:	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado
Problem being Mitigated:	Critical facilities, including shelters, with auxiliary power supplies should be available to residents affected by power outages.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CNH 2025.3
Name of Action or Project:	**Critical facilities back-up**
Mitigation Category:	Structure and infrastructure
Action or Project Description:	Assist critical facilities to identify gaps in backup communications and power systems that lead to a loss of continuity of operations.
Estimated Cost:	$5,000
Benefits:	Critical facilities, such as shelters, can continue to operate in the event of a disaster, reducing risks to life and property.
Plan for Implementation	
Responsible Organization/Department:	Mayor, Local Emergency Coordinator
Supporting Organization/Department:	County EMD, Neighboring Counties/Agencies with Mutual Aid Agreements
Action/Project Priority:	Medium
Timeline for Completion:	
Potential Fund Sources:	HMGP, Capital projects budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**City of New Hampton**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado
Problem being Mitigated:	Transportation routes can be disrupted by debris caused by natural disasters.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	CNH 2025.4
Name of Action or Project:	**Debris removal & regular brush clearing**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Mitigate the risk to life and property by ensuring that debris does not interfere with draining systems thus increasing the risk for losses due to flooding.
Estimated Cost:	$500,000
Benefits:	Frequent removal of debris will help clear roadways and drainage systems. Reducing the likelihood of future flooding events..
Plan for Implementation	
Responsible Organization/Department:	Road and Bridge Department
Supporting Organization/Department:	County Road and Bridge Dept, EMD
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	HMGP, FEMA Recovery, Transportation budget
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**City of New Hampton**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornado
Problem being Mitigated:	FEMA-approved storm shelters have proven effective in mitigating the loss of property and life during tornados. A community-wide shelter program should be adopted for residents who may not have adequate shelter in their homes to minimize the potential for loss of life. School safe rooms can protect students from injury during a thunderstorm, tornado or natural wind event/disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	CNH 2025.5
Name of Action or Project:	**Storm shelter/safe room**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install storm shelters in locations with insufficient protection including, but not limited to, schools, local recreation areas, and public facilities.
Estimated Cost:	$2M
Benefits:	Storm shelters can protect the lives of individuals in a thunderstorm, tornado or hazardous wind event who may not have other options for sufficient shelter.
Plan for Implementation	
Responsible Organization/Department:	City officials
Supporting Organization/Department:	County Commissioners, Local Police Departments, GHRPC, County EMD
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**City of New Hampton**
Risk / Vulnerability	
Hazard(s) Addressed:	Extreme Temperatures
Problem being Mitigated:	Extreme temperatures (severe heat and severe cold) present hardship and high risk for injury or death to county citizens, especially the very young and old.
Action or Project	
Applicable Goal Statement:	Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire
Action/Project Number:	CNH 2025.6
Name of Action or Project:	**Vulnerable population identification**
Mitigation Category:	Emergency Services
Action or Project Description:	Identify and maintain list of local vulnerable populations that are the most susceptible to extreme heat and cold to ensure that local public safety officials confirm their well-being during episodes of extreme temperature, reducing the risk of loss of life due to hazardous conditions and natural hazards.
Estimated Cost:	$500
Benefits:	Lives could be saved through identification of vulnerable populations for well-being checks during natural hazards.
Plan for Implementation	
Responsible Organization/Department:	Police and Fire departments
Supporting Organization/Department:	County EMD, County Health Department, Coordination with Senior Centers, DHHS, local doctor's offices, County Sheriff's Department, Fire District, Ambulance District
Action/Project Priority:	High
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Progress Report	
Action Status:	Continued
Report of Progress:	Limited progress

Action Worksheet	
Name of Jurisdiction:	**City of New Hampton**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding
Problem being Mitigated:	Unregulated development in the floodplains
Action or Project	
Applicable Goal Statement:	Goal 2: Minimize property damage due to flooding, levee failure or dam incidents.
Action/Project Number:	CNH – 2025.7
Name of Action or Project:	**PARTICIPATION IN NFIP (National Floodplain Insurance Program)**
Mitigation Category:	Planning and regulation
Action or Project Description:	City will continue participation in NFIP, re-evaluate and continue enforcement of ordinances and regulations, and continue to work with the floodplain manager.
Estimated Cost:	None
Benefits:	Protection of structures insured through NFIP.
Plan for Implementation	
Responsible Organization/Department:	City Floodplain Manager
Supporting Organization/Department:	Local Emergency Coordinator, SEMA, County EMD
Action/Project Priority:	Medium
Timeline for Completion:	1-5 years
Potential Fund Sources:	General revenue
Local Planning Mechanisms to be Used in Implementation, if any:	Floodplain Ordinance
Progress Report	
Action Status:	Continued
Report of Progress:	In progress

Action Worksheet	
Name of Jurisdiction:	**North Harrison R-III School district**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of Eagleville.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	NHSD – 2025.1
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide emergency preparedness information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting
Plan for Implementation	
Responsible Organization/Department:	School staff, School Board
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1 - 5 years
Potential Fund Sources:	General Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued/Modified
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**North Harrison R-III School district**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	It is necessary to maintain and update Mutual Aid Agreements for swift response to provide support during a natural disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	NHSD 2025.2
Name of Action or Project:	**Mutual aid agreements**
Mitigation Category:	Planning and Regulation
Action or Project Description:	Execute and maintain mutual aid agreements with all relevant agencies.
Estimated Cost:	$500
Benefits:	Mutual aid agreements reduce risk to life and property by filling identified gaps that often lead to increased losses of life and property and ensuring the continued operations of critical community life-lines.
Plan for Implementation	
Responsible Organization/Department:	School leadership
Supporting Organization/Department:	County Commission, Fire Departments and Ambulance District
Action/Project Priority:	HIGH
Timeline for Completion:	1 year
Potential Fund Sources:	General revenue budget
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP
Progress Report	
Action Status:	Continued
Report of Progress:	Reviewed as needed

Action Worksheet	
Name of Jurisdiction:	**North Harrison R-III School district**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornado
Problem being Mitigated:	FEMA-approved storm shelters have proven effective in mitigating the loss of property and life during tornados. A community-wide shelter program should be adopted for residents who may not have adequate shelter in their homes to minimize the potential for loss of life. School safe rooms can protect students from injury during a thunderstorm, tornado or natural wind event/disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	NHSD 2025.3
Name of Action or Project:	**Storm shelter/safe room**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install storm shelters in locations with insufficient protection including, but not limited to, schools, local recreation areas, and public facilities.
Estimated Cost:	$2M
Benefits:	Storm shelters can protect the lives of individuals in a thunderstorm, tornado or hazardous wind event who may not have other options for sufficient shelter.
Plan for Implementation	
Responsible Organization/Department:	School district leadership
Supporting Organization/Department:	GHRPC
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**Ridgeway R-V**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of Eagleville.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	RSD – 2025.1
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide mitigation education, information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting the community.
Plan for Implementation	
Responsible Organization/Department:	School staff, School Board
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1 - 5 years
Potential Fund Sources:	General Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued/Modified
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**Ridgeway R-V School district**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	It is necessary to maintain and update Mutual Aid Agreements for swift response to provide support during a natural disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	RSD 2025.2
Name of Action or Project:	**Mutual aid agreements**
Mitigation Category:	Planning and Regulation
Action or Project Description:	Execute and maintain mutual aid agreements with all relevant agencies.
Estimated Cost:	$500
Benefits:	Mutual aid agreements reduce risk to life and property by filling identified gaps that often lead to increased losses of life and property and ensuring the continued operations of critical community life-lines.
Plan for Implementation	
Responsible Organization/Department:	School leadership
Supporting Organization/Department:	County Commission, Fire Departments and Ambulance District
Action/Project Priority:	HIGH
Timeline for Completion:	1 year
Potential Fund Sources:	General revenue budget
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP
Progress Report	
Action Status:	Continued
Report of Progress:	Reviewed as needed

Action Worksheet	
Name of Jurisdiction:	**Ridgeway R-V School district**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornado
Problem being Mitigated:	FEMA-approved storm shelters have proven effective in mitigating the loss of property and life during tornados. A community-wide shelter program should be adopted for residents who may not have adequate shelter in their homes to minimize the potential for loss of life. School safe rooms can protect students from injury during a thunderstorm, tornado or natural wind event/disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	NHSD 2025.3
Name of Action or Project:	**Storm shelter/safe room**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install storm shelters in locations with insufficient protection including, but not limited to, schools, local recreation areas, and public facilities.
Estimated Cost:	$2M
Benefits:	Storm shelters can protect the lives of individuals in a thunderstorm, tornado or hazardous wind event who may not have other options for sufficient shelter.
Plan for Implementation	
Responsible Organization/Department:	School district leadership
Supporting Organization/Department:	GHRPC
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**Ridgeway R-V School District**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornado
Problem being Mitigated:	Entry way doors are vulnerable to damage from severe weather leading to further losses.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	RSD 2025.4
Name of Action or Project:	**Storm reenforced entryways**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install new entry ways with reenforced doors and glass to withstand impacts from high winds and flying debris
Estimated Cost:	$2M
Benefits:	Reduce damage from wind and debris to other parts of the building by increasing the strength and resilience of outer doorways
Plan for Implementation	
Responsible Organization/Department:	School district leadership
Supporting Organization/Department:	GHRPC
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, HMGP, CDBG
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	New
Report of Progress:	New in 2026 plan

Action Worksheet	
Name of Jurisdiction:	**South Harrison R-II**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of Eagleville.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	SHSD – 2025.1
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide emergency preparedness information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting
Plan for Implementation	
Responsible Organization/Department:	School staff, School Board
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1 - 5 years
Potential Fund Sources:	General Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued/Modified
Report of Progress:	On-going

Action Worksheet	
Name of Jurisdiction:	**South Harrison R-II**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	It is necessary to maintain and update Mutual Aid Agreements for swift response to provide support during a natural disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	SHSD 2025.2
Name of Action or Project:	**Mutual aid agreements**
Mitigation Category:	Planning and Regulation
Action or Project Description:	Execute and maintain mutual aid agreements with all relevant agencies.
Estimated Cost:	$500
Benefits:	Mutual aid agreements reduce risk to life and property by filling identified gaps that often lead to increased losses of life and property and ensuring the continued operations of critical community life-lines.
Plan for Implementation	
Responsible Organization/Department:	School leadership
Supporting Organization/Department:	County Commission, Fire Departments and Ambulance District
Action/Project Priority:	HIGH
Timeline for Completion:	1 year
Potential Fund Sources:	General revenue budget
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP
Progress Report	
Action Status:	Continued
Report of Progress:	Reviewed as needed

Action Worksheet	
Name of Jurisdiction:	**South Harrison R-II**
Risk / Vulnerability	
Hazard(s) Addressed:	Severe Thunderstorms, Tornado
Problem being Mitigated:	FEMA-approved storm shelters have proven effective in mitigating the loss of property and life during tornados. A community-wide shelter program should be adopted for residents who may not have adequate shelter in their homes to minimize the potential for loss of life. School safe rooms can protect students from injury during a thunderstorm, tornado or natural wind event/disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning.
Action/Project Number:	SHSD 2025.3
Name of Action or Project:	**Storm shelter/safe room**
Mitigation Category:	Structure and Infrastructure
Action or Project Description:	Utilize grant funds and local resources to construct or install storm shelters in locations with insufficient protection including, but not limited to, schools, local recreation areas, and public facilities.
Estimated Cost:	$2M
Benefits:	Storm shelters can protect the lives of individuals in a thunderstorm, tornado or hazardous wind event who may not have other options for sufficient shelter.
Plan for Implementation	
Responsible Organization/Department:	School district leadership
Supporting Organization/Department:	GHRPC
Action/Project Priority:	High
Timeline for Completion:	5 years
Potential Fund Sources:	Capital projects budget, HMGP
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	Continued
Report of Progress:	Awaiting funding

Action Worksheet	
Name of Jurisdiction:	**Harrison County Community Hospital District**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	Preparedness remains the best option to limit the threats of hazard events on the residents of Eagleville.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	HCCHD – 2025.1
Name of Action or Project:	**Mitigation education**
Mitigation Category:	Education and Outreach
Action or Project Description:	Provide emergency preparedness information and resources related to all natural disasters to the public through active education and outreach programs.
Estimated Cost:	$500
Benefits:	The general population will increase understanding of how to prepare for natural disasters potentially affecting
Plan for Implementation	
Responsible Organization/Department:	Board of directors
Supporting Organization/Department:	Harrison County EMD, Fire Districts
Action/Project Priority:	HIGH
Timeline for Completion:	1 - 5 years
Potential Fund Sources:	General Revenue
Local Planning Mechanisms to be Used in Implementation, if any:	NA
Progress Report	
Action Status:	New
Report of Progress:	New

Action Worksheet

Name of Jurisdiction:	**Harrison County Community Hospital District**
Risk / Vulnerability	
Hazard(s) Addressed:	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire
Problem being Mitigated:	It is necessary to maintain and update Mutual Aid Agreements for swift response to provide support during a natural disaster.
Action or Project	
Applicable Goal Statement:	Goal 1: Eliminate loss of life, minimize injuries, and reduce property damage caused by tornadoes, severe thunderstorm high winds, hail and lightning. Goal 2: Minimize property damage due to flooding, levee failure or dam incidents. Goal 3: Minimize the impact to natural and human resources caused by drought, extreme temperatures and wildfire Goal 4: Maintain public services, protect life, and minimize the risk of property damage caused by severe winter weather Goal 5: Minimize injuries and property damage due to seismic and/or geological events.
Action/Project Number:	HCCHD 2025.2
Name of Action or Project:	**Mutual aid agreements**
Mitigation Category:	Planning and Regulation
Action or Project Description:	Execute and maintain mutual aid agreements with all relevant agencies.
Estimated Cost:	$500
Benefits:	Mutual aid agreements reduce risk to life and property by filling identified gaps that often lead to increased losses of life and property and ensuring the continued operations of critical community life-lines.
Plan for Implementation	
Responsible Organization/Department:	Board of directors
Supporting Organization/Department:	County Commission, Fire Departments and Ambulance District
Action/Project Priority:	HIGH
Timeline for Completion:	1 year
Potential Fund Sources:	General revenue budget
Local Planning Mechanisms to be Used in Implementation, if any:	LEOP
Progress Report	
Action Status:	New
Report of Progress:	New

Table 4.4. Mitigation Action Matrix

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
Structure and Infrastructure Projects								
County 2025.4	Snow removal	Harrison Co.	High	4	Severe winter weather	X	X	
County 2025.7	Structure grants for road and bridge upgrades	Harrison Co.	High	2	Flooding	X		
County 2025.8	Critical facilities backups	Harrison Co	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
County 2025.9	Construction upgrades to protect infrastructure	Harrison Co	High	2,5	Flooding Dam failure, Earthquake		X	
County 2025.10	Debris removal	Harrison Co	High	1,2,4,5	Flooding, Earthquakes, Severe thunderstorms, Severe winter weather, Tornado	X		
County 2025.12	Warning siren coverage	Harrison Co.	High	1	Tornado	X	X	
County 2025.13	Tree trimming maintenance	Harrison Co.	High	1,4	Severe thunderstorms, Severe winter weather, Tornado	X	X	
County 2025.15	Replace undersized culvert on Little Creek at Park Avenue.	Harrison Co.	High	2	Flooding	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CB 2025.3	Critical facilities backups	City of Bethany	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X	X	
CB 2025.4	Debris removal and regular brush clearing	City of Bethany	High	1,2,3,4,5	Flooding, Earthquakes, Severe thunderstorms, Severe winter weather, Tornado	X		
CB 2025.7	Storm shelters/Safe rooms	City of Bethany	High	1	Severe thunderstorms, tornado		X	
VB 2025.1	Critical facilities backup	Village of Blythdale	High	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
VB 2025.2	Debris removal and regular brush clearing	Village of Blythdale	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
VB 2025.4	Storm shelters/Safe rooms	Village of Blythdale	High	1	Severe thunderstorms, tornado		X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CC 2025.1	Critical facilities backup	City of Cainsville	High	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
CC 2025.2	Debris removal and regular brush clearing	City of Cainsville	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
CC 2025.4	Storm shelters/Safe rooms	City of Cainsville	High	1	Severe thunderstorms, tornado		X	
VE 2025.3	Critical facilities backup	Village of Eagleville	High	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
VE 2025.4	Debris removal and regular brush clearing	Village of Eagleville	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
VE 2025.5	Storm shelters/Safe rooms	Village of Eagleville	High	1	Severe thunderstorms, tornado		X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
GC 2025.2	Critical facilities backup	City of Gilman City	High	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
GC 2025.3	Debris removal and regular brush clearing	City of Gilman City	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
GC 2025.4	Storm shelters/Safe rooms	City of Gilman City	High	1	Severe thunderstorms, tornado		X	
CR 2025.4	Storm shelters/Safe rooms	City of Ridgeway	High	1	Severe thunderstorms, tornado		X	
CR 2025.2	Critical facilities backup	City of Ridgeway	High	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
CR 2025.3	Debris removal and regular brush clearing	City of Ridgeway	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CNH 2025.3	Critical facilities backup	City of New Hampton	Medium	1,2,3,4,5	Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado	X		
CNH 2025.4	Debris removal and regular brush clearing	City of New Hampton	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
CNH 2025.5	Storm shelters/Safe rooms	City of New Hampton	High	1	Severe thunderstorms, tornado		X	
NHSD 2025.3	Storm shelters/Safe rooms	North Harrison R-III	High	1	Severe thunderstorms, tornado		X	
RSD 2025.3	Storm shelters/Safe rooms	Ridgeway R-V	High	1	Severe thunderstorms, tornado		X	
RSD 2025.3	Storm reenforced entryways	Ridgeway R-V	High	1	Severe thunderstorms, tornado		X	
SHSD 2025.3	Storm shelters/Safe rooms	South Harrison R-II	High	1	Severe thunderstorms, tornado		X	
Natural Systems Protection								
County 2025.13	Tree trimming maintenance	Harrison Co.	High	1,4	Severe thunderstorms, Severe winter weather, Tornado	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
VB 2025.2	Debris removal and regular brush clearing	Village of Blythdale	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	CC 2025.2
CC 2025.2	Debris removal and regular brush clearing	City of Cainsville	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
VE 2025.4	Debris removal and regular brush clearing	Village of Eagleville	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
GC 2025.3	Debris removal and regular brush clearing	City of Gilman City	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
CR 2025.3	Debris removal and regular brush clearing	City of Ridgeway	High	1,2,4,5	Flooding, Earthquake, Severe thunderstorm, Sever winter storm, tornado	X	X	
Planning and Regulation								
CB 2025.9	NFIP Participation	City of Bethany	Medium	2	Flooding		X	X
VB 2025.7	NFIP Participation	Village of Bythdale	Medium	2	Flooding		X	X
CC 2025.7	NFIP Participation	City of Cainsville	Medium	2	Flooding		X	X

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CNH 2025.7	NFIP Participation	City of New Hampton	Medium	2	Flooding		X	X
NHSD 2025.2	Mutual aid agreements	North Harrison R-III	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
RSD 2025.2	Mutual aid agreements	Ridgeway R-V	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
SHSD 2025.2	Mutual aid agreements	South Harrison R-II	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
HCCHD 2025.2	Mutual aid agreements	Harrison Co Community Hospital	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
Education and Outreach								
County 2025.2	Safety audits and self-inspection training for critical facilities	Harrison Co.	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X		

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
County 2025.3	Public mitigation education	Harrison Co.	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
County 2025.5	Public education for early warning systems	Harrison Co.	Medium	1,2,3,4,5	Flooding, Dam Failure, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
County 2025.14	Creation of a county-level municipality steering committee	Harrison Co	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CB 2025.1	Hazard education for those involved in land development	City of Bethany	High	1,2,3,4,5,	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire		X	
CB 2025.2	Weather Alerts	City of Bethany	High	1,2,3,4,5	Flooding, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
CB 2025.5	Mitigation education	City of Bethany	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
CB 2025.8	Weather spotter training	City of Bethany	High	1	Severe thunderstorm, Toirnado	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
VB 2025.3	Mitigation education	Village of Bythdale	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
VB 2025.5	Weather Alerts	Village of Bythdale	High	1,2,3,4,5	Flooding, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
CC 2025.3	Mitigation education	City of Cainsville	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CC 2025.5	Weather Alerts	City of Cainsville	High	1,2,3,4,5	Flooding, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
VE 2025.1	Mitigation education	Village of Eagleville	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
VE 2025.2	Weather Alerts	Village of Eagleville	High	1,2,3,4,5	Flooding, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
GC 2025.1	Mitigation education	City of Gilman City	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
CR 2025.1	Mitigation education	City of Ridgeway	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
CNH 2025.1	Mitigation education	City of New Hampton	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
CNH 2025.2	Weather Alerts	City of New Hampton	High	1,2,3,4,5	Flooding, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
NHSD 2025.1	Mitigation education	North Harrison R-III	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
RSD 2025.1	Mitigation education	Ridgeway R-V	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
SHSD 2025.1	Mitigation education	South Harrison R-II	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
HCCHD 2025.1	Mitigation education	Harrison Co. Community Hospital	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
Emergency Services								
County 2025.1	County-wide inventory of safe rooms and shelters	Harrison Co.	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X		

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
County 2025.7	Countywide disaster exercises and drills	Harrison Co.	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
County 2025.11	Mutual aid agreements	Harrison Co.	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	
County 2025.12	Warning siren coverage	Harrison Co	High	1	Tornado	X	X	
CB 2025.6	Mutual aid agreements	City of Bethany	High	1,2,3,4,5	Flooding, Dam Failure, Earthquakes, Drought, Extreme Temperatures, Severe thunderstorms, Severe winter weather, Tornado, Wildfire	X	X	

#	Action	Jurisdiction	Priority	Goals Addressed	Hazards Addressed	Address Current Development	Address Future Development	Continued Compliance with NFIP
VB 2025.6	Vulnerable population identification	Village of Bythdale	High	3	Extreme temperatures	X	X	
CC 2025.6	Vulnerable population identification	City of Cainsville	High	3	Extreme temperatures	X	X	
VE 2025.6	Vulnerable population identification	Village of Eagleville	High	3	Extreme temperatures	X	X	
GC 2025.5	Vulnerable population identification	City of Gilman City	High	3	Extreme temperatures	X	X	
CNH 23025.6	Vulnerable population identification	City of New Hampton	High	3	Extreme temperatures	X	X	

5 PLAN MAINTENANCE PROCESS

5 PLAN MAINTENANCE PROCESS 5.1

5.1 Monitoring, Evaluating, and Updating the Plan 5.2

5.1.1 Responsibility for Plan Maintenance 5.2

5.1.2 Plan Maintenance Schedule 5.2

5.1.3 Plan Maintenance Process 5.2

5.2 Incorporation into Existing Planning Mechanisms 5.5

5.3 Continued Public Involvement 5.7

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 State Emergency Management Agency (SEMA) requires that Hazard Mitigation Plans be reviewed periodically, at least annually, to ensure that goals and objectives are being considered. Revisions to the actions or strategies may be required, as well as acknowledging completed successful mitigation actions. This section of the Harrison County Multi-jurisdictional Hazard Mitigation Plan provides the process to review, revise, and update the plan.

The maintenance of the plan shall be delegated to the County Emergency Management Committee. They meet quarterly and following any disaster declarations and will invite members of the MPC to attend these meetings to discuss the plan progress and determine if any updates or amendments need to be considered.

Maintenance shall involve agreement of the participating jurisdictions, including school 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 Commissioners and governing bodies of participating jurisdictions; and
- Inform and solicit input from the public.

The Harrison County Emergency Management Committee is an advisory body and can only make recommendations to county, city, town, or district elected officials. Its primary duty is to coordinate emergency departments within the county. It will attempt 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

The MPC agrees to meet annually and after a state or federally declared hazard event as appropriate to monitor progress and update the mitigation strategy. The Harrison County Emergency Management Director will be responsible for initiating the plan reviews and will invite

members of the MPC and other interested parties to the meeting.

In coordination with all participating jurisdictions, the Emergency Management Director will be responsible for initiating a five-year written update of the plan to 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

There were no changes made in the plan due to changes in priorities of any jurisdiction that participated in the development of the plan. The plan MUST describe the process for evaluating the plan for effectiveness, including evaluation criteria, when it will be evaluated for effectiveness, and who will be responsible for this evaluation.

The plan must identify how, when and by whom the plan will be assessed for effectiveness at achieving its stated purpose and goals (evaluating). Progress on the proposed actions can be monitored by evaluating changes in vulnerabilities identified in the plan. The MPC (and the Harrison County Emergency Committee) during the annual meeting 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, and/or
- 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, and
- 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 will 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 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 member will determine necessary remedial action, making any required modifications to the plan.
- If new actions are identified to implement mitigation activities, the jurisdictional MPC member will take necessary actions to amend the plan. GHRPC staff currently handles such requests.

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 in cooperation with the Harrison County Emergency Committee deems appropriate and necessary. Changes will be approved by the Harrison County Commissioners and the governing boards of the other participating jurisdictions.

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 Harrison 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;
- Harrison 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; and
- Other plans and policies outlined in the capability assessment sections for each jurisdiction in Chapter 2 of this plan.

The MPC (or designated responsible entity) members involved in updating these existing planning mechanisms will be responsible for integrating the findings and actions of the mitigation plan, as appropriate. The MPC (or designated responsible entity) is also responsible for monitoring this integration and incorporation of the appropriate information into the five-year update of the multi-jurisdictional hazard mitigation plan.

Additionally, after the annual review of the Hazard Mitigation Plan, the Harrison County Emergency Management Director will provide the updated Mitigation Strategy with current status of each mitigation action to the County Commissioners 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.

Table 5.1. Planning Mechanisms Identified for Integration of Hazard Mitigation Plan

Jurisdiction	Planning Mechanisms	Integration Process for Previous Plan	Integration Process for Current Plan
Harrison County	Transportation Advisory Committee (TAC)	Member of TAC attended all planning meetings and identified actions relating to transportation infrastructure were included in annual update to Unfunded Needs List and the State Transportation	Member of TAC attended all planning meetings and identified actions relating to transportation infrastructure were included in annual update to unfunded needs list, the State Transportation

		Improvement Plan, and the Regional Transportation Plan	Improvement Plan, and the Regional Transportation Plan
	Harrison County Emergency Plan	The Commissioners attended all planning meetings and identified actions relating to infrastructure were included in annual update to Comprehensive Plan	The Commissioners and EMD attended all planning meetings. Identified new actions or ongoing actions relating to infrastructure will be included in annual update to Comprehensive Plan
	CEDS, LEPC, Council Budgeting Session	Annual review, county emergency plan review	Annual CEDS review, County Emergency Plan Review
City of Bethany	Local Budget, CEDS, Emergency Plan, City Ordinances	Annual review	Annual CEDS review, Emergency Plan Review, Regional Transportation Plan
Blythedale	Local Budget, CEDS, Emergency Plan, City Ordinances, Floodplain Ordinance	Annual Review	Annual CEDS review, Emergency Plan Review, Regional Transportation Plan
City of Cainsville	Local Budget, CEDS, Emergency Plan, City Ordinances	Annual Review	Annual CEDS review, Emergency Plan Review, Regional Transportation Plan
City of Eagleville	Local Budget, CEDS, Emergency Plan, City Ordinances	Annual Review	Annual CEDS review, Emergency Plan Review, Regional Transportation Plan
City of Gilman City	Local Budget, CEDS, Emergency Plan, City Ordinances	Annual Review	Annual CEDS review, Emergency Plan Review, Regional Transportation Plan
Village of New Hampton	Local Budget, CEDS, Emergency Plan, City Ordinances	Annual Review	Annual CEDS review, Emergency Plan Review, Regional Transportation Plan
City of Ridgeway	Local Budget, CEDS, Emergency Plan, City Ordinances	Annual Review	Annual CEDS review, Emergency Plan Review, Regional Transportation Plan
North Harrison R-III	Master Plan, Capital Improvement Plan, Emergency Plan, Weapons Policy	Annual Review	Review of Master Plan, Capital Improvement Plan, Emergency Plan, and Weapons Policy
Ridgeway R-V	Master Plan, Emergency Plan, Weapons Policy	Annual Review	Review of Master Plan, Emergency Plan, and Weapons Policy
South Harrison R-II	Master Plan, Capital Improvement Plan, Emergency Plan, Weapons Policy	Annual Review	Review of Master Plan, Capital Improvement Plan, Emergency Plan, and Weapons Policy

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. Information about the annual reviews will be posted in the local newspaper, as well as on the Harrison County website following each annual review of the mitigation plan and will solicit comments from the public based on the annual review.

The Harrison County emergency management director and the MPC will be responsible for publicizing success stories if mitigation activities are completed by issuing press releases to local radio and newspaper outlets and publicizing information on the Harrison County and/or Jurisdiction's website.

When the MPC reconvenes for the five-year update, it 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, primarily newspapers.

Appendix A: Sources

- 2020 Block Geography (US Census Bureau) & National Land Cover Dataset (MRLC)
- American Meteorological Society
- BC Ministry of Forests, Lands, and Natural Resource Operations
- County and local Comprehensive Plans to the extent available
- County Emergency Management
- County Flood Insurance Rate Map, FEMA
- Data Collection Questionnaires completed by each jurisdiction.
- Decennial Census
- DESE
- Department of Geography
- Encyclopedia Britannica, Inc.
- Environmental Protection Agency
- Federal Emergency Management Agency (FEMA)
- Flood Insurance Administration
- Flood Insurance Study, FEMA
- Hazards US (HAZUS)
- Iowa Department of Natural Resources
- Harrison County LEPC
- Missouri Department of Commerce & Insurance
- Missouri Department of Conservation
- Missouri Department of Health and Human Services; health.mo.gov
- Missouri Department of Natural Resources
- Missouri Department of Transportation
- Missouri Division of Fire Marshal Safety
- Missouri Hazard Mitigation Plans (2013, 2018, and 2023)
- Missouri Public Service Commission
- National Agricultural Statistics Service (Agriculture production/losses)
- National Centers for Environmental Information
- National Drought Mitigation Center Drought Reporter
- National Fire Incident Reporting System (NFIRS)
- National Inventory of Dams
- National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information (NCEI);
- National Weather Service
- NFIP Community Status Book
- Oxford Brooks University
- Previously approved Harrison County Hazard Mitigation Plan (2021)
- Purdue University
- SEMA
- SILVIS Lab, Department of Forest Ecology and Management, University of Wisconsin
- State of Missouri GIS data
- Tornado and Storm Research Organization (TORRO)
- United States Geological Survey (USGS)
- US Army Corps of Engineers
- US Bureau of the Census and Annual population estimates

- US Community Survey, 2023
- US Department of Agriculture's (USDA) Risk Management Agency Crop Insurance Statistics
- US Department of Transportation
- US Drought Monitor
- US Fish and Wildlife Service
- www.tornadochaser.net
- www.weather.gov

Appendix B: Planning Documentation & Invitations

Meeting #1

County: Harrison County **Date&Time:** 7/23/25 3pm - 4 pm

Printed Name	Jurisdiction	Commute Time	Email or Mobile number (text)
~~JACK~~ HODGE	~~HARRISON~~ COUNTY		
Cales Jacobs	Har. Co EMD		HC.emd.TM@gmail.com
JACOB DEMUM	City of Bethany		fire@bethany mo.gov
LARRY Simpson	City of Bethany		HommerSimpson6@Aol.com
Courtney Cross	Har Co Health Dept		Courtney.Cross@lpha.mo.gov
Lisa McGhee	Harrison Co Com Hosp		lisa.mcghee@hcchospital.org
Gega Petin	~~Harrison Co Amb Dept~~ City of Gilman City Bethany		gchall@grm.net
~~Michael~~ M.chael Fitzpatrick	Ridgeway R-V School District		mfitzpatrick@rhsK12.org *
Amanda George	GHRPC		amanda@ghrpc.org
Glen Briggs	GHRPC		glen@ghrpc.org

Zoom

1pm - 1:30pm

HMP Meeting # 1 for Harrison County 7/24/2025

Printed Name	Jurisdiction	Commute Time	Email or Mobile number (text)
Rebecca Deskins	City of Cainsville	—	council@gem.net.
Dr. Michael Estes	South Harrison school	—	
Tearesa Parson	City of Eagleville	—	eaglevi[illegible] gem.net.
Toni Stoems	City of Ridgeway	—	toni.stoems@cityofridgeway mo.com
Glen Briggs	GHRPC	—	
Amanda George	GHRPC	—	
Brandy Jones	GHRPC	—	

County: Harrison #2 **Date&Time:** Aug 11, 2025 3:00pm - 4:00pm

Printed Name	Jurisdiction	Commute Time	Email or Mobile number (text)
JACOB DENUN	City of Bethany	0	[illegible]@bethanyok.com
Schuyler Cox	HCCH		schuyler.cox@hcchospital.org
Michael Fitzpatrick	Ridgeway R-V School District 20 mins		MFitzpatrick@rhsk12.org *
Amanda George	GHRPC		amanda@ghrpc.org
Glen Briggs	GHRPC		glen@ghrpc.org

10Am - 10:45

HMP Meeting # 2 for Harrison County 8 / 14 /2025

Printed Name	Jurisdiction	Commute Time	Email or Mobile number (text)
Toni Storms	City of Ridgeway	Zoom	Toni.Storms@cityofridgewayms.com
Melissa Newman	North Harrison	Zoom	Newmanm@NHR3.net
Dana DeVore	GHRPC.		
Skyler Crowder	City of Blythedale	Zoom	vob1880c@gmail.com
Glenn Briggs	GHRPC		
Brandy Jones	GHRPC		
Amanda. George.	GHRPC		
Mike Tipton	North Harrison	Zoom	*signed

3:00 pm

HMP Meeting # 3 for Harrison County 9/23/2025

Printed Name	Jurisdiction	Commute Time	Email or Mobile number (text)
amanda George	GHRPC	–	amanda@ghrpc.org
Glen Briggs	GHRPC	–	glen@ghrpc.org
Lesa Petrov	city of Gilman City		gchall@grm.net
** Rebecca DesKins	City of Cainsville		council@grm.net
Caleb Jacobs	Harrison County EMD		hc.emd.tm@gmail.com
JACOB Denum	City of Bethany		[illegible] @bethanymo.com
Lisa McGhee	Harrison Co Com Hosp		lisa.mcghee@hcchospital.org
** Lorrie Langfitt	City of New Hampton		lorrie_langfitt@yahoo.com

* Send previous meeting materials

** Send questionnaire & link / survey monkey

Virtual

10:00AM – 10:15 AM

HMP Meeting # 3 for Harrison County 9/24/2025

Printed Name	Jurisdiction	Commute Time	Email or Mobile number (text)
Amanda George	GHRPC	—	amanda@ghrpc.org
Glen Briggs	GHRPC	—	glen@ghrpc.org
Toni Storm	Ridgeway	—	
Michael Fitzpatrick	Ridgeway R-V	—	

Agenda – Harrison County Meeting #1

July 23 &24, 2025

- Start Meeting
- Introductions (complete sign-in sheet)
- What is Hazard Mitigation Planning?
    - Existing Plan
    - Update every 5 years
    - Requirement for HMGP grants
- Planning process
    - 3 meetings
        - Outreach and Hazard Identification (This meeting)
        - Risk Assessment & Mitigation Strategies – What are the vulnerabilities within our jurisdiction and Mitigation Strategies that could reduce risk from these hazards
        - Action Prioritization; Reviewing and Adopting the Plan; and Plan Upkeep
- To be a participating jurisdiction, you must do the following:
    - Complete jurisdictional questionnaire (County, School Districts, Cities & Villages, and Special Districts)
    - Attend at least one meeting
    - Provide suggestions about the plan, develop actions that address every hazard your jurisdiction faces, and participate in the planning process
    - Review and Adopt the plan
- Outreach
    - We (GHRPC) have sent letters, emails, and made phone calls to potential stakeholders county wide
    - Public Survey – Please complete and Share on social media
        - Share with Members of the public
        - Share with Employees of the school, city, village, etc.
- Identify Hazards
    - Email – "Hazard Identification for Harrison County"
    - Go through this worksheet
- Questions?

Agenda – Harrison County Meeting #1

July 23 &24, 2025

- Start Meeting
- Introductions (complete sign-in sheet)
- What is Hazard Mitigation Planning?
    - Existing Plan
    - Update every 5 years
    - Requirement for HMGP grants
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    - 3 meetings
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    - Review and Adopt the plan
- Outreach
    - We (GHRPC) have sent letters, emails, and made phone calls to potential stakeholders county wide
    - Public Survey – Please complete and Share on social media
        - Share with Members of the public
        - Share with Employees of the school, city, village, etc.
- Identify Hazards
    - Email – "Hazard Identification for Harrison County"
    - Go through this worksheet
- Questions?

Agenda-Harrison County Meeting #2

August 11 & 14, 2025

- Start Meeting
- Introductions (complete sign-in sheet)
- Mitigation measures – outlined the difference between:
    - Prevention
    - Protection
    - Mitigation
    - Response
    - Recovery
- Risk Assessment of different hazards in the region
    - Categorize hazards from minor impact to major impact – based on known financial impacts
    - Categorize hazards from not likely to very likely to happen – based on probability calculated by (# of events)/(# of years)
- Identifying Vulnerable Assets
    - Vulnerable populations
        - Over 65
        - Under 5
        - Low income
        - Individuals with disabilities
    - Vulnerable Structures
        - Community centers
        - Historic places
    - Economic Assets
        - Major employers
        - Key infrastructure (telecommunications networks)
        - Primary economic sectors
    - Natural-Historic-Cultural Resources
        - Conservation
        - Parks
        - Critical habitats
    - Critical Facilities and Infrastructure
        - Hospitals
        - Law enforcement
        - Water
        - Power
    - Community Activities (major)
        - Festivals
        - Economic events (farming or fishing)
- Questions?

Agenda – Harrison County

Meeting #2

- Start Meeting
- Introductions and Sign-In Sheet
- Brief Description of Hazard Mitigation Process
    - Mitigation – actions taken to reduce or eliminate long-term risks to life and property due to natural disasters
        - Involves identifying risks and vulnerabilities
        - Developing strategies to minimize the impact of disasters
    - Mitigation is important, as it is essential for breaking the cycle of damage and repair (which can be costly)
- The Hazard Mitigation Planning Process
- Risk Assessment (4 components)
    - Hazard Identification (Meeting #1)
    - Profiling of Hazard Events (Meeting #1)
    - Inventory of Assets
    - Estimation of potential human and economic losses based on exposure and vulnerability of people, buildings, and infrastructure
- Develop a Mitigation Strategy for each potential hazard
    - This will be based on the risk assessment and hazard identification
- Adopt and Implement the Plan

Green Hills
Regional Planning Commission
810 Washington Street, Trenton, Missouri 64683

Harrison County HMP Meeting #1 (Virtual)

Zoom - https://us02web.zoom.us/j/5315279481?omn=83155960901

Meeting Minutes
July 24th, 2025

1. **Call to Order:** The meeting was called to order at 1pm by Glen Briggs.

2. **Attendance:** Attendance and introductions.

Rebecca Deskins	City of Cainsville	RPC Staff
Dr. Michael Estes	South Harrison School District	Amanda George
Teresa Parson	City of Eagleville	Glen Briggs
Toni Storms	City of Ridgeway	Brandy Jones

3. **What is Hazard Mitigation Planning?**
   - Existing Plan
   - Updates every 5 years
   - Requirements for HMGP Grants

4. **Planning Process**
   - 3 in-person meetings and 3 corresponding virtual meetings.
     - **Meeting 1** Outreach and Hazard Identification (this Meeting)
     - **Meeting 2** Risk Assessment & Mitigation Strategies – What are the vulnerabilities within our jurisdiction and Mitigation Strategies that could reduce risk from these hazards.
     - **Meeting 3** Action Prioritization: Reviewing and Adopting the Plan: and Plan Upkeep.

5. **To be a participating jurisdiction, you must do the following:**
   - Complete jurisdictional questionnaire (County, School District, Cities & Villages, and Special Districts)
   - Attend at least one meeting
   - Provide suggestions about the plan, develop actions that address every hazard your jurisdiction faces, and participate in the planning process
   - Review and adopt the plan

6. **Outreach**
    - We (GHRPC) have sent letters, emails, and made phone calls to potential stakeholder's county wide
    - Public Survey – Please complete and share on social media
        - Share with members of the public
        - Share with Employees of the school, city, village, etc.

7. **Identify Hazards**
    - Emailed to all attendees a copy of "Hazard Identification for Harrison County"
    - Detailed each hazard outlined on "Hazard Identification for Harrison County" worksheet with examples.

Opened the floor for questions?

Meeting Adjourned at 1:30pm.

Green Hills
Regional Planning Commission
810 Washington Street, Trenton, Missouri 64683

Harrison County HMP Meeting #1 (In-person)
710 S. 12th Street, Bethany
Bethany Fire Station
Meeting Minutes
July 23rd, 2025

1. **Call to Order:** The meeting was called to order at 3pm by Amanda George.

2. **Attendance:** Attendance and introductions.

Jack Hodge	Harrison County Commissioner	RPC Staff
Caleb Jacobs	Harrison County EMD	Amanda George
Jacob Denum	City of Bethany	Glen Briggs
Larry Simpson	City of Bethany	
Courtney Cross	Harrison County Health Dept.	
Lisa McGhee	Harrison Community Hospital	
Lesa Petrin	City of Gilman City	
Michael Fitzpatrick	Ridgeway R-V School District	

3. **What is Hazard Mitigation Planning?**
   - Existing Plan
   - Updates every 5 years
   - Requirements for HMGP Grants

4. **Planning Process**
   - 3 in-person meetings and 3 corresponding virtual meetings.
     - **Meeting 1** Outreach and Hazard Identification (this Meeting)
     - **Meeting 2** Risk Assessment & Mitigation Strategies – What are the vulnerabilities within our jurisdiction and Mitigation Strategies that could reduce risk from these hazards.
     - **Meeting 3** Action Prioritization: Reviewing and Adopting the Plan: and Plan Upkeep.

5. **To be a participating jurisdiction, you must do the following:**

- Complete jurisdictional questionnaire (County, School District, Cities & Villages, and Special Districts)
- Attend at least one meeting
- Provide suggestions about the plan, develop actions that address every hazard your jurisdiction faces, and participate in the planning process
- Review and adopt the plan

6. **Outreach**
    - We (GHRPC) have sent letters, emails, and made phone calls to potential stakeholder's county wide
    - Public Survey – Please complete and share on social media
        - Share with members of the public
        - Share with Employees of the school, city, village, etc.

7. **Identify Hazards**
    - Emailed/handed out to all attendees a copy of "Hazard Identification for Harrison County"
    - Detailed each hazard outlined on "Hazard Identification for Harrison County" worksheet with examples.

Opened the floor for questions?

Meeting Adjourned at 4pm.

Green Hills
Regional Planning Commission
810 Washington Street, Trenton, Missouri 64683

Harrison County HMP Meeting #2 (In-Person)
710 S. 12th Street, Bethany MO
Meeting Minutes
August 11th, 2025

1. **Call to Order:** The meeting was called to order at 3pm by Amanda George.
2. **Attendance:** Attendance and introductions.

Jacob Denum	City of Bethany	RPC Staff
Schuyler Cox	HCCH	Amanda George
Michael Fitzpatrick	Ridgeway R-V	Glen Briggs

3. **Mitigation measures.**
   - Prevention – Prevent, avoid or stop an imminent, threatened or actual act of terrorism.
   - Protection – Protect our citizens, residents, visitors, and assets against the greatest threats and hazards in a manner that allows our interests, aspirations and way of life to thrive.
   - Mitigation – Reduce the loss of life and property by lessening the impact of future disasters.
   - Response – Respond quickly to save lives, protect property and the environment, and meet basic human needs in the aftermath of a catastrophic incident.
   - Recovery – Recover through a focus on the timely restoration, strengthening and revitalization of infrastructure, and housing and a sustainable economy, as well as the health, social, cultural, historic and environmental fabric of communities affected by a catastrophic incident.

4. **Risk Assessment of different hazards in the region:**
   - Participants in the planning process ranked and rated the hazards of Daviess County and charted them. (see attached)
5. **Identifying Vulnerable Assets**
   - All attendees received a "identifying Vulnerable Assets" worksheet.
   - Amanda George and Glen Briggs explained each category and gave examples.

Opened the floor for questions?
Meeting Adjourned at 4pm.

Green Hills
Regional Planning Commission
810 Washington Street, Trenton, Missouri 64683

Harrison County HMP Meeting #2 (Virtual)
Zoom
Meeting Minutes
August 14th, 2025

1. **Call to Order:** The meeting was called to order at 10am by Amanda George.
2. **Attendance:** Attendance and introductions.

Toni Storms	City of Ridgeway	RPC Staff
Melissa Newman	North Harrison R-III	Amanda George
Skyler Crowder	City of Blythedale	Glen Briggs
Mike Tipton	North Harrison R-III	Dana DeVore
		Brandy Jones

3. **Mitigation measures.**
   - Prevention – Prevent, avoid or stop an imminent, threatened or actual act of terrorism.
   - Protection – Protect our citizens, residents, visitors, and assets against the greatest threats and hazards in a manner that allows our interests, aspirations and way of life to thrive.
   - Mitigation – Reduce the loss of life and property by lessening the impact of future disasters.
   - Response – Respond quickly to save lives, protect property and the environment, and meet basic human needs in the aftermath of a catastrophic incident.
   - Recovery – Recover through a focus on the timely restoration, strengthening and revitalization of infrastructure, and housing and a sustainable economy, as well as the health, social, cultural, historic and environmental fabric of communities affected by a catastrophic incident.

4. **Risk Assessment of different hazards in the region:**
   - Participants in the planning process ranked and rated the hazards of Daviess County and charted them. (see attached)
5. **Identifying Vulnerable Assets**
   - All attendees received a "identifying Vulnerable Assets" worksheet.
   - Amanda George and Glen Briggs explained each category and gave examples.

Opened the floor for questions?
Meeting Adjourned at 10:45pm



Green Hills Regional Planning Commission
Published by Brandy Stretch Jones · September 17 at 7:12 PM ·

We will be having the final HMP In-person meeting for Harrison County in Bethany on 9/23. Mark your calendars now. Please take the survey! Your feedback matters!

#harrisoncountymo #bethanymo #blythedalemo #cainsvillemo #eaglevillemo #gilmancitymo #newhamptonmo #RidgewayMO

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No comments yet
Be the first to comment.

Comment as Green Hills Regional Plan...



Green Hills Regional Planning Commission
Published by Brandy Stretch Jones · August 11 ·

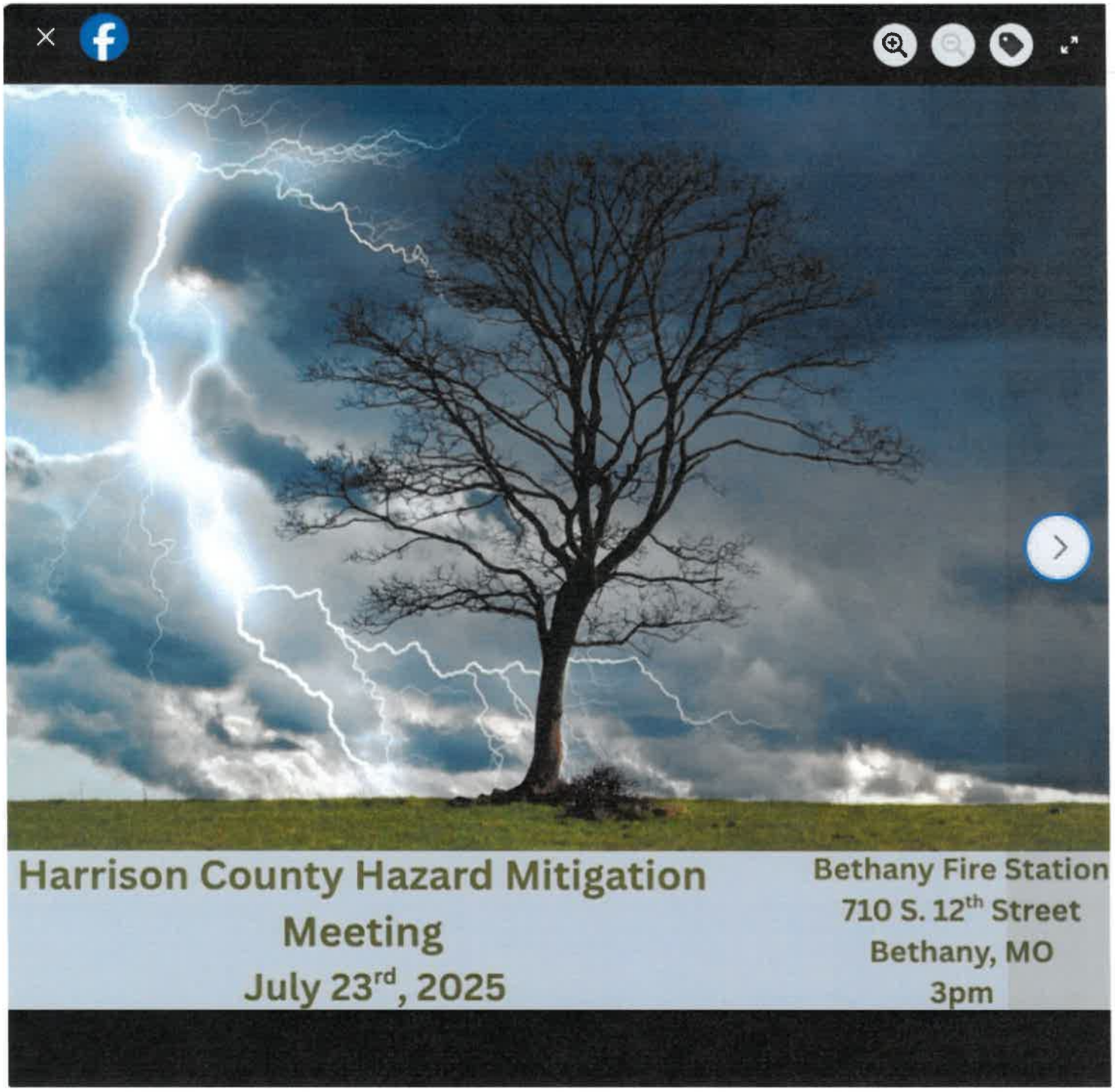
Harrison County's second Hazard Mitigation Meeting is happening TODAY 710 S. 12th Street in Bethany.

#ghrpc #harrisoncountymo #bethanymo #cainsvillemo #RidgewayMO #newhamption #eaglevillemo #hazardmitigation #communitysupport #CommunityEngagement... See more

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No comments yet
Be the first to comment.

Comment as Green Hills Regional Plan...



Green Hills Regional Planning Commission
Published by Brandy Stretch Jones · July 23 ·

Harrison County Hazard Mitigation Meeting
!!TODAY!!
Location:
Bethany Fire Station
710 S. 12th Street
Bethany
Time: 3pm

#bethanymo #harrisoncountymo #cainsvillemo #RidgewayMO #newhamption #eaglevillemo #blythedalemo #gilmancitymo #mountmoriahmo #southharrisonhigh #northharrisonhigh

Edit Boost post

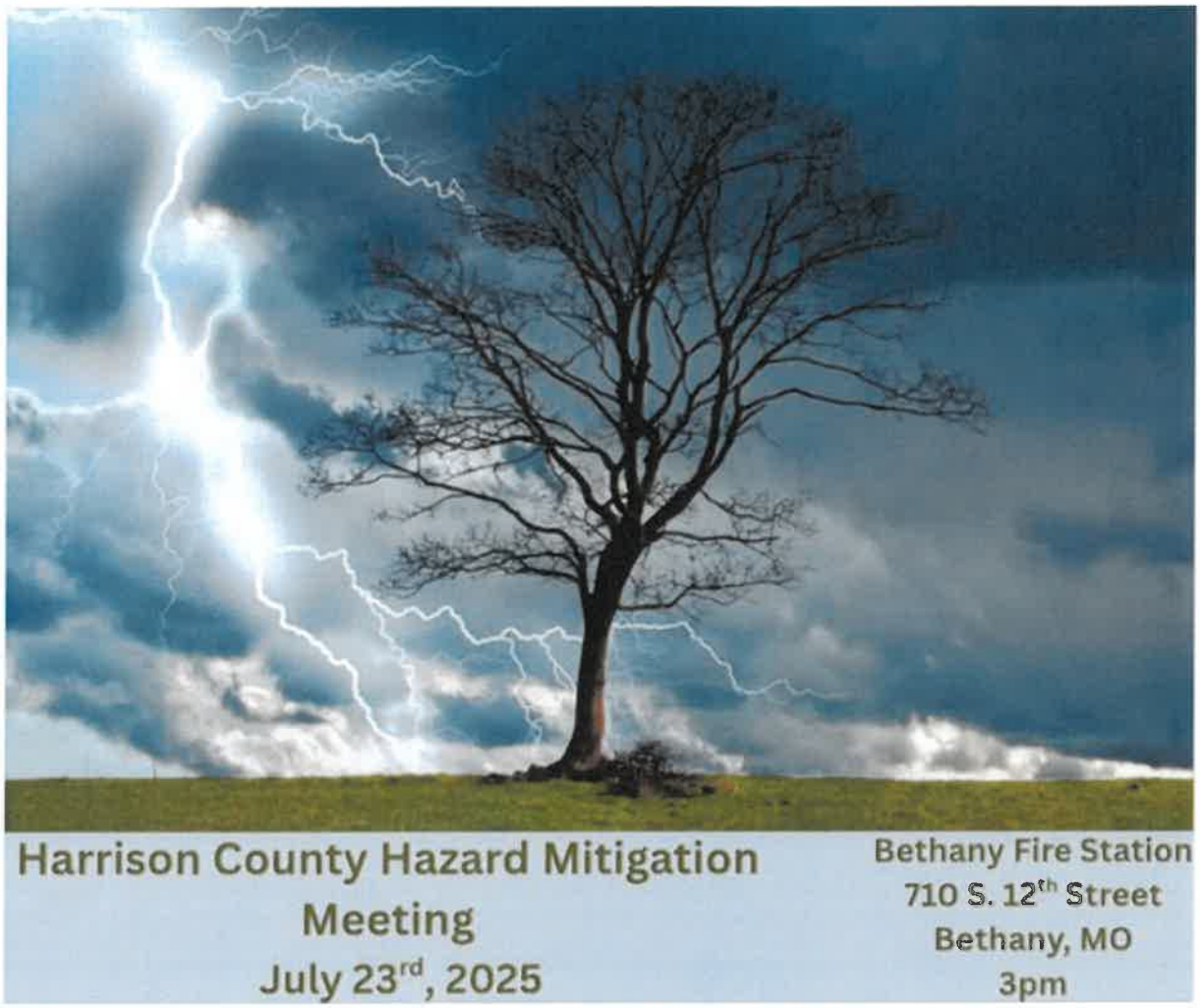
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No comments yet
Be the first to comment.

Comment as Green Hills Regional Plan...

Green Hills Regional Planning Commission
July 23 ·

Harrison County Hazard Mitigation Meeting !!TODAY!!
Location:... See more



1

Like Comment Share

Green Hills Regional Planning Commission
August 11 ·

Harrison County's second Hazard Mitigation Meeting is happening TODAY 710 S. 12th Street in Bethany. ... See more



Like Comment Share

Comment as Amanda George

Hazard Identification for Harrison County

Jurisdiction: City of Gilman City

Use this worksheet to identify which hazards can affect your community. Not all hazards apply to the planning area. For the ones that do, describe how they have been an issue in the past, or if they are a future concern.

Instructions: Describe where there may be recurring problems that you would like to see addressed.

Hazard		Is this a hazard for your community? Yes/No	If yes, briefly describe how. Think about specific locations or recurring issues that you know of in your community.
Dam Failure		?	Lagoon dams (3)
Drought		NO	
Earthquake		NO	
Extreme Temperatures (Hot and Cold)		Yes	aging population, electrical grid
Flood (Riverine & Flash)		NO	
Severe Thunderstorms	Hail	Yes	Electrical lines - city
	Lightning	yes	Electrical - city
	Severe Wind	Yes	Electrical - city
Severe Winter Weather		Yes	Streets
Tornado		Yes	No shelters - only school & local churches
Wildfire		NO	
If there are additional hazards that you would like to include, please add them here.			

Hazard Identification for Harrison County

Jurisdiction: Ridgeway R-V School District

Use this worksheet to identify which hazards can affect your community. Not all hazards apply to the planning area. For the ones that do, describe how they have been an issue in the past, or if they are a future concern.

Instructions: Describe where there may be recurring problems that you would like to see addressed.

Hazard		**Is this a hazard for your community? Yes/No**	**If yes, briefly describe how. Think about specific locations or recurring issues that you know of in your community.**
Dam Failure		No	
Drought		Yes	Depending on the summer, drought can be a major concern for farmers & the Ridgeway community. However, the 2025 summer has been wet & rainy.
Earthquake		No	Ridgeway experiences aftershocks.
Extreme Temperatures (Hot and Cold)		Yes	High humidity & way below temperatures.
Flood (Riverine & Flash)		Yes	This is not a common experience, unless experience torrential rains.
Severe Thunderstorms	Hail	Yes	Once or twice a year
	Lightning	Yes	Lighting occurs very often
	Severe Wind	Yes	Depends on the storm
Severe Winter Weather		Yes	Both Snow & ice impede access to bus routes & closing school.
Tornado		Yes	Ridgeway is in tornado alley. They are not uncommon.
Wildfire		No	
If there are additional hazards that you would like to include, please add them here.			

Hazard Identification for Harrison County

Jurisdiction: Harrison County Health Department

Use this worksheet to identify which hazards can affect your community. Not all hazards apply to the planning area. For the ones that do, describe how they have been an issue in the past, or if they are a future concern.

Instructions: Describe where there may be recurring problems that you would like to see addressed.

Hazard		**Is this a hazard for your community? Yes/No**	**If yes, briefly describe how. Think about specific locations or recurring issues that you know of in your community.**
Dam Failure		Yes	Education, flash flooding leading to power outages
Drought		Yes	Farm community
Earthquake		Yes	Biggest risk is southeast corner of the state, but we could have ripple effects with road issues, power, and assistance with receiving people in the region
Extreme Temperatures (Hot and Cold)		Yes	Aging population at risk; need for heating and/or cooling centers; pipes break, etc
Flood (Riverine & Flash)		Yes	Have low areas that flood some
Severe Thunderstorms	Hail	Yes	County wide risk
	Lightning	Yes	County wide risk, outside activities/school sports
	Severe Wind	Yes	County wide risk, power,
Severe Winter Weather		Yes	County wide risk, Roads, power, workforce impact
Tornado		Yes	County wide risk
Wildfire		Yes	
If there are additional hazards that you would like to include, please add them here.			
Truck Wrecks			I-35 and Hwy 136 have a lot of truck traffic, moving materials-

Hazard Identification for Harrison County

Jurisdiction: Harrison County Comm. Hospital

Use this worksheet to identify which hazards can affect your community. Not all hazards apply to the planning area. For the ones that do, describe how they have been an issue in the past, or if they are a future concern.

Instructions: Describe where there may be recurring problems that you would like to see addressed.

Hazard		Is this a hazard for your community? Yes/No	If yes, briefly describe how. Think about specific locations or recurring issues that you know of in your community.
Dam Failure		yes	low risk
Drought		yes	Alternative Water Sources? Mod Risk
Earthquake		Yes	low risk -
Extreme Temperatures (Hot and Cold)		yes	Mod Risk - May have need for Heating & Cooling Centers
Flood (Riverine & Flash)		yes	Mod Risk
Severe Thunderstorms	Hail	yes	Mod Risk
	Lightning	yes	Mod Risk
	Severe Wind	Yes	Mod Risk
Severe Winter Weather		Yes	Mod Risk
Tornado		Yes	Mod Risk
Wildfire		yes	Low Risk
If there are additional hazards that you would like to include, please add them here.			

Hazard Identification for HARRISON County

Jurisdiction: COUNTY

Use this worksheet to identify which hazards can affect your community. Not all hazards apply to the planning area. For the ones that do, describe how they have been an issue in the past, or if they are a future concern.

Instructions: Describe where there may be recurring problems that you would like to see addressed.

Hazard		Is this a hazard for your community? Yes/No	If yes, briefly describe how. Think about specific locations or recurring issues that you know of in your community.
Dam Failure		YES	COUNTY LAKE - COUNTY LAKE LAKE NEAR HIGHWAY 69
Drought		YES	FIRE HAZ.
Earthquake		No	NOT YET
Extreme Temperatures (Hot and Cold)		YES	COLD; CAUSES FREEZING WATER LINES HOMES CITY HEATING / COOLING CENTERS
Flood (Riverine & Flash)		YES	ROAD & PROPERTIES SCHOOL RTS. MAIL RTS.
Severe Thunderstorms	Hail	YES	ROOFS, AUTOS & WINDOW, SIDING
	Lightning	YES	FIRES, APPLIANCE DAMAGE
	Severe Wind	YES	TREES, BUILDING
Severe Winter Weather		YES	CAUSES ELECTRIC OUTAGE. EFFECTS SCHOOLS, MAIL DEL.
Tornado		YES	SHELTERS
Wildfire		YES	GRASS & TIMBER
If there are additional hazards that you would like to include, please add them here.			

Sept 23, 3:00
Aug 14th

Hazard Identification for Harrison County

Jurisdiction: Harrison Co. EMD

Use this worksheet to identify which hazards can affect your community. Not all hazards apply to the planning area. For the ones that do, describe how they have been an issue in the past, or if they are a future concern.

Instructions: Describe where there may be recurring problems that you would like to see addressed.

Hazard		Is this a hazard for your community? Yes/No	If yes, briefly describe how. Think about specific locations or recurring issues that you know of in your community.
Dam Failure		small Dams	Most Dams are small
Drought		Yes	Farmer / Crops & Cattle
Earthquake		Yes	Old "Down town" Buildings
Extreme Temperatures (Hot and Cold)		Yes	aging Population.
Flood (Riverine & Flash)		Yes	Roads & Bridges from Flash Flooding
Severe Thunderstorms	Hail	Yes	
	Lightning	yes	
	Severe Wind	Yes	
Severe Winter Weather		Yes	Many miles of Road compared to number of people
Tornado		Yes	Often only effects small number
Wildfire		Yes	Normally only less than 600 acres
If there are additional hazards that you would like to include, please add them here.			

Hazard Identification for Harrison County

Jurisdiction: City of Ridgeway

Use this worksheet to identify which hazards can affect your community. Not all hazards apply to the planning area. For the ones that do, describe how they have been an issue in the past, or if they are a future concern.

Instructions: Describe where there may be recurring problems that you would like to see addressed.

Hazard		Is this a hazard for your community? Yes/No	If yes, briefly describe how. Think about specific locations or recurring issues that you know of in your community.
Dam Failure		NO	
Drought		Yes	Major farming communitys is a frequent occurance. Effects, crops, animals & water table.
Earthquake		Yes	Buildings damage & we have several old buildings road damages. utilities outages.
Extreme Temperatures (Hot and Cold)		Yes	Large population of elderly & health conditions w/out access to relief to extreme temps. Causes utility outages. Lack of heating & cooling centers
Flood (Riverine & Flash)		Yes	Flash - Road tubes & ditches & buildings. Roads washes out & closures effecting travel
Severe Thunderstorms	Hail	Yes	Buildings damage, crop damage, vehicle damage, & home damage as many old homes
	Lightning	Yes	utilities outage, death, threat to animals, fires. home damage, risk to those w/ health conditions
	Severe Wind	Yes	Damage to trees, crops, homes, vehicles, utilities outages, old buildings. Common occurance
Severe Winter Weather		Yes, lack of storm shelters	Ice/winter weather & Thunderstorms - Buildings homes, dangerous roads, loss of wages, utilities outages.
Tornado		Yes	Death, damage to homes, buildings, vehicles, utility outage
Wildfire		Yes	Grass fires - Threat to homes, livestock, homes farms - Fire dept volunteers - limited resources
If there are additional hazards that you would like to include, please add them here.			

Hazard Identification for Harrison County

Jurisdiction: South Harrison Co. R-II School District

Use this worksheet to identify which hazards can affect your community. Not all hazards apply to the planning area. For the ones that do, describe how they have been an issue in the past, or if they are a future concern.

Instructions: Describe where there may be recurring problems that you would like to see addressed.

Hazard		**Is this a hazard for your community? Yes/No**	**If yes, briefly describe how. Think about specific locations or recurring issues that you know of in your community.**
Dam Failure		Yes	We have bus routes that would be impacted by dam failure and would result in the districts inability to transport students to and from school buildings.
Drought			Could create foundational issues of buildings as ground dries and separates from building creating cracks alongside the building.
Earthquake		Yes	Buildings structures and infrastructures could be impacted creating a safety issue and preventing school from being held in normal capacity.
Extreme Temperatures (Hot and Cold)		Yes	Temperatures impact the ability to operate in normal capacity. Weather impacts bus routes and the ability to transport students to and from school buildings. Extreme cold also impacts the ability to ensure student safety during transportation or while waiting for transportation. Heat impacts operations and maintenance of HVAC units.
Flood (Riverine & Flash)			We have several rural routes that would be impacted by flooding due to river and creek bridge crossings and areas along the river and creeks.
Severe Thunderstorms	Hail		Creates damage and stress to the roofs of school buildings resulting in leaks that impact school operations.
	Lightning		Creates damage to HVAC units and other electronic systems. Creates a safety issue for outside vents such as athletics.
	Severe Wind		Causes damage to roof and HVAC systems.
Severe Winter Weather			Prevents the operation of school due to student safety concerns.
Tornado			Prevents the operation of school due to student safety concerns.

Wildfire		Prevents the operation of school due to student safety concerns.
If there are additional hazards that you would like to include, please add them here.		

Hazard Identification for Harrison County

Jurisdiction: Bethany City

Use this worksheet to identify which hazards can affect your community. Not all hazards apply to the planning area. For the ones that do, describe how they have been an issue in the past, or if they are a future concern.

Instructions: Describe where there may be recurring problems that you would like to see addressed.

Hazard		Is this a hazard for your community? Yes/No	If yes, briefly describe how. Think about specific locations or recurring issues that you know of in your community.
Dam Failure		~~NO~~ Yes	
Drought		Yes	
Earthquake		NO	
Extreme Temperatures (Hot and Cold)		Yes	More Info on funding Email HommerSimpson6@aol.com
Flood (Riverine & Flash)		Yes	
Severe Thunderstorms	Hail	Yes	
	Lightning	Yes	
	Severe Wind	Yes	
Severe Winter Weather		Yes	
Tornado		Yes	
Wildfire		NO	
If there are additional hazards that you would like to include, please add them here.			
		More Info	on Mitigation Ideas Book
			My Email HommerSimpson6@aol.com

Hazard Identification for Harrison County

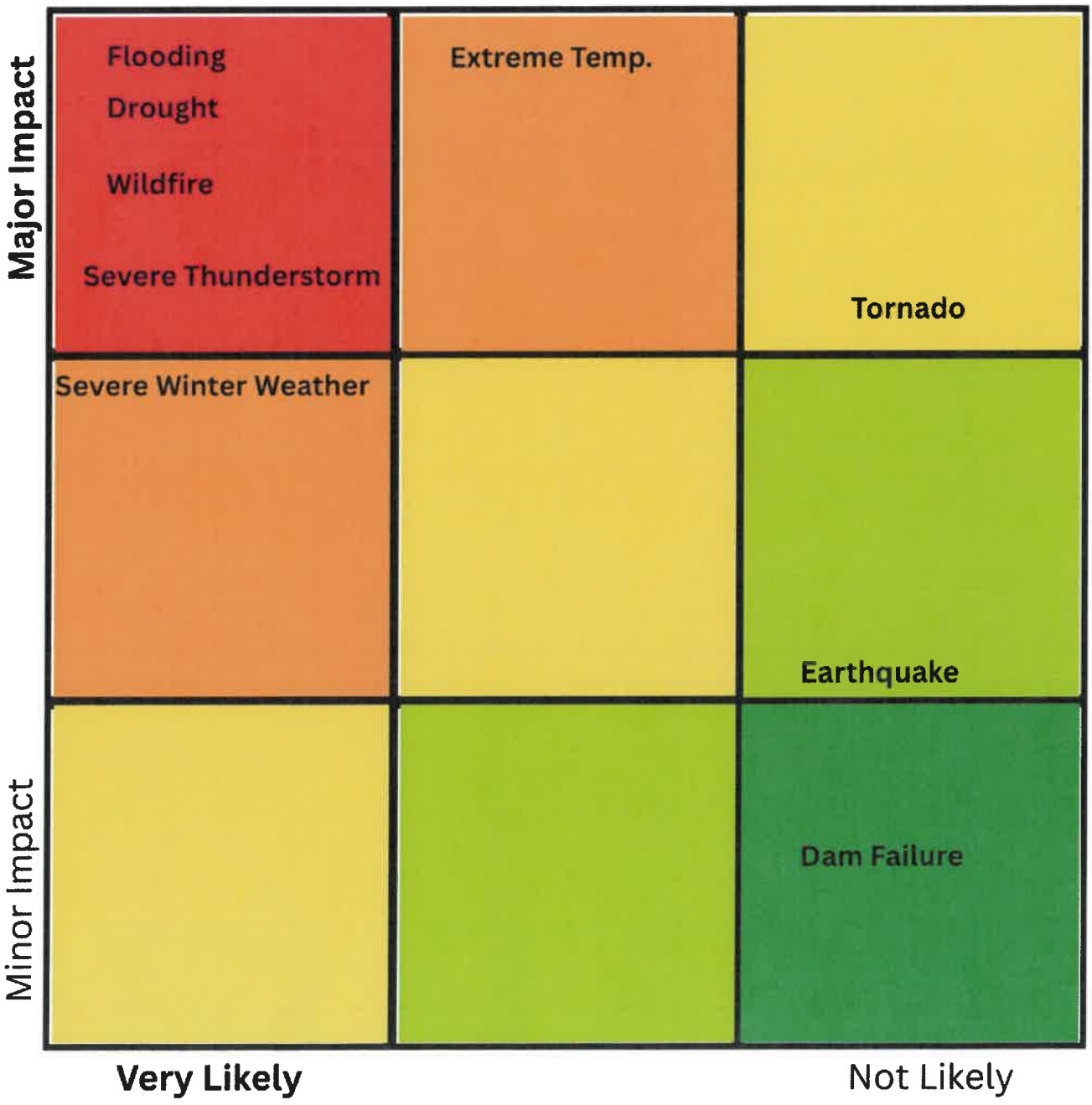
Jurisdiction: City of Bethany

Use this worksheet to identify which hazards can affect your community. Not all hazards apply to the planning area. For the ones that do, describe how they have been an issue in the past, or if they are a future concern.

Instructions: Describe where there may be recurring problems that you would like to see addressed.

Hazard		Is this a hazard for your community? Yes/No	If yes, briefly describe how. Think about specific locations or recurring issues that you know of in your community.
Dam Failure		Yes	US 69 Hwy
Drought		Yes	Surface water
Earthquake		no	
Extreme Temperatures (Hot and Cold)		Yes	Cooling centers
Flood (Riverine & Flash)		Yes	Low Med Flood Plain
Severe Thunderstorms	Hail	Yes	
	Lightning	Yes	
	Severe Wind	Yes	
Severe Winter Weather		Yes	Shelters, Snow Removal, Generators
Tornado		Yes	Shelters -
Wildfire		no	
If there are additional hazards that you would like to include, please add them here.			

Harrison County



Green Hills Regional Planning Commission

For Immediate Release:

Harrison County, MO – The Green Hills Regional Planning Commission (GHRPC) is pleased to announce that the Harrison County Hazard Mitigation Plan (HMP) is now available for public review on the GHRPD website at ghrpc.org. This plan is an important step in reducing the impact of natural hazards in Harrison County and guiding future mitigation activities across the region.

The Hazard Mitigation Plan identifies risks and vulnerabilities and outlines practical steps to lessen the effects of emergencies, including severe weather events such as floods, tornadoes, snowstorms, and thunderstorms. It provides a coordinated approach to emergency preparedness, response, and recovery, ensuring that local governments, residents, and businesses are better equipped to handle potential disasters.

Harrison County residents and stakeholders are encouraged to review the draft plan and provide feedback through the avenues specified on the GHRPC website. Public input is vital to create a robust and actionable plan that accurately reflects the community's needs and priorities. The plan also helps the County and participating municipalities qualify for federal funding for mitigation projects and community safety initiatives.

For more information, or to submit comments, visit the **Green Hills Regional Planning Commission website** at ghrpc.org or contact the Green Hills Regional Planning Commission at 660-359-5636 ext. 11 or email: amanda@ghrpc.org.

Appendix C: Questionnaires, Surveys, & STAPLEE Worksheets

- 2020 Block Geography (US Census Bureau) & National Land Cover Dataset (MRLC)
- American Meteorological Society
- BC Ministry of Forests, Lands, and Natural Resource Operations
- County and local Comprehensive Plans to the extent available
- County Emergency Management
- County Flood Insurance Rate Map, FEMA
- Data Collection Questionnaires completed by each jurisdiction.
- Decennial Census
- DESE
- Department of Geography
- Encyclopedia Britannica, Inc.
- Environmental Protection Agency
- Federal Emergency Management Agency (FEMA)
- Flood Insurance Administration
- Flood Insurance Study, FEMA
- Hazards US (HAZUS)
- Iowa Department of Natural Resources
- Harrison County LEPC
- Missouri Department of Commerce & Insurance
- Missouri Department of Conservation
- Missouri Department of Health and Human Services; health.mo.gov
- Missouri Department of Natural Resources
- Missouri Department of Transportation
- Missouri Division of Fire Marshal Safety
- Missouri Hazard Mitigation Plans (2013, 2018, and 2023)
- Missouri Public Service Commission
- National Agricultural Statistics Service (Agriculture production/losses)
- National Centers for Environmental Information
- National Drought Mitigation Center Drought Reporter
- National Fire Incident Reporting System (NFIRS)
- National Inventory of Dams
- National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information (NCEI);
- National Weather Service
- NFIP Community Status Book
- Oxford Brooks University
- Previously approved Harrison County Hazard Mitigation Plan (2021)
- Purdue University
- SEMA
- SILVIS Lab, Department of Forest Ecology and Management, University of Wisconsin
- State of Missouri GIS data
- Tornado and Storm Research Organization (TORRO)
- United States Geological Survey (USGS)
- US Army Corps of Engineers
- US Bureau of the Census and Annual population estimates

- US Community Survey, 2023
- US Department of Agriculture's (USDA) Risk Management Agency Crop Insurance Statistics
- US Department of Transportation
- US Drought Monitor
- US Fish and Wildlife Service
- www.tornadochaser.net
- www.weather.gov

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Local Governments

COUNTY: HARRISON COUNTY

JURISDICTION: HARRISON COUNTY

RETURN BY:

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: __LEE ANN MILES_____

PHONE: __(660) 425-6424_____

EMAIL: _COUNTYCLERK@HARRISONCOUNTYMO.GOV___

DATE: __11/10/2025_____

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

CAPABILITY ASSESSMENT

& INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan. Although some of this information may have been captured in your previous mitigation plan, it is important to ensure this information is current in the plan update

Please indicate which of the following your jurisdiction has in place. For elements that do not pertain to your type of public entity, please indicate with "N/A". If applicable, please provide a completion date for the element. If your jurisdiction does not have a particular element, and a higher level of government has the authority pertaining to your jurisdiction, please indicate this in the comments column. If your jurisdiction has any of the ***underlined and bold*** elements, ***please provide a copy of the document*** to the contact listed on the front.

CAPABILITIES	***Status, Including Date of Document or Policy***
PLANNING CAPABILITIES	
Comprehensive Plan	Yes
Builder's Plan	No
Capital Improvement Plan	No
City Emergency Operations Plan	N/A
County Emergency Operations Plan	Yes
Local Recovery Plan	N/A
County Recovery Plan	Yes, Section in Emergency Operations Plan
City Mitigation Plan	N/A
County Mitigation Plan	Yes, GHRPC
Debris Management Plan	Yes, Section in Emergency Operations Plan
Economic Development Plan	No

Transportation Plan	No, member of MoDOT TAC
Land-use Plan	No
Flood Mitigation Assistance (FMA) Plan	No
Watershed Plan	Yes
Firewise or other fire mitigation plan	No
School Mitigation Plan	No
Critical Facilities Plan	No
POLICIES/ORDINANCE	
Zoning Ordinance	No
Building Code	No
Floodplain Ordinance	No
Subdivision Ordinance	No
Tree Trimming Ordinance	No
Nuisance Ordinance	No
Stormwater Ordinance	No
Drainage Ordinance	Yes, Concentrated Farm Ordinance – MODNR
Site Plan Review Requirements	No
Historic Preservation Ordinance	No
Landscape Ordinance	No
Seismic Construction Ordinance	No
PROGRAM	
Zoning/Land Use Restrictions	No
Codes Building Site/Design	No
Hazard Awareness Program	No
National Flood Insurance Program (NFIP)	No

NFIP Community Rating System (CRS) program If so, what is your current level rating?	No
National Weather Service (NWS) Storm Ready	No
Firewise Community Certification	No
Building Code Effectiveness Grading (BCEGs)	No
ISO Fire Rating	No
Economic Development Program	No
Land Use Program	No FSA program
Public Education/Awareness	No
Property Acquisition	No
Planning/Zoning Boards	No
Stream Maintenance Program	No
Tree Trimming Program	No
Engineering Studies for Streams (Local/County/Regional)	No
Mutual Aid Agreements	Yes, with Fire Districts and Sheriff's Department
STUDIES/REPORTS/MAPS	
Hazard Analysis/Risk Assessment (Local)	N/A
Hazard Analysis/Risk Assessment (County)	Yes
Flood Insurance Maps	No
FEMA Flood Insurance Study (Detailed)	No
Evacuation Route Map	Yes, within Emergency Operations Plan
Critical Facilities Inventory	Yes, but not current
Vulnerable Population Inventory	No
Land Use Map	No
STAFF/DEPARTMENT *Full Time or Part Time, if applicable?*	

Building Code Official	No
Building Inspector	No
Mapping Specialist (GIS)	Yes, contracted with SAMS
Engineer	No
Development Planner	No
Public Works Official	No
Emergency Management Director	Yes
NFIP Floodplain Administrator	No
Emergency Response Team	No
Hazardous Materials Expert	Yes, Mutual Aid Agreement with Region H
Local Emergency Planning Committee	Yes
County Emergency Management Commission	Yes
Sanitation Department	No
Transportation Department	No
Economic Development Department	No
Housing Department	No
Historic Preservation	No
NON-GOVERNMENTAL ORGANIZATIONS (NGOS) *Is there a local chapter? Yes or No*	
American Red Cross	Yes
Salvation Army	No
Veterans Groups	Yes, American Legion, VFW
Local Environmental Organization	No
Homeowner Associations	No
Neighborhood Associations	No
Chamber of Commerce	Yes, in Bethany
Community Organizations (Lions, Kiwanis, etc.)	Yes (Rotary, KofC, Masons, Eagles, Kiwanas, DAR)

LOCAL FUNDING AVAILABILITY *Answer Yes or No*	
Apply for Community Development Block Grants	Yes, partnership with GHRPC
Fund projects through Capital Improvements funding	Yes
Authority to levy taxes for a specific purpose	Yes
Fees for water, sewer, gas, or electric services	No
Impact fees for new development	No
Ability to incur debt through general obligation bonds	No
Ability to incur debt through special tax bonds	No
Ability to incur debt through private activities	No
Withhold spending in hazard prone areas	No

For plan updates, the plan maintenance process outlined in your previous plan requires all participating jurisdictions to incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate. A key element of effective implementation of mitigation is for the mitigation plan to be incorporated into existing authorities, policies, programs, and resources. Next to each applicable planning mechanism, indicate how your jurisdiction incorporated the previous mitigation plan. If no incorporation has occurred, please explain, including background information detailing any challenges preventing incorporation.

Planning Capabilities	**Method of Incorporation Since Previous Plan or Challenges Preventing Incorporation**
Comprehensive Plan	
Builder's Plan	

Capital Improvement Plan	
Local Recovery Plan	
County Recovery Plan	
Debris Management Plan	
Economic Development Plan	
Transportation Plan	
Land-use Plan	
Watershed Plan	
Firewise or other Fire Mitigation Plan such as Community Wildfire Protection Plan	

Additional Questions

1. How is your government structure organized? (Commission, Mayor/City Council, how many members)

   Commission – Presiding and 2 Associate Commissioners

2. List any past or ongoing public education or information programs, such as for responsible water use, fire safety, household preparedness, or environmental education.

3. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities. Be sure to include pending or approved projects submitted for FEMA mitigation grants.

4. Describe any hazard-related concerns or issues regarding the vulnerability of special needs populations, such as the elderly, disabled, low-income, or migrant farm workers.

5. How many outdoor warning sirens are in your community?

   How are they activated (indicate responsible department/personnel)?

6. Does your community utilize any other warning systems such as Cable Override, Reverse 911, etc? If so, please describe.

7. Does your community have designated public tornado shelters/saferooms? If so, are they constructed in accordance with FEMA standards?

   Please provide address locations:

8. List residential, commercial and industrial development in your jurisdiction since last plan update.

9. Describe development trends and expected growth areas. Is any new development expected to occur in the 100-year floodplain? Is any new development expected to occur in any other known hazard areas? If possible, please provide a map indicating potential/planned growth areas.

10. Are any new facilities or infrastructure planned for construction during the next five years? If so, please provide facility name and purpose along with proposed locations, if known.

11. Please list major employers in your jurisdiction with an estimated number of employees.

12. Please list Mitigation Planning Committee members who served during the development of the previously approved plan. Was the process set forth for monitoring the implementation of the previously approved mitigation plan adhered to? Did the Committee meet as was specified in the previously approved plan? Why or why not?

13. Describe your jurisdiction's participation in the NFIP. Include information about how compliance with the NFIP is enforced locally.

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA's HAZUS-MH loss estimation software uses the following three categories of critical assets. ***Essential facilities*** are those that if damaged would have devastating impacts on disaster response and/or recovery. ***High potential loss facilities*** are those that would have a high loss or impact on the community. ***Transportation and lifeline facilities*** are third category of critical assets; examples are provided below.

Essential Facilities	**High Potential Loss Facilities**	**Transportation and Lifeline**
Hospitals and other medical facilities Police stations Fire station Emergency Operations Centers	Power plants Dams/levees Military installations Hazardous material sites Schools Shelters Day care centers Nursing homes Main government buildings	Highways, bridges, and tunnels Railroads and facilities Bus facilities Airports Water treatment facilities Natural gas facilities and pipelines Oil facilities and pipelines Communications facilities

Economic Assets

Economic assets at risk may include major employers or primary economic sectors, such as agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from disaster.

Asset Inventory

Please list critical facilities and other community assets, the square feet, values, and occupancy/capacity. If not applicable, enter "N/A". In the last column, use the codes from the previous page to indicate hazards to which the asset is vulnerable. Add as many rows as needed. If this information is available in GIS format, please provide to the contact listed on the first page.

Critical Facilities

Name of Asset	Address	Natural Hazards
Essential Facilities such as hospitals and other medical facilities, police and fire stations, Emergency Operations Centers		

High Potential Loss Facilities such as power plants, dams/levees, military installations, hazardous materials sites, shelters, day care centers, nursing homes, main government buildings (Do not include schools – they will be reported by the school districts)		
Transportation and Lifelines such as highways, bridges, and tunnels; railroads and facilities, bus facilities, airports, water treatment facilities, natural gas facilities and pipelines, oil facilities and pipelines, communications facilities		

Economic Assets (Major Employers, etc.)

Asset	Address	Product/Service	Number of Employees	Hazards

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. *Make as many copies as necessary to record all events and complete them with as much detail as possible.* This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction	
Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Source of information	
Comments	

Assessment of Previously Proposed Actions

Jurisdiction: _____

Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksheet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

The worksheet should include information on the status of the action and progress made in implementation, if any. This includes:

- *Completed Actions:* provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- *Ongoing Actions:* indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- *No Progress:* if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).*

#	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – ✓ Delete – X Modify – M
		Complete	Ongoing	No Progress		
County 2021.1	County wide safe rooms and storm shelters					
County 2021.2	SAFETY AUDIT AND SELF-INSPECTION TRAINING FOR CRITICAL FACILITIES					
County 2021.3	Mitigation Education				Modified to change to mitigation education	M
County 2021.4	SNOW REMOVAL					
County 2021.5	PUBLIC EDUCATION FOR EARLY WARNING SYSTEMS					
County 2021.6	COUNTY-WIDE DISASTER DRILLS AND EXERCISES					
County 2021.7	STRUCTURE GRANTS FOR ROAD AND BRIDGE UPGRADES					
County 2021.8	WEATHER SPOTTER TRAINING					
County 2021.9	CRITICAL FACILITIES BACK-UP					
County 2021.10	CONSTRUCTION UPGRADES TO PROTECT INFRASTRUCTURE					

County 2021.11	DEBRIS REMOVAL					
County 2021.12	ACCESSIBLE CONTACT INFORMATION					
County 2021.13	MUTUAL AID AGREEMENTS					
County 2021.14	PUBLIC REVIEW OF HAZARD MITIGATION PLANS	x			Completed as part of 2026 plan update	C
County 2021.15	PLAN REASSESSMENT	x			Completed as part of 2026 plan update	C
County 2021.16	WARNING SIREN COVERAGE					
County 2021.17	TREE TRIMMING MAINTENANCE					
County 2021.18	PANDEMIC PERSONAL PROTECTIVE EQUIPMENT (PPE)				No longer covered in plan	X
County 2021.19	PANDEMIC RESPONSE / DISEASE PREVENTION AND MANAGEMENT				No longer covered in plan	X
County 2021.20	ECONOMIC STABILIZATION DURING PANDEMIC				No longer covered in plan	X
County 2021.21	CREATION OF A COUNTY-LEVEL MUNICIPALITY COMMITTEE					

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Local Governments

COUNTY: HARRISON COUNTY

JURISDICTION: CITY OF BETHANY

RETURN BY:

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. *A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.* According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process *will not* be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: JACOB DUNN

PHONE: 660 425 7912

EMAIL: fire@bethanymo.com DATE: 4-14-25

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

CAPABILITY ASSESSMENT

& INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan. Although some of this information may have been captured in your previous mitigation plan, it is important to ensure this information is current in the plan update

Please indicate which of the following your jurisdiction has in place. For elements that do not pertain to your type of public entity, please indicate with "N/A". If applicable, please provide a completion date for the element. If your jurisdiction does not have a particular element, and a higher level of government has the authority pertaining to your jurisdiction, please indicate this in the comments column. If your jurisdiction has any of the ***underlined and bold*** elements, ***please provide a copy of the document*** to the contact listed on the front.

CAPABILITIES	*Status, Including Date of Document or Policy*
PLANNING CAPABILITIES	
Comprehensive Plan	
Builder's Plan	
Capital Improvement Plan	
City Emergency Operations Plan	Yes - 2015
County Emergency Operations Plan	Yes - UNL 04/16
Local Recovery Plan	
County Recovery Plan	
City Mitigation Plan	Yes
County Mitigation Plan	Yes
Debris Management Plan	
Economic Development Plan	
Transportation Plan	
Land-use Plan	
Flood Mitigation Assistance (FMA) Plan	Yes - 2025 ORDINACE
Watershed Plan	
Firewise or other fire mitigation plan	
School Mitigation Plan	
Critical Facilities Plan	

POLICIES/ORDINANCE	
Zoning Ordinance	Yes - 2014
Building Code	Yes. 2015
Floodplain Ordinance	Yes. 2026
Subdivision Ordinance	Yes - 2014
Tree Trimming Ordinance	Yes
Nuisance Ordinance	Yes - 2014
Stormwater Ordinance	Yes
Drainage Ordinance	Yes
Site Plan Review Requirements	Yes - 2015
Historic Preservation Ordinance	
Landscape Ordinance	
Seismic Construction Ordinance	Yes - 2015
PROGRAM	
Zoning/Land Use Restrictions	Yes - 2014
Codes Building Site/Design	Yes - 2015
Hazard Awareness Program	Yes - 2012
National Flood Insurance Program (NFIP)	Yes 2025
NFIP Community Rating System (CRS) program If so, what is your current level rating?	
National Weather Service (NWS) Storm Ready	
Firewise Community Certification	
Building Code Effectiveness Grading (BCEGs)	
ISO Fire Rating	5
Economic Development Program	
Land Use Program	Yes
Public Education/Awareness	
Property Acquisition	Yes
Planning/Zoning Boards	Yes
Stream Maintenance Program	
Tree Trimming Program	
Engineering Studies for Streams (Local/County/Regional)	
Mutual Aid Agreements	Yes - 2015
STUDIES/REPORTS/MAPS	
Hazard Analysis/Risk Assessment (Local)	Yes
Hazard Analysis/Risk Assessment (County)	Yes

Flood Insurance Maps	Yes
FEMA Flood Insurance Study (Detailed)	Yes
Evacuation Route Map	
Critical Facilities Inventory	
Vulnerable Population Inventory	
Land Use Map	Yes Zoning map GIS
STAFF/DEPARTMENT *Full Time or Part Time, if applicable?*	
Building Code Official	Full - Fire Chief
Building Inspector	Full - Fire Chief
Mapping Specialist (GIS)	
Engineer	
Development Planner	
Public Works Official	Full
Emergency Management Director	Full - Fire Chief
NFIP Floodplain Administrator	Full - Fire Chief
Emergency Response Team	Full - Fire Chief
Hazardous Materials Expert	~~None~~
Local Emergency Planning Committee	
County Emergency Management Commission	
Sanitation Department	Contracted
Transportation Department	
Economic Development Department	
Housing Department	
Historic Preservation	
NON-GOVERNMENTAL ORGANIZATIONS (NGOS) *Is there a local chapter? Yes or No*	
American Red Cross	Yes
Salvation Army	
Veterans Groups	Yes
Local Environmental Organization	
Homeowner Associations	
Neighborhood Associations	
Chamber of Commerce	Yes
Community Organizations (Lions, Kiwanis, etc.)	Yes
LOCAL FUNDING AVAILABILITY *Answer Yes or No*	

Apply for Community Development Block Grants	Yes
Fund projects through Capital Improvements funding	Yes
Authority to levy taxes for a specific purpose	Yes
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	
Ability to incur debt through general obligation bonds	
Ability to incur debt through special tax bonds	
Ability to incur debt through private activities	
Withhold spending in hazard prone areas	

For plan updates, the plan maintenance process outlined in your previous plan requires all participating jurisdictions to incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate. A key element of effective implementation of mitigation is for the mitigation plan to be incorporated into existing authorities, policies, programs, and resources. Next to each applicable planning mechanism, indicate how your jurisdiction incorporated the previous mitigation plan. If no incorporation has occurred, please explain, including background information detailing any challenges preventing incorporation.

Planning Capabilities	Method of Incorporation Since Previous Plan or Challenges Preventing Incorporation
Comprehensive Plan	
Builder's Plan	
Capital Improvement Plan	
Local Recovery Plan	
County Recovery Plan	
Debris Management Plan	
Economic Development Plan	
Transportation Plan	
Land-use Plan	
Watershed Plan	

Firewise or other Fire Mitigation Plan such as Community Wildfire Protection Plan	

Additional Questions

1. How is your government structure organized? (Commission, Mayor/City Council, how many members)

   MAYOR, 4 COUNCILMEN

2. List any past or ongoing public education or information programs, such as for responsible water use, fire safety, household preparedness, or environmental education.

   ANNUAL FIRE SAFETY PRESENTATIONS FOR SCHOOL

3. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities. Be sure to include pending or approved projects submitted for FEMA mitigation grants.

4. Describe any hazard-related concerns or issues regarding the vulnerability of special needs populations, such as the elderly, disabled, low-income, or migrant farm workers.

5. How many outdoor warning sirens are in your community? 5

   How are they activated (indicate responsible department/personnel)?

   DISPATCH

6. Does your community utilize any other warning systems such as Cable Override, Reverse 911, etc? If so, please describe. YES. DISPATCH

7. Does your community have designated public tornado shelters/saferooms? If so, are they constructed in accordance with FEMA standards?

   YES. NOT SURE

   Please provide address locations:

   LOWER LEVEL OF COURT HOUSE

8. List residential, commercial and industrial development in your jurisdiction since last plan update.

   HOSPITAL

9. Describe development trends and expected growth areas. Is any new development expected to occur in the 100-year floodplain? Is any new development expected to occur in any other known hazard areas? If possible, please provide a map indicating potential/planned growth areas.

10. Are any new facilities or infrastructure planned for construction during the next five years? If so, please provide facility name and purpose along with proposed locations, if known.

11. Please list major employers in your jurisdiction with an estimated number of employees.

    PENN JOHN AUTO
    WAL MART
    TRACTOR SUPPLY
    CASEY'S
    HYVEE

12. Please list Mitigation Planning Committee members who served during the development of the previously approved plan. Was the process set forth for monitoring the implementation of the previously approved mitigation plan adhered to? Did the Committee meet as was specified in the previously approved plan? Why or why not?

JACOB DeHOM

13. Describe your jurisdiction's participation in the NFIP. Include information about how compliance with the NFIP is enforced locally.

ATTEND ANNUAL CONF.

REVIEW FIRM MAPS

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards

Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail,

lightning) – ST

Earthquake – EQ

Severe Winter Weather (incl. snow, ice, severe cold) – SWW

Land Subsidence /Sinkholes – LSS

Tornadoes – T

Wildfire - W

Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA's HAZUS-MH loss estimation software uses the following three categories of critical assets. ***Essential facilities*** are those that if damaged would have devastating impacts on disaster response and/or recovery. ***High potential loss facilities*** are those that would have a high loss or impact on the community. ***Transportation and lifeline facilities*** are third category of critical assets; examples are provided below.

Essential Facilities	High Potential Loss Facilities	Transportation and Lifeline
Hospitals and other medical facilities Police stations Fire station Emergency Operations Centers	Power plants Dams/levees Military installations Hazardous material sites Schools Shelters Day care centers Nursing homes Main government buildings	Highways, bridges, and tunnels Railroads and facilities Bus facilities Airports Water treatment facilities Natural gas facilities and pipelines Oil facilities and pipelines Communications facilities

Economic Assets

Economic assets at risk may include major employers or primary economic sectors, such as agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from disaster.

□

Asset Inventory

Please list critical facilities and other community assets, the square feet, values, and occupancy/capacity. If not applicable, enter "N/A". In the last column, use the codes from the previous page to indicate hazards to which the asset is vulnerable. Add as many rows as needed. If this information is available in GIS format, please provide to the contact listed on the first page.

Critical Facilities

Name of Asset	Address	Natural Hazards

Essential Facilities such as hospitals and other medical facilities, police and fire stations, Emergency Operations Centers

LAW Enforcement Center
HOSP.
City HALL
Fire Stations
NORTH MO EMS
County Court House

High Potential Loss Facilities such as power plants, dams/levees, military installations, hazardous materials sites, shelters, day care centers, nursing homes, main government buildings (Do not include schools – they will be reported by the school districts)

NATIONAL GUARD Post
County Court House

Transportation and Lifelines such as highways, bridges, and tunnels; railroads and facilities, bus facilities, airports, water treatment facilities, natural gas facilities and pipelines, oil facilities and pipelines, communications facilities

US 136
US 69
US 13
I-35

Economic Assets (Major Employers, etc.)

Asset	Address	Product/Service	Number of Employees	Hazards

□

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. ***Make as many copies as necessary to record all events and complete them with as much detail as possible.*** This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction
Type of event
Nature and magnitude of event
Location
Date of event
Injuries
Deaths
Property damage
Infrastructure damage
Crop damage
Business/economic impacts

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).*

#	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – Ü Delete – X Modify – M
		Complete	Ongoing	No Progress		
CB 2021.1	HAZARD EDUCATION FOR THOSE INVOLVED IN LAND DEVELOPMENT		Y			
CB 2021.2	WEATHER ALERTS		Y			
CB 2021.3	ACCESSIBLE CONTACT INFORMATION		Y			
CB 2021.4	CRITICAL FACILITIES BACK-UP		Y			
CB 2021.5	DEBRIS REMOVAL & REGULAR BRUSH CLEARING		X			
CB 2021.6	EMERGENCY PREPAREDNESS EDUCATION				Will be changed to mitigation education	M
CB 2021.7	MUTUAL AID AGREEMENTS		Y			
CB 2021.8	STORM SHELTERS/SAFE ROOM		X			
CB 2021.9	WEATHER SPOTTER TRAINING		Y			
CB 2021.10	REPRESENTATIVE FOR COUNTY HAZARD MITIGATION STEERING COMMITTEE	x			Completed in 2026 plan update	
CB 2021.11	PANDEMIC PERSONAL PROTECTIVE EQUIPMENT (PPE)					x
CB 2021.12	PANDEMIC RESPONSE / DISEASE PREVENTION AND MANAGEMENT					x
CB 2021.13	ECONOMIC STABILIZATION DURING PANDEMIC					x
CB 2021.14	VULNERABLE POPULATION IDENTIFICATION					
CB 2021.15	PARTICIPATION IN NFIP (National Floodplain Insurance Program)					
CB 2021.1	HAZARD EDUCATION FOR THOSE INVOLVED IN LAND DEVELOPMENT					
CB 2021.2	WEATHER ALERTS					
CB	ACCESSIBLE CONTACT					

Road/school/other closures
Other damage
Insured losses
Federal/state disaster relief funding
Source of information
Comments

Assessment of Previously Proposed Actions

Jurisdiction:

Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksheet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

The worksheet should include information on the status of the action and progress made in implementation, if any. This includes:

- ***Completed Actions:*** provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- ***Ongoing Actions:*** indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- ***No Progress:*** if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

2021.3	INFORMATION					
CB 2021.4	CRITICAL FACILITIES BACK-UP		Y			
CB 2021.5	DEBRIS REMOVAL & REGULAR BRUSH CLEARING		Y			
CB 2021.6	EMERGENCY PREPAREDNESS EDUCATION		Y		Will be changed to mitigation education	M

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Local Governments

COUNTY: HARRISON COUNTY

JURISDICTION: BLYTHEDALE ~~COUNTY~~

RETURN BY:

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: __TREASURER_____

PHONE: __(660) 373-1221_____

EMAIL: ____ VOB1880@GMAIL.COM

DATE: __11/12/2025_____

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

CAPABILITY ASSESSMENT

& INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan. Although some of this information may have been captured in your previous mitigation plan, it is important to ensure this information is current in the plan update

Please indicate which of the following your jurisdiction has in place. For elements that do not pertain to your type of public entity, please indicate with "N/A". If applicable, please provide a completion date for the element. If your jurisdiction does not have a particular element, and a higher level of government has the authority pertaining to your jurisdiction, please indicate this in the comments column. If your jurisdiction has any of the ***underlined and bold*** elements, ***please provide a copy of the document*** to the contact listed on the front.

CAPABILITIES	***Status, Including Date of Document or Policy***
PLANNING CAPABILITIES	
Comprehensive Plan	No
Builder's Plan	No
Capital Improvement Plan	No
City Emergency Operations Plan	No
County Emergency Operations Plan	Yes
Local Recovery Plan	No
County Recovery Plan	Yes, Section in Emergency Operations Plan
City Mitigation Plan	No
County Mitigation Plan	Yes, GHRPC
Debris Management Plan	No
Economic Development Plan	No

Transportation Plan	No
Land-use Plan	No
Flood Mitigation Assistance (FMA) Plan	No
Watershed Plan	No
Firewise or other fire mitigation plan	No
School Mitigation Plan	No
Critical Facilities Plan	No
POLICIES/ORDINANCE	
Zoning Ordinance	No
Building Code	No
Floodplain Ordinance	No
Subdivision Ordinance	No
Tree Trimming Ordinance	Yes
Nuisance Ordinance	Yes
Stormwater Ordinance	No
Drainage Ordinance	No
Site Plan Review Requirements	No
Historic Preservation Ordinance	No
Landscape Ordinance	Yes, grass and shrub control
Seismic Construction Ordinance	No
PROGRAM	
Zoning/Land Use Restrictions	No
Codes Building Site/Design	No
Hazard Awareness Program	No
National Flood Insurance Program (NFIP)	No

NFIP Community Rating System (CRS) program If so, what is your current level rating?	No
National Weather Service (NWS) Storm Ready	No
Firewise Community Certification	No
Building Code Effectiveness Grading (BCEGs)	No
ISO Fire Rating	No
Economic Development Program	No
Land Use Program	No
Public Education/Awareness	No
Property Acquisition	No
Planning/Zoning Boards	No
Stream Maintenance Program	No
Tree Trimming Program	No
Engineering Studies for Streams (Local/County/Regional)	No
Mutual Aid Agreements	Yes, in North Harrison Fire District, ambulance district, etc.
STUDIES/REPORTS/MAPS	
Hazard Analysis/Risk Assessment (Local)	N/A
Hazard Analysis/Risk Assessment (County)	No
Flood Insurance Maps	Yes
FEMA Flood Insurance Study (Detailed)	No
Evacuation Route Map	No
Critical Facilities Inventory	No
Vulnerable Population Inventory	No
Land Use Map	No
STAFF/DEPARTMENT *Full Time or Part Time, if applicable?*	

Building Code Official	No
Building Inspector	No
Mapping Specialist (GIS)	No
Engineer	No
Development Planner	No
Public Works Official	No
Emergency Management Director	Yes-county EMD
NFIP Floodplain Administrator	No
Emergency Response Team	No
Hazardous Materials Expert	Yes, Mutual Aid Agreement with Region H
Local Emergency Planning Committee	No
County Emergency Management Commission	No
Sanitation Department	Yes
Transportation Department	No
Economic Development Department	No
Housing Department	No
Historic Preservation	No
NON-GOVERNMENTAL ORGANIZATIONS (NGOS) *Is there a local chapter? Yes or No*	
American Red Cross	No
Salvation Army	No
Veterans Groups	No
Local Environmental Organization	No
Homeowner Associations	No
Neighborhood Associations	No
Chamber of Commerce	No
Community Organizations (Lions, Kiwanis, etc.)	No

LOCAL FUNDING AVAILABILITY *Answer Yes or No*	
Apply for Community Development Block Grants	Yes, partnership with GHRPC
Fund projects through Capital Improvements funding	No
Authority to levy taxes for a specific purpose	Unknown
Fees for water, sewer, gas, or electric services	Yes-water and sewer
Impact fees for new development	No
Ability to incur debt through general obligation bonds	Yes
Ability to incur debt through special tax bonds	No
Ability to incur debt through private activities	No
Withhold spending in hazard prone areas	No

For plan updates, the plan maintenance process outlined in your previous plan requires all participating jurisdictions to incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate. A key element of effective implementation of mitigation is for the mitigation plan to be incorporated into existing authorities, policies, programs, and resources. Next to each applicable planning mechanism, indicate how your jurisdiction incorporated the previous mitigation plan. If no incorporation has occurred, please explain, including background information detailing any challenges preventing incorporation.

Planning Capabilities	**Method of Incorporation Since Previous Plan or Challenges Preventing Incorporation**
Comprehensive Plan	n/a
Builder's Plan	n/a

Capital Improvement Plan	n/a
Local Recovery Plan	n/a
County Recovery Plan	n/a
Debris Management Plan	n/a
Economic Development Plan	CEDS - GHRPC
Transportation Plan	Regional Transportation Plan - GHRPC
Land-use Plan	n/a
Watershed Plan	n/a
Firewise or other Fire Mitigation Plan such as Community Wildfire Protection Plan	n/a

Additional Questions

1. How is your government structure organized? (Commission, Mayor/City Council, how many members)
   Chairman and Board of Trustees (4 board members), Secretary & Treasurer

   Paperwork handled by another jurisdiction (City Clerk in Eagleville)

2. List any past or ongoing public education or information programs, such as for responsible water use, fire safety, household preparedness, or environmental education.
   n/a

3. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities. Be sure to include pending or approved projects submitted for FEMA mitigation grants.
   n/a

4. Describe any hazard-related concerns or issues regarding the vulnerability of special needs populations, such as the elderly, disabled, low-income, or migrant farm workers.

   Lack of cooling and heating for elderly residents in the event of a long-term power outage.

5. How many outdoor warning sirens are in your community? 1

   How are they activated (indicate responsible department/personnel)?

   May be tied in with Eagleville's siren

6. Does your community utilize any other warning systems such as Cable Override, Reverse 911, etc? If so, please describe. No

7. Does your community have designated public tornado shelters/saferooms? If so, are they constructed in accordance with FEMA standards? no

   Please provide address locations:

8. List residential, commercial and industrial development in your jurisdiction since last plan update. no

9. Describe development trends and expected growth areas. Is any new development expected to occur in the 100-year floodplain? Is any new development expected to occur in any other known hazard areas? If possible, please provide a map indicating potential/planned growth areas.
   Population expected to decline, no planed/potential growth areas.

10. Are any new facilities or infrastructure planned for construction during the next five years? If so, please provide facility name and purpose along with proposed locations, if known.
No

11. Please list major employers in your jurisdiction with an estimated number of employees.
No

12. Please list Mitigation Planning Committee members who served during the development of the previously approved plan. Was the process set forth for monitoring the implementation of the previously approved mitigation plan adhered to? Did the Committee meet as was specified in the previously approved plan? Why or why not?
Blythedale did not participate in the last update.

13. Describe your jurisdiction's participation in the NFIP. Include information about how compliance with the NFIP is enforced locally.

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA's HAZUS-MH loss estimation software uses the following three categories of critical assets. ***Essential facilities*** are those that if damaged would have devastating impacts on disaster response and/or recovery. ***High potential loss facilities*** are those that would have a high loss or impact on the community. ***Transportation and lifeline facilities*** are third category of critical assets; examples are provided below.

Essential Facilities	**High Potential Loss Facilities**	**Transportation and Lifeline**
Hospitals and other medical facilities Police stations Fire station Emergency Operations Centers	Power plants Dams/levees Military installations Hazardous material sites Schools Shelters Day care centers Nursing homes Main government buildings	Highways, bridges, and tunnels Railroads and facilities Bus facilities Airports Water treatment facilities Natural gas facilities and pipelines Oil facilities and pipelines Communications facilities

Economic Assets

Economic assets at risk may include major employers or primary economic sectors, such as agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from disaster.

Asset Inventory

Please list critical facilities and other community assets, the square feet, values, and occupancy/capacity. If not applicable, enter "N/A". In the last column, use the codes from the previous page to indicate hazards to which the asset is vulnerable. Add as many rows as needed. If this information is available in GIS format, please provide to the contact listed on the first page.

Critical Facilities

Name of Asset	Address	Natural Hazards
Essential Facilities such as hospitals and other medical facilities, police and fire stations, Emergency Operations Centers		

High Potential Loss Facilities such as power plants, dams/levees, military installations, hazardous materials sites, shelters, day care centers, nursing homes, main government buildings (Do not include schools – they will be reported by the school districts)		
Transportation and Lifelines such as highways, bridges, and tunnels; railroads and facilities, bus facilities, airports, water treatment facilities, natural gas facilities and pipelines, oil facilities and pipelines, communications facilities		

Economic Assets (Major Employers, etc.)

Asset	Address	Product/Service	Number of Employees	Hazards

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. *Make as many copies as necessary to record all events and complete them with as much detail as possible.* This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction	
Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Source of information	
Comments	

Assessment of Previously Proposed Actions

Jurisdiction: _____

Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksheet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

The worksheet should include information on the status of the action and progress made in implementation, if any. This includes:

- *Completed Actions:* provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- *Ongoing Actions:* indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- *No Progress:* if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).*

#	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – ✓ Delete – X Modify – M
		Complete	Ongoing	No Progress		
	Explore heating/cooling center to address prolonged power outage					

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Local Governments

COUNTY: Harrison

JURISDICTION: City of Cainsville

RETURN BY: Rebecca Deskins

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: Rebecca Deskins

PHONE: (660) 893-5315

EMAIL: Council@gem.net DATE: 10-9-25

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

CAPABILITY ASSESSMENT

& INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan. Although some of this information may have been captured in your previous mitigation plan, it is important to ensure this information is current in the plan update

Please indicate which of the following your jurisdiction has in place. For elements that do not pertain to your type of public entity, please indicate with "N/A". If applicable, please provide a completion date for the element. If your jurisdiction does not have a particular element, and a higher level of government has the authority pertaining to your jurisdiction, please indicate this in the comments column. If your jurisdiction has any of the *underlined and bold* elements, *please provide a copy of the document* to the contact listed on the front.

CAPABILITIES	*Status, Including Date of Document or Policy*
PLANNING CAPABILITIES	
Comprehensive Plan	
Builder's Plan	
Capital Improvement Plan	
City Emergency Operations Plan	yes
County Emergency Operations Plan	yes
Local Recovery Plan	
County Recovery Plan	
City Mitigation Plan	
County Mitigation Plan	
Debris Management Plan	
Economic Development Plan	
Transportation Plan	
Land-use Plan	

Flood Mitigation Assistance (FMA) Plan	
Watershed Plan	
Firewise or other fire mitigation plan	
School Mitigation Plan	
Critical Facilities Plan	
POLICIES/ORDINANCE	
Zoning Ordinance	NO
Building Code	Building Application
Floodplain Ordinance	Yes
Subdivision Ordinance	NO
Tree Trimming Ordinance	NO
Nuisance Ordinance	Yes
Stormwater Ordinance	
Drainage Ordinance	
Site Plan Review Requirements	
Historic Preservation Ordinance	NO
Landscape Ordinance	NO
Seismic Construction Ordinance	NO
PROGRAM	
Zoning/Land Use Restrictions	N/A
Codes Building Site/Design	Ordinance
Hazard Awareness Program	N/A
National Flood Insurance Program (NFIP)	Ordinance
NFIP Community Rating System (CRS) program If so, what is your current level rating?	
National Weather Service (NWS) Storm Ready	Yes

Firewise Community Certification	
Building Code Effectiveness Grading (BCEGs)	
ISO Fire Rating	8
Economic Development Program	
Land Use Program	
Public Education/Awareness	
Property Acquisition	
Planning/Zoning Boards	N/A
Stream Maintenance Program	
Tree Trimming Program	
Engineering Studies for Streams (Local/County/Regional)	
Mutual Aid Agreements	Through Louisville Fire Protection
STUDIES/REPORTS/MAPS	
Hazard Analysis/Risk Assessment (Local)	
Hazard Analysis/Risk Assessment (County)	
Flood Insurance Maps	Yes
FEMA Flood Insurance Study (Detailed)	
Evacuation Route Map	
Critical Facilities Inventory	
Vulnerable Population Inventory	
Land Use Map	
STAFF/DEPARTMENT *Full Time or Part Time, if applicable?*	
Building Code Official	N/A
Building Inspector	N/A
Mapping Specialist (GIS)	N/A

Engineer	N/A
Development Planner	N/A
Public Works Official	Dusty Ellsworth
Emergency Management Director	N/A
NFIP Floodplain Administrator	Rebecca Deskins
Emergency Response Team	N/A
Hazardous Materials Expert	N/A
Local Emergency Planning Committee	City Council
County Emergency Management Commission	County Commissioners
Sanitation Department	Dusty Ellsworth
Transportation Department	Dusty Ellsworth
Economic Development Department	N/A
Housing Department	N/A
Historic Preservation	Cainsville Community Betterment

NON-GOVERNMENTAL ORGANIZATIONS (NGOS)

Is there a local chapter? Yes or No

American Red Cross	NO
Salvation Army	NO
Veterans Groups	NO
Local Environmental Organization	NO
Homeowner Associations	NO
Neighborhood Associations	NO
Chamber of Commerce	NO
Community Organizations (Lions, Kiwanis, etc.)	American Legion

LOCAL FUNDING AVAILABILITY

Answer Yes or No

Apply for Community Development Block Grants	NO
Fund projects through Capital Improvements funding	NO
Authority to levy taxes for a specific purpose	Yes
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	NO
Ability to incur debt through general obligation bonds	Yes
Ability to incur debt through special tax bonds	Yes
Ability to incur debt through private activities	Yes
Withhold spending in hazard prone areas	NO

For plan updates, the plan maintenance process outlined in your previous plan requires all participating jurisdictions to incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate. A key element of effective implementation of mitigation is for the mitigation plan to be incorporated into existing authorities, policies, programs, and resources. Next to each applicable planning mechanism, indicate how your jurisdiction incorporated the previous mitigation plan. If no incorporation has occurred, please explain, including background information detailing any challenges preventing incorporation.

Planning Capabilities	**Method of Incorporation Since Previous Plan or Challenges Preventing Incorporation**
Comprehensive Plan	
Builder's Plan	
Capital Improvement Plan	

Local Recovery Plan	
County Recovery Plan	
Debris Management Plan	
Economic Development Plan	
Transportation Plan	
Land-use Plan	
Watershed Plan	
Firewise or other Fire Mitigation Plan such as Community Wildfire Protection Plan	

Additional Questions

1. How is your government structure organized? (Commission, Mayor/City Council, how many members) Mayor/City Council 1/4

2. List any past or ongoing public education or information programs, such as for responsible water use, fire safety, household preparedness, or environmental education.

3. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities. Be sure to include pending or approved projects submitted for FEMA mitigation grants.

N/A

4. Describe any hazard-related concerns or issues regarding the vulnerability of special needs populations, such as the elderly, disabled, low-income, or migrant farm workers.

5. How many outdoor warning sirens are in your community? 1

   How are they activated (indicate responsible department/personnel)?

6. Does your community utilize any other warning systems such as Cable Override, Reverse 911, etc? If so, please describe. Active 911

7. Does your community have designated public tornado shelters/saferooms? If so, are they constructed in accordance with FEMA standards? NO

   Please provide address locations:

8. List residential, commercial and industrial development in your jurisdiction since last plan update. N/A

9. Describe development trends and expected growth areas. Is any new development expected to occur in the 100-year floodplain? Is any new development expected to occur in any other known hazard areas? If possible, please provide a map indicating potential/planned growth areas. NO

10. Are any new facilities or infrastructure planned for construction during the next five years? If so, please provide facility name and purpose along with proposed locations, if known. NO

11. Please list major employers in your jurisdiction with an estimated number of employees.

Cainsville R-1 School - 35
NEW Co-op - 5
Cainsville Medical Clinic - 3

12. Please list Mitigation Planning Committee members who served during the development of the previously approved plan. Was the process set forth for monitoring the implementation of the previously approved mitigation plan adhered to? Did the Committee meet as was specified in the previously approved plan? Why or why not?

13. Describe your jurisdiction's participation in the NFIP. Include information about how compliance with the NFIP is enforced locally.

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA's HAZUS-MH loss estimation software uses the following three categories of critical assets. ***Essential facilities*** are those that if damaged would have devastating impacts on disaster response and/or recovery. ***High potential loss facilities*** are those that would have a high loss or impact on the community. ***Transportation and lifeline facilities*** are third category of critical assets; examples are provided below.

Essential Facilities	**High Potential Loss Facilities**	**Transportation and Lifeline**
Hospitals and other medical facilities Police stations Fire station Emergency Operations Centers	Power plants Dams/levees Military installations Hazardous material sites Schools Shelters Day care centers Nursing homes Main government buildings	Highways, bridges, and tunnels Railroads and facilities Bus facilities Airports Water treatment facilities Natural gas facilities and pipelines Oil facilities and pipelines Communications facilities

Economic Assets

Economic assets at risk may include major employers or primary economic sectors, such as agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from disaster.

Asset Inventory

Please list critical facilities and other community assets, the square feet, values, and occupancy/capacity. If not applicable, enter "N/A". In the last column, use the codes from the previous page to indicate hazards to which the asset is vulnerable. Add as many rows as needed. If this information is available in GIS format, please provide to the contact listed on the first page.

Critical Facilities

Name of Asset	Address	Natural Hazards
Essential Facilities such as hospitals and other medical facilities, police and fire stations, Emergency Operations Centers		
Carnsville City Hall	1430 Old Mill Rd	EQ, St, Sw, T
Fire Station	605 Main St	" "
Carnsville Medical Clinic	707 Victory Lane	" "
Carnsville Comm Bldg	605 Louise	" "
Carnsville K-1 School	1308 Main Street	" "

High Potential Loss Facilities such as power plants, dams/levees, military installations, hazardous materials sites, shelters, day care centers, nursing homes, main government buildings (Do not include schools – they will be reported by the school districts)		
Transportation and Lifelines such as highways, bridges, and tunnels; railroads and facilities, bus facilities, airports, water treatment facilities, natural gas facilities and pipelines, oil facilities and pipelines, communications facilities		
Rt N, B, & U		EQ, St, SCW, T, RF
Thompson River Bridge		" "
Evergy Substation		" "
CMU - Water Pump Station		" "

Economic Assets (Major Employers, etc.)

Asset	Address	Product/Service	Number of Employees	Hazards
Cainsville R-1 School	1308 Main	Education	25	
New Coop	1301 Main	Ag	5	
D&R Auto	908 Main	Car Repair	5	

STAPLEE Worksheet		
Name of Jurisdiction:		
Action or Project		
Action/Project Number:		
Name of Action or Project:		
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)		

STAPLEE 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 potentially successful?	
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	
P: Is it **Politically** acceptable?	
L: Is there **Legal** authority to implement?	
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)

Rebecca Mashore, City Clerk
660-893-5315

STAPLEE Worksheet		
Name of Jurisdiction:		
Action or Project		
Action/Project Number:		
Name of Action or Project:		
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)		

STAPLEE 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 potentially successful?	
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	
P: Is it **Politically** acceptable?	
L: Is there **Legal** authority to implement?	
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)

Rebecca Nilsson, City Clerk
(208-893-5315

#	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – ✓ Delete – X Modify – M Complete - C
		Complete	Ongoing	No Progress		
CC 2021.1	ACCESSIBLE CONTACT INFORMATION	X				X
CC 2021.2	CRITICAL FACILITIES BACK-UP		X			
CC 2021.3	DEBRIS REMOVAL & REGULAR BRUSH CLEARING		X			
CC 2021.4	Mitigation Education		X		Will be changed to mitigation education	M
CC 2021.5	MUTUAL AID AGREEMENTS	X			Cainsville Fire has them with other Districts	X
CC 2021.6	PANDEMIC PERSONAL PROTECTIVE EQUIPMENT (PPE)				No longer covered in plan	x
CC 2021.7	REPRESENTATIVE FOR COUNTY HAZARD MITIGATION STEERING COMMITTEE	x			Completed in 2026 plan update	C
CC 2021.8	STORM SHELTER/SAFE ROOM		X			
CC 2021.9	WEATHER ALERTS		X		Siren needs updating	
CC 2021.10	WEATHER SPOTTER TRAINING	X			Cainsville Fire Protection takes care of this	X
CC 2021.11	VULNERABLE POPULATION IDENTIFICATION					X
CC 2021.12	PARTICIPATION IN NFIP (National Floodplain Insurance Program)	X			Updating Ordinance currently to continue in NFIP	X

Community Building

storm Resistant windows/Doors

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Local Governments

COUNTY:

HARRISON_____

JURISDICTION: Eaglevill e_____

RETURN BY: _____

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: ___TERESA PARSONS

_____

PHONE: ___660-867-3110

_____

EMAIL: __EAGLEVIL@GRM.NET___ DATE: 10-24-2025

_____

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

CAPABILITY ASSESSMENT

& INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan. Although some of this information may have been captured in your previous mitigation plan, it is important to ensure this information is current in the plan update

Please indicate which of the following your jurisdiction has in place. For elements that do not pertain to your type of public entity, please indicate with "N/A". If applicable, please provide a completion date for the element. If your jurisdiction does not have a particular element, and a higher level of government has the authority pertaining to your jurisdiction, please indicate this in the comments column. If your jurisdiction has any of the ***underlined and bold*** elements, ***please provide a copy of the document*** to the contact listed on the front.

CAPABILITIES	***Status, Including Date of Document or Policy***
PLANNING CAPABILITIES	
Comprehensive Plan	No
Builder's Plan	No
Capital Improvement Plan	No
City Emergency Operations Plan	Yes
County Emergency Operations Plan	No
Local Recovery Plan	No
County Recovery Plan	No
City Mitigation Plan	No
County Mitigation Plan	Yes

Debris Management Plan	Yes
Economic Development Plan	No
Transportation Plan	Do not have
Land-use Plan	Do not have
Flood Mitigation Assistance (FMA) Plan	No
Watershed Plan	No
Firewise or other fire mitigation plan	No
School Mitigation Plan	No
Critical Facilities Plan	Do not have
POLICIES/ORDINANCE	
Zoning Ordinance	no
Building Code	no
Floodplain Ordinance	no
Subdivision Ordinance	no
Tree Trimming Ordinance	no
Nuisance Ordinance	yes
Stormwater Ordinance	no
Drainage Ordinance	No
Site Plan Review Requirements	No
Historic Preservation Ordinance	no
Landscape Ordinance	no
Seismic Construction Ordinance	no
PROGRAM	
Zoning/Land Use Restrictions	no
Codes Building Site/Design	no
Hazard Awareness Program	no
National Flood Insurance Program (NFIP)	no

NFIP Community Rating System (CRS) program If so, what is your current level rating?	no
National Weather Service (NWS) Storm Ready	no
Firewise Community Certification	no
Building Code Effectiveness Grading (BCEGs)	no
ISO Fire Rating	
Economic Development Program	no
Land Use Program	no
Public Education/Awareness	no
Property Acquisition	no
Planning/Zoning Boards	no
Stream Maintenance Program	no
Tree Trimming Program	no
Engineering Studies for Streams (Local/County/Regional)	no
Mutual Aid Agreements	Fire department does have
STUDIES/REPORTS/MAPS	
Hazard Analysis/Risk Assessment (Local)	No
Hazard Analysis/Risk Assessment (County)	No
Flood Insurance Maps	No
FEMA Flood Insurance Study (Detailed)	No
Evacuation Route Map	No
Critical Facilities Inventory	No
Vulnerable Population Inventory	no
Land Use Map	no
STAFF/DEPARTMENT ***Full Time or Part Time, if applicable?***	

Building Code Official	no
Building Inspector	no
Mapping Specialist (GIS)	no
Engineer	no
Development Planner	no
Public Works Official	no
Emergency Management Director	County
NFIP Floodplain Administrator	
Emergency Response Team	Fire Department/County
Hazardous Materials Expert	Fire Department/County
Local Emergency Planning Committee	Fire Department/
County Emergency Management Commission	Caleb Jacobs
Sanitation Department	City
Transportation Department	no
Economic Development Department	no
Housing Department	no
Historic Preservation	no

NON-GOVERNMENTAL ORGANIZATIONS (NGOS)

Is there a local chapter? Yes or No

American Red Cross	No
Salvation Army	no
Veterans Groups	no
Local Environmental Organization	no
Homeowner Associations	no
Neighborhood Associations	no
Chamber of Commerce	no
Community Organizations (Lions, Kiwanis, etc.)	no

LOCAL FUNDING AVAILABILITY *Answer Yes or No*	
Apply for Community Development Block Grants	yes
Fund projects through Capital Improvements funding	yes
Authority to levy taxes for a specific purpose	yes
Fees for water, sewer, gas, or electric services	yes
Impact fees for new development	no
Ability to incur debt through general obligation bonds	yes
Ability to incur debt through special tax bonds	yes
Ability to incur debt through private activities	no
Withhold spending in hazard prone areas	no

For plan updates, the plan maintenance process outlined in your previous plan requires all participating jurisdictions to incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate. A key element of effective implementation of mitigation is for the mitigation plan to be incorporated into existing authorities, policies, programs, and resources. Next to each applicable planning mechanism, indicate how your jurisdiction incorporated the previous mitigation plan. If no incorporation has occurred, please explain, including background information detailing any challenges preventing incorporation.

Planning Capabilities	**Method of Incorporation Since Previous Plan or Challenges Preventing Incorporation**
Comprehensive Plan	
Builder's Plan	

Capital Improvement Plan	
Local Recovery Plan	
County Recovery Plan	
Debris Management Plan	
Economic Development Plan	
Transportation Plan	
Land-use Plan	
Watershed Plan	
Firewise or other Fire Mitigation Plan such as Community Wildfire Protection Plan	Fire Department

Additional Questions

1. How is your government structure organized? (Commission, Mayor/City Council, how many members) City Council 5 members

2. List any past or ongoing public education or information programs, such as for responsible water use, fire safety, household preparedness, or environmental education.

   none

3. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities. Be sure to include pending or approved projects submitted for FEMA mitigation grants.

4. Describe any hazard-related concerns or issues regarding the vulnerability of special needs populations, such as the elderly, disabled, low-income, or migrant farm workers.

5. How many outdoor warning sirens are in your community? one

   How are they activated (indicate responsible department/personnel)? Harrison county 911

6. Does your community utilize any other warning systems such as Cable Override, Reverse 911, etc? If so, please describe.

7. Does your community have designated public tornado shelters/saferooms? If so, are they constructed in accordance with FEMA standards?
   North Harrison High School

   Please provide address locations: 12023 Fir Street, Eagleville, MO

8. List residential, commercial and industrial development in your jurisdiction since last plan update.
   None

9. Describe development trends and expected growth areas. Is any new development expected to occur in the 100-year floodplain? Is any new development expected to occur in any other known hazard areas? If possible, please provide a map indicating potential/planned growth areas.

   none

10. Are any new facilities or infrastructure planned for construction during the next five years? If so, please provide facility name and purpose along with proposed locations, if known.
None that we are aware of

11. Please list major employers in your jurisdiction with an estimated number of employees.

North Harrison High School 60 people

12. Please list Mitigation Planning Committee members who served during the development of the previously approved plan. Was the process set forth for monitoring the implementation of the previously approved mitigation plan adhered to? Did the Committee meet as was specified in the previously approved plan? Why or why not?

No committee

13. Describe your jurisdiction's participation in the NFIP. Include information about how compliance with the NFIP is enforced locally.
NO

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA's HAZUS-MH loss estimation software uses the following three categories of critical assets. ***Essential facilities*** are those that if damaged would have devastating impacts on disaster response and/or recovery. ***High potential loss facilities*** are those that would have a high loss or impact on the community. ***Transportation and lifeline facilities*** are third category of critical assets; examples are provided below.

Essential Facilities	**High Potential Loss Facilities**	**Transportation and Lifeline**
Hospitals and other medical facilities Police stations Fire station Emergency Operations Centers	Power plants Dams/levees Military installations Hazardous material sites Schools Shelters Day care centers Nursing homes Main government buildings	Highways, bridges, and tunnels Railroads and facilities Bus facilities Airports Water treatment facilities Natural gas facilities and pipelines Oil facilities and pipelines Communications facilities

Economic Assets

Economic assets at risk may include major employers or primary economic sectors, such as agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from disaster.

Asset Inventory

Please list critical facilities and other community assets, the square feet, values, and occupancy/capacity. If not applicable, enter "N/A". In the last column, use the codes from the previous page to indicate hazards to which the asset is vulnerable. Add as many rows as needed. If this information is available in GIS format, please provide to the contact listed on the first page.

Critical Facilities

Name of Asset	Address	**Natural Hazards**
Essential Facilities such as hospitals and other medical facilities, police and fire stations, Emergency Operations Centers		
Fire Station	10030	
North Harrison School	12023 Fir Street	

High Potential Loss Facilities such as power plants, dams/levees, military installations, hazardous materials sites, shelters, day care centers, nursing homes, main government buildings (Do not include schools – they will be reported by the school districts)		
Transportation and Lifelines such as highways, bridges, and tunnels; railroads and facilities, bus facilities, airports, water treatment facilities, natural gas facilities and pipelines, oil facilities and pipelines, communications facilities		

Economic Assets (Major Employers, etc.)

Asset	Address	Product/Service	Number of Employees	Hazards

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. ***Make as many copies as necessary to record all events and complete them with as much detail as possible.*** This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction	
Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Source of information	
Comments	

Assessment of Previously Proposed Actions

Jurisdiction: _____

Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksheet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

The worksheet should include information on the status of the action and progress made in implementation, if any. This includes:

- ***Completed Actions:*** provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- ***Ongoing Actions:*** indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- ***No Progress:*** if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication ***Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).***

#	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – ✓ Delete – X Modify – M
		Complete	Ongoing	No Progress		

ghrpc.org
hazard Mitigati
Harrison Co ch

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Local Governments

COUNTY: Harrison County

JURISDICTION: City of Gilman City

RETURN BY: _____

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: Lesa Petrov

PHONE: 660-876-5613

EMAIL: gchall@grm.net DATE: August 29, 2023

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

CAPABILITY ASSESSMENT

& INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan. Although some of this information may have been captured in your previous mitigation plan, it is important to ensure this information is current in the plan update

Please indicate which of the following your jurisdiction has in place. For elements that do not pertain to your type of public entity, please indicate with "N/A". If applicable, please provide a completion date for the element. If your jurisdiction does not have a particular element, and a higher level of government has the authority pertaining to your jurisdiction, please indicate this in the comments column. If your jurisdiction has any of the *underlined and bold* elements, *please provide a copy of the document* to the contact listed on the front.

CAPABILITIES	*Status, Including Date of Document or Policy*
PLANNING CAPABILITIES	
Comprehensive Plan	NO
Builder's Plan	NO
Capital Improvement Plan	NO
City Emergency Operations Plan	Yes
County Emergency Operations Plan	NO
Local Recovery Plan	Yes
County Recovery Plan	NO
City Mitigation Plan	Yes
County Mitigation Plan	Yes
Debris Management Plan	Yes
Economic Development Plan	NO
Transportation Plan	No
Land-use Plan	NO

Flood Mitigation Assistance (FMA) Plan	NO
Watershed Plan	NO
Firewise or other fire mitigation plan	No
School Mitigation Plan	NO
Critical Facilities Plan	NO
POLICIES/ORDINANCE	
Zoning Ordinance	NO
Building Code	NO
Floodplain Ordinance	No
Subdivision Ordinance	NO
Tree Trimming Ordinance	NO
Nuisance Ordinance	NO
Stormwater Ordinance	YES
Drainage Ordinance	YES
Site Plan Review Requirements	NO
Historic Preservation Ordinance	NO
Landscape Ordinance	NO
Seismic Construction Ordinance	NO
PROGRAM	
Zoning/Land Use Restrictions	NO
Codes Building Site/Design	NO
Hazard Awareness Program	NO
National Flood Insurance Program (NFIP)	NO
NFIP Community Rating System (CRS) program If so, what is your current level rating?	NO
National Weather Service (NWS) Storm Ready	NO

Firewise Community Certification	NO
Building Code Effectiveness Grading (BCEGs)	NO
ISO Fire Rating	NO
Economic Development Program	NO
Land Use Program	NO
Public Education/Awareness	NO
Property Acquisition	No
Planning/Zoning Boards	No
Stream Maintenance Program	No
Tree Trimming Program	NO
Engineering Studies for Streams (Local/County/Regional)	NO
Mutual Aid Agreements	Yes, Rural Fire District, Missouri Municipal League
STUDIES/REPORTS/MAPS	
Hazard Analysis/Risk Assessment (Local)	NO
Hazard Analysis/Risk Assessment (County)	No
Flood Insurance Maps	NO
FEMA Flood Insurance Study (Detailed)	No
Evacuation Route Map	NO
Critical Facilities Inventory	Yes
Vulnerable Population Inventory	Yes
Land Use Map	NO
STAFF/DEPARTMENT *Full Time or Part Time, if applicable?*	
Building Code Official	NO
Building Inspector	NO
Mapping Specialist (GIS)	Yes, contracted

Engineer	Yes, contracted
Development Planner	No
Public Works Official	Yes, Utility Supervisor
Emergency Management Director	Yes, Utility Supervisor
NFIP Floodplain Administrator	No
Emergency Response Team	NO
Hazardous Materials Expert	NO
Local Emergency Planning Committee	NO
County Emergency Management Commission	NO
Sanitation Department	Yes, full time
Transportation Department	Yes, 2 full time positions
Economic Development Department	No
Housing Department	NO
Historic Preservation	NO
NON-GOVERNMENTAL ORGANIZATIONS (NGOS) *Is there a local chapter? Yes or No*	
American Red Cross	NO
Salvation Army	NO
Veterans Groups	NO
Local Environmental Organization	NO
Homeowner Associations	NO
Neighborhood Associations	No
Chamber of Commerce	NO
Community Organizations (Lions, Kiwanis, etc.)	Yes, Lions Club, Learn Science + Math Club 4-H
LOCAL FUNDING AVAILABILITY *Answer Yes or No*	

Apply for Community Development Block Grants	Yes
Fund projects through Capital Improvements funding	Yes
Authority to levy taxes for a specific purpose	Yes, voter approved
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	NO
Ability to incur debt through general obligation bonds	Yes, voter approved
Ability to incur debt through special tax bonds	Yes, voter approved
Ability to incur debt through private activities	Yes, voter approved
Withhold spending in hazard prone areas	NO

For plan updates, the plan maintenance process outlined in your previous plan requires all participating jurisdictions to incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate. A key element of effective implementation of mitigation is for the mitigation plan to be incorporated into existing authorities, policies, programs, and resources. Next to each applicable planning mechanism, indicate how your jurisdiction incorporated the previous mitigation plan. If no incorporation has occurred, please explain, including background information detailing any challenges preventing incorporation. City of Gulman City adopted the Harrison County Mitigation Plan in March 2021, Resolution 649.

Planning Capabilities	Method of Incorporation Since Previous Plan or Challenges Preventing Incorporation
Comprehensive Plan	
Builder's Plan	
Capital Improvement Plan	

Local Recovery Plan	
County Recovery Plan	
Debris Management Plan	
Economic Development Plan	
Transportation Plan	
Land-use Plan	
Watershed Plan	
Firewise or other Fire Mitigation Plan such as Community Wildfire Protection Plan	

Additional Questions

1. How is your government structure organized? (Commission, Mayor/City Council, how many members) Mayor, Board of Alderman (4 members)
   Total members 5 (mayor + 4 Board members)

2. List any past or ongoing public education or information programs, such as for responsible water use, fire safety, household preparedness, or environmental education.

   Unknown

3. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities. Be sure to include pending or approved projects submitted for FEMA mitigation grants.
   There have been no approved projects submitted for FEMA mitigation grants as of December 2024.

4. Describe any hazard-related concerns or issues regarding the vulnerability of special needs populations, such as the elderly, disabled, low-income, or migrant farm workers.
warning and disaster recovery and rebuilding from tornados, earthquakes as well as drought + severe temperatures.

5. How many outdoor warning sirens are in your community? 1 in the middle of the community
How are they activated (indicate responsible department/personnel)?
It is activated manually by calling a phone number and entering a code.

6. Does your community utilize any other warning systems such as Cable Override, Reverse 911, etc? If so, please describe.
NO

7. Does your community have designated public tornado shelters/saferooms? If so, are they constructed in accordance with FEMA standards?
Do not have any.
Please provide address locations:

8. List residential, commercial and industrial development in your jurisdiction since last plan update.
None

9. Describe development trends and expected growth areas. Is any new development expected to occur in the 100-year floodplain? Is any new development expected to occur in any other known hazard areas? If possible, please provide a map indicating potential/planned growth areas.
NO

10. Are any new facilities or infrastructure planned for construction during the next five years? If so, please provide facility name and purpose along with proposed locations, if known.
NO

11. Please list major employers in your jurisdiction with an estimated number of employees.

None within the city limits.

12. Please list Mitigation Planning Committee members who served during the development of the previously approved plan. Was the process set forth for monitoring the implementation of the previously approved mitigation plan adhered to? Did the Committee meet as was specified in the previously approved plan? Why or why not?

Julie Cox

13. Describe your jurisdiction's participation in the NFIP. Include information about how compliance with the NFIP is enforced locally.

Do not participate, flooding is not a major concern in the city limits and the area around the city is mostly agricultural.

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA's HAZUS-MH loss estimation software uses the following three categories of critical assets. ***Essential facilities*** are those that if damaged would have devastating impacts on disaster response and/or recovery. ***High potential loss facilities*** are those that would have a high loss or impact on the community. ***Transportation and lifeline facilities*** are third category of critical assets; examples are provided below.

Essential Facilities	**High Potential Loss Facilities**	**Transportation and Lifeline**
Hospitals and other medical facilities Police stations Fire station Emergency Operations Centers	Power plants Dams/levees Military installations Hazardous material sites Schools Shelters Day care centers Nursing homes Main government buildings	Highways, bridges, and tunnels Railroads and facilities Bus facilities Airports Water treatment facilities Natural gas facilities and pipelines Oil facilities and pipelines Communications facilities

Economic Assets

Economic assets at risk may include major employers or primary economic sectors, such as agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from disaster.

High Potential Loss Facilities such as power plants, dams/levees, military installations, hazardous materials sites, shelters, day care centers, nursing homes, main government buildings (Do not include schools – they will be reported by the school districts)		
Lagoon dams (3)	wastewater treatment 146 Hwy	DF, EQ, SWW, D
City Hall	429 Main	ST, SWW, T
City Maintenance Buildings	442 Main	ST, SWW, T
Transportation and Lifelines such as highways, bridges, and tunnels; railroads and facilities, bus facilities, airports, water treatment facilities, natural gas facilities and pipelines, oil facilities and pipelines, communications facilities		
Highways / Streets	within City limits	SWW
Electric Lines	within city limits	ST, SWW, T

Asset Inventory

Please list critical facilities and other community assets, the square feet, values, and occupancy/capacity. If not applicable, enter "N/A". In the last column, use the codes from the previous page to indicate hazards to which the asset is vulnerable. Add as many rows as needed. If this information is available in GIS format, please provide to the contact listed on the first page.

Critical Facilities

Name of Asset	Address	Natural Hazards
Essential Facilities such as hospitals and other medical facilities, police and fire stations, Emergency Operations Centers		
Fire Station	304 Thompson	ST, T

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. *Make as many copies as necessary to record all events and complete them with as much detail as possible.* This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction	
Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Source of information	
Comments	Thank goodness none since the last Hazard Mitigatrm Plan was adopted.

Economic Assets (Major Employers, etc.)

Asset	Address	Product/Service	Number of Employees	Hazards
NA				

#	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – ✓ Delete – X Modify – M
		Complete	Ongoing	No Progress		

Assessment of Previously Proposed Actions

Jurisdiction: _____

Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksheet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

The worksheet should include information on the status of the action and progress made in implementation, if any. This includes:

- *Completed Actions:* provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- *Ongoing Actions:* indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- *No Progress:* if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).*

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Local Governments

COUNTY: Harrison

JURISDICTION: City of Ridgeway

RETURN BY: Toni Storms City Clerk.

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: Toni Storms City Clerk & Shelly Lovitt Council Men

PHONE: 660-872-6414

EMAIL: toni.storms@cityofridgeway.com DATE: 8/7/25.

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

CAPABILITY ASSESSMENT

& INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan. Although some of this information may have been captured in your previous mitigation plan, it is important to ensure this information is current in the plan update

Please indicate which of the following your jurisdiction has in place. For elements that do not pertain to your type of public entity, please indicate with "N/A". If applicable, please provide a completion date for the element. If your jurisdiction does not have a particular element, and a higher level of government has the authority pertaining to your jurisdiction, please indicate this in the comments column. If your jurisdiction has any of the *underlined and bold* elements, *please provide a copy of the document* to the contact listed on the front.

CAPABILITIES	*Status, Including Date of Document or Policy*
PLANNING CAPABILITIES	
Comprehensive Plan	
Builder's Plan	NO
Capital Improvement Plan	NO
City Emergency Operations Plan	NO
County Emergency Operations Plan	N/A
Local Recovery Plan	NO
County Recovery Plan	N/A
City Mitigation Plan	NO
County Mitigation Plan	N/A
Debris Management Plan	NO
Economic Development Plan	
Transportation Plan	NO
Land-use Plan	NO

Flood Mitigation Assistance (FMA) Plan	NO
Watershed Plan	
Firewise or other fire mitigation plan	NO
School Mitigation Plan	N/A
Critical Facilities Plan	NO
POLICIES/ORDINANCE	
Zoning Ordinance	NO
Building Code	Paradise Building Code Building Code
Floodplain Ordinance	Yes-
Subdivision Ordinance	NO
Tree Trimming Ordinance	NO
Nuisance Ordinance	Yes -
Stormwater Ordinance	NO
Drainage Ordinance	NO
Site Plan Review Requirements	NO
Historic Preservation Ordinance	NO
Landscape Ordinance	NO
Seismic Construction Ordinance	NO
PROGRAM	
Zoning/Land Use Restrictions	NO
Codes Building Site/Design	NO
Hazard Awareness Program	NO
National Flood Insurance Program (NFIP)	
NFIP Community Rating System (CRS) program If so, what is your current level rating?	
National Weather Service (NWS) Storm Ready	NO

Firewise Community Certification	NO
Building Code Effectiveness Grading (BCEGs)	N/A
ISO Fire Rating	N/A
Economic Development Program	NO
Land Use Program	NO
Public Education/Awareness	N/A
Property Acquisition	NO
Planning/Zoning Boards	NO
Stream Maintenance Program	N/A
Tree Trimming Program	NO
Engineering Studies for Streams (Local/County/Regional)	
Mutual Aid Agreements	N/A
STUDIES/REPORTS/MAPS	
Hazard Analysis/Risk Assessment (Local)	NO
Hazard Analysis/Risk Assessment (County)	N/A
Flood Insurance Maps	Yes
FEMA Flood Insurance Study (Detailed)	Yes
Evacuation Route Map	NO
Critical Facilities Inventory	NO
Vulnerable Population Inventory	NO
Land Use Map	NO
STAFF/DEPARTMENT *Full Time or Part Time, if applicable?*	
Building Code Official	Yes- elected
Building Inspector	Yes- elected
Mapping Specialist (GIS)	NO/N/A

Engineer	Yes
Development Planner	NO
Public Works Official	NO
Emergency Management Director	NO
NFIP Floodplain Administrator	Yes
Emergency Response Team	N/A
Hazardous Materials Expert	NO
Local Emergency Planning Committee	N/A
County Emergency Management Commission	N/A
Sanitation Department	Yes-Full time wastewater
Transportation Department	N/A
Economic Development Department	NO
Housing Department	NO
Historic Preservation	NO
NON-GOVERNMENTAL ORGANIZATIONS (NGOS) *Is there a local chapter? Yes or No*	
American Red Cross	NO
Salvation Army	NO
Veterans Groups	Yes
Local Environmental Organization	NO
Homeowner Associations	NO
Neighborhood Associations	NO
Chamber of Commerce	NO
Community Organizations (Lions, Kiwanis, etc.)	Yes- Betterment Community
LOCAL FUNDING AVAILABILITY *Answer Yes or No*	

Apply for Community Development Block Grants	can apply but haven't yet
Fund projects through Capital Improvements funding	Are able to fund minor projects
Authority to levy taxes for a specific purpose	Yes but due to average household income citi
Fees for water, sewer, gas, or electric services	can't afford more fees. Yes- water & Sewer
Impact fees for new development	NO
Ability to incur debt through general obligation bonds	NO – Can't afford
Ability to incur debt through special tax bonds	NO - Can't afford
Ability to incur debt through private activities	NO- Can't afford
Withhold spending in hazard prone areas	N/A

For plan updates, the plan maintenance process outlined in your previous plan requires all participating jurisdictions to incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate. A key element of effective implementation of mitigation is for the mitigation plan to be incorporated into existing authorities, policies, programs, and resources. Next to each applicable planning mechanism, indicate how your jurisdiction incorporated the previous mitigation plan. If no incorporation has occurred, please explain, including background information detailing any challenges preventing incorporation.

Planning Capabilities	**Method of Incorporation Since Previous Plan or Challenges Preventing Incorporation**
Comprehensive Plan	haven't been a participant in the previous mitigation plan.
Builder's Plan	" "
Capital Improvement Plan	" "

Local Recovery Plan	"	"
County Recovery Plan	"	"
Debris Management Plan	"	"
Economic Development Plan	"	"
Transportation Plan	"	"
Land-use Plan	"	"
Watershed Plan	"	"
Firewise or other Fire Mitigation Plan such as Community Wildfire Protection Plan	"	"

Additional Questions

1. How is your government structure organized? (Commission, Mayor/City Council, how many members)

   Mayor - Elected at large, 2 yr term
   4 City Council members - Elected at large - 2 yr term staggered.

2. List any past or ongoing public education or information programs, such as for responsible water use, fire safety, household preparedness, or environmental education.

   Annual Public Resource Event - 2023, 2024, & planning for 2

3. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities. Be sure to include pending or approved projects submitted for FEMA mitigation grants.

   None

4. Describe any hazard-related concerns or issues regarding the vulnerability of special needs populations, such as the elderly, disabled, low-income, or migrant farm workers.

No heating & cooling center, lack of transportation for daily living needs, lack of storm shelter, no local programs for low income assistance, no physician in town, lack of low income housing, lack of day care.

5. How many outdoor warning sirens are in your community?

1

How are they activated (indicate responsible department/personnel)?

Fire Department manually operates.

6. Does your community utilize any other warning systems such as Cable Override, Reverse 911, etc? If so, please describe.

No

7. Does your community have designated public tornado shelters/saferooms? If so, are they constructed in accordance with FEMA standards?

NO

Please provide address locations:

8. List residential, commercial and industrial development in your jurisdiction since last plan update.

N/A

9. Describe development trends and expected growth areas. Is any new development expected to occur in the 100-year floodplain? Is any new development expected to occur in any other known hazard areas? If possible, please provide a map indicating potential/planned growth areas.

NO

10. Are any new facilities or infrastructure planned for construction during the next five years? If so, please provide facility name and purpose along with proposed locations, if known.

Unknown

11. Please list major employers in your jurisdiction with an estimated number of employees.

Dale Farms → 20
School → 20
Meek Farms → 10
Thomas Farms → 15
Harding Game Farm → 10

12. Please list Mitigation Planning Committee members who served during the development of the previously approved plan. Was the process set forth for monitoring the implementation of the previously approved mitigation plan adhered to? Did the Committee meet as was specified in the previously approved plan? Why or why not?

N/A

13. Describe your jurisdiction's participation in the NFIP. Include information about how compliance with the NFIP is enforced locally.

Have all the pertinent info & maps.
Have all the ordinances in place w/ an administrato
Follow all guidelines provided.

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA's HAZUS-MH loss estimation software uses the following three categories of critical assets. *Essential facilities* are those that if damaged would have devastating impacts on disaster response and/or recovery. *High potential loss facilities* are those that would have a high loss or impact on the community. *Transportation and lifeline facilities* are third category of critical assets; examples are provided below.

Essential Facilities	**High Potential Loss Facilities**	**Transportation and Lifeline**
Hospitals and other medical facilities Police stations Fire station Emergency Operations Centers	Power plants Dams/levees Military installations Hazardous material sites Schools Shelters Day care centers Nursing homes Main government buildings	Highways, bridges, and tunnels Railroads and facilities Bus facilities Airports Water treatment facilities Natural gas facilities and pipelines Oil facilities and pipelines Communications facilities

Economic Assets

Economic assets at risk may include major employers or primary economic sectors, such as agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from disaster.

Asset Inventory

Please list critical facilities and other community assets, the square feet, values, and occupancy/capacity. If not applicable, enter "N/A". In the last column, use the codes from the previous page to indicate hazards to which the asset is vulnerable. Add as many rows as needed. If this information is available in GIS format, please provide to the contact listed on the first page.

Critical Facilities

Name of Asset	Address	Natural Hazards
Essential Facilities such as hospitals and other medical facilities, police and fire stations, Emergency Operations Centers		
Fire Station	605 Main St Ridgeway MO 64481	EQ, ET, ST, SWW, T
2 Sewer lift Stations	At the lagoon on Hwy A	EQ, ET, ST, SWW, T, RF, D
Booster Station Water	On Hwy T	EQ, ET, ST, SWW, T, RF, D
School	305 Main St Ridgeway MO 64481 250 Students	EQ, ET, ST, SWW, T
City Hall/Lions Hall/Barn	600 Main St Ridgeway MO 64481 75 Community Members	EQ, ET, ST, SWW, T, RF
Highways, town rds, bridges, tubes	All in city limits & surrounding	EQ, ET, ST, SWW, T, RF, D, W
Natural Gas ~~facilities~~ pipelines	Underground & Metered.	EQ, RF, D, ET, ST, SWW
Oil facility/pipelines MFA	above ground tanks In ground & fuel pumps & water tower to booster	EQ, D, ET, ST, SWW, T
Booster Station Comm/Water.	Station, ONT	EQ, ET, ST, SWW, T,
Internet/Cell towers	Underground fiber & towers ONT	EQ, D, ET, ST, SWW T

High Potential Loss Facilities such as power plants, dams/levees, military installations, hazardous materials sites, shelters, day care centers, nursing homes, main government buildings (Do not include schools – they will be reported by the school districts)		
Transportation and Lifelines such as highways, bridges, and tunnels; railroads and facilities, bus facilities, airports, water treatment facilities, natural gas facilities and pipelines, oil facilities and pipelines, communications facilities		

Economic Assets (Major Employers, etc.)

Asset	Address	Product/Service	Number of Employees	Hazards
Dale Farms	609 Vine Street	Farming Crops	20	RF, EQ, W, D, ET, ST, SWW, T
School	305 Main Street	Education	20	RF, EQ, W, D, ET, ST, SWW, T
Melk Farms	29123 E 220th St	Farming	10	RF, EQ, W, D, ET, ST, SWW, T
Thomas Farms	23386 W 220th Ave	Butcher	15	RF, EQ, D, ET, W, ST, SWW, T
Harding Game Farm	24037 E Cord T	Game Farming	10	RF, EQ, D, ET, W, ST, SWW, T
Ridgeway Solid Waste	304 Pine St	Trash Disposal	2	RF, EQ, W, D, ST, SWW, T
City Hall	606 Main St	Municipality	2	RF, EQ, W, D ST, SWW, T

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. *Make as many copies as necessary to record all events and complete them with as much detail as possible.* This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction	City of Ridgeway
Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Source of information	
Comments	Currently don't have any of the above info we will have to do research to obtain.

Assessment of Previously Proposed Actions

Jurisdiction: City of Ridgeway

Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksheet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

The worksheet should include information on the status of the action and progress made in implementation, if any. This includes:

- *Completed Actions:* provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- *Ongoing Actions:* indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- *No Progress:* if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).*

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Local Governments

COUNTY: HARRISON COUNTY

JURISDICTION: CITY OF NEW HAMPTON

RETURN BY: DECEMBER 13, 2025

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: CASSANDRA BAKER, CITY CLERK

PHONE: 660-439-4315

EMAIL: CITYOFNH@GRM.NET DATE: 12/12/25

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

CAPABILITY ASSESSMENT

& INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan. Although some of this information may have been captured in your previous mitigation plan, it is important to ensure this information is current in the plan update

Please indicate which of the following your jurisdiction has in place. For elements that do not pertain to your type of public entity, please indicate with "N/A". If applicable, please provide a completion date for the element. If your jurisdiction does not have a particular element, and a higher level of government has the authority pertaining to your jurisdiction, please indicate this in the comments column. If your jurisdiction has any of the ***underlined and bold*** elements, ***please provide a copy of the document*** to the contact listed on the front.

CAPABILITIES	***Status, Including Date of Document or Policy***
PLANNING CAPABILITIES	
Comprehensive Plan	
Builder's Plan	NO
Capital Improvement Plan	NO
City Emergency Operations Plan	FOR WATER AND SEWER SYSTEM ONLY
County Emergency Operations Plan	UNKNOWN
Local Recovery Plan	NO
County Recovery Plan	UNKNOWN
City Mitigation Plan	NO
County Mitigation Plan	UNKNOWN
Debris Management Plan	NO
Economic Development Plan	
Transportation Plan	NO
Land-use Plan	NO

Flood Mitigation Assistance (FMA) Plan	NO
Watershed Plan	
Firewise or other fire mitigation plan	NO
School Mitigation Plan	NO SCHOOL HERE
Critical Facilities Plan	NO CRITICAL FACLITIES HERE
POLICIES/ORDINANCE	
Zoning Ordinance	NO
Building Code	NO
Floodplain Ordinance	UPDATED 12/2025
Subdivision Ordinance	N/A
Tree Trimming Ordinance	NO
Nuisance Ordinance	YES
Stormwater Ordinance	NO
Drainage Ordinance	NO
Site Plan Review Requirements	NO
Historic Preservation Ordinance	NO
Landscape Ordinance	NO
Seismic Construction Ordinance	NO
PROGRAM	
Zoning/Land Use Restrictions	NO
Codes Building Site/Design	NO
Hazard Awareness Program	NO
National Flood Insurance Program (NFIP)	YES
NFIP Community Rating System (CRS) program If so, what is your current level rating?	UNKNOWN
National Weather Service (NWS) Storm Ready	NO

Firewise Community Certification	NO
Building Code Effectiveness Grading (BCEGs)	NO
ISO Fire Rating	HANDLED BY THE FIRE DISTRICT-NOT UNDER CITY JURISDICTION
Economic Development Program	NO
Land Use Program	NO
Public Education/Awareness	NO
Property Acquisition	NO
Planning/Zoning Boards	NO
Stream Maintenance Program	NO
Tree Trimming Program	NO
Engineering Studies for Streams (Local/County/Regional)	
Mutual Aid Agreements	NO
STUDIES/REPORTS/MAPS	
Hazard Analysis/Risk Assessment (Local)	UNKNOWN
Hazard Analysis/Risk Assessment (County)	UNKNOWN
Flood Insurance Maps	YES
FEMA Flood Insurance Study (Detailed)	UNKNOWN
Evacuation Route Map	NO
Critical Facilities Inventory	NO CRITICAL FACILITIES
Vulnerable Population Inventory	NO-HANDLED BY COUNTY HEALTH DEPT
Land Use Map	NO
STAFF/DEPARTMENT *Full Time or Part Time, if applicable?*	
Building Code Official	NO
Building Inspector	NO
Mapping Specialist (GIS)	NO

Engineer	NO-HIRED AS NEEDED
Development Planner	NO
Public Works Official	NO
Emergency Management Director	NO
NFIP Floodplain Administrator	CITY CLERK
Emergency Response Team	NO
Hazardous Materials Expert	NO
Local Emergency Planning Committee	NO
County Emergency Management Commission	UNKNOWN
Sanitation Department	NO
Transportation Department	NO
Economic Development Department	NO
Housing Department	NO
Historic Preservation	NO
NON-GOVERNMENTAL ORGANIZATIONS (NGOS) *Is there a local chapter? Yes or No*	
American Red Cross	NO
Salvation Army	NO
Veterans Groups	NO
Local Environmental Organization	NO
Homeowner Associations	NO
Neighborhood Associations	NO
Chamber of Commerce	NO
Community Organizations (Lions, Kiwanis, etc.)	NO
LOCAL FUNDING AVAILABILITY *Answer Yes or No*	

Apply for Community Development Block Grants	NEVER DONE IT
Fund projects through Capital Improvements funding	UNKNOWN
Authority to levy taxes for a specific purpose	YES?
Fees for water, sewer, gas, or electric services	YES
Impact fees for new development	UNKNOWN
Ability to incur debt through general obligation bonds	YES-WATER OR SEWER ONLY
Ability to incur debt through special tax bonds	UNKNOWN
Ability to incur debt through private activities	UNKNOWN
Withhold spending in hazard prone areas	UNKNOWN

For plan updates, the plan maintenance process outlined in your previous plan requires all participating jurisdictions to incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate. A key element of effective implementation of mitigation is for the mitigation plan to be incorporated into existing authorities, policies, programs, and resources. Next to each applicable planning mechanism, indicate how your jurisdiction incorporated the previous mitigation plan. If no incorporation has occurred, please explain, including background information detailing any challenges preventing incorporation.

Planning Capabilities	**Method of Incorporation Since Previous Plan or Challenges Preventing Incorporation**
Comprehensive Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.
Builder's Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.
Capital Improvement Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.

Local Recovery Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.
County Recovery Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.
Debris Management Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.
Economic Development Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.
Transportation Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.
Land-use Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.
Watershed Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.
Firewise or other Fire Mitigation Plan such as Community Wildfire Protection Plan	I AM A NEW, PART-TIME CLERK AND WILL REQUIRE ADDITIONAL CLARIFICATION AND ASSISTANCE TO ANSWER THIS.

Additional Questions

1. How is your government structure organized? (Commission, Mayor/City Council, how many members) MAYOR/CITY COUNCIL – 4 ALDREMEN, 1 MAYOR

2. List any past or ongoing public education or information programs, such as for responsible water use, fire safety, household preparedness, or environmental education. NONE

3. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities. Be sure to include pending or approved projects submitted for FEMA mitigation grants. NONE

4. Describe any hazard-related concerns or issues regarding the vulnerability of special needs populations, such as the elderly, disabled, low-income, or migrant farm workers. NONE

5. How many outdoor warning sirens are in your community? ONE

   How are they activated (indicate responsible department/personnel)? UNKNOWN. HANDLED BY FIRE DISTRICT

6. Does your community utilize any other warning systems such as Cable Override, Reverse 911, etc? If so, please describe. NONE

7. Does your community have designated public tornado shelters/saferooms? If so, are they constructed in accordance with FEMA standards? NO

   Please provide address locations:

8. List residential, commercial and industrial development in your jurisdiction since last plan update. NONE

9. Describe development trends and expected growth areas. Is any new development expected to occur in the 100-year floodplain? Is any new development expected to occur in any other known hazard areas? If possible, please provide a map indicating potential/planned growth areas. NONE

10. Are any new facilities or infrastructure planned for construction during the next five years? If so, please provide facility name and purpose along with proposed locations, if known. WE

WILL BEGIN AN UPGRADE AT OUR LAGOON IN 2026 TO MEET NEW PERMIT REQUIREMENTS.

11. Please list major employers in your jurisdiction with an estimated number of employees. NONE

12. Please list Mitigation Planning Committee members who served during the development of the previously approved plan. Was the process set forth for monitoring the implementation of the previously approved mitigation plan adhered to? Did the Committee meet as was specified in the previously approved plan? Why or why not? UNKNOWN

13. Describe your jurisdiction's participation in the NFIP. Include information about how compliance with the NFIP is enforced locally. WE ADDRESS ISSUES AS PRESENTED BY FEMA/SEMA. OTHER THAN THAT, UNKNOWN. WE HAVE LITTLE, IF ANY, UNDERSTANDING OF THE NFIP PROGRAM.

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA's HAZUS-MH loss estimation software uses the following three categories of critical assets. ***Essential facilities*** are those that if damaged would have devastating impacts on disaster response and/or recovery. ***High potential loss facilities*** are those that would have a high loss or impact on the community. ***Transportation and lifeline facilities*** are third category of critical assets; examples are provided below.

Essential Facilities	**High Potential Loss Facilities**	**Transportation and Lifeline**
Hospitals and other medical facilities Police stations Fire station Emergency Operations Centers	Power plants Dams/levees Military installations Hazardous material sites Schools Shelters Day care centers Nursing homes Main government buildings	Highways, bridges, and tunnels Railroads and facilities Bus facilities Airports Water treatment facilities Natural gas facilities and pipelines Oil facilities and pipelines Communications facilities

Economic Assets

Economic assets at risk may include major employers or primary economic sectors, such as agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from disaster.

Asset Inventory

Please list critical facilities and other community assets, the square feet, values, and occupancy/capacity. If not applicable, enter "N/A". In the last column, use the codes from the previous page to indicate hazards to which the asset is vulnerable. Add as many rows as needed. If this information is available in GIS format, please provide to the contact listed on the first page.

Critical Facilities

Name of Asset	Address	Natural Hazards
Essential Facilities such as hospitals and other medical facilities, police and fire stations, Emergency Operations Centers		
FIRE STATION	102 S RACE – NOT UNDER CITY JURISDICTION	ST, SWW, T

High Potential Loss Facilities such as power plants, dams/levees, military installations, hazardous materials sites, shelters, day care centers, nursing homes, main government buildings (Do not include schools – they will be reported by the school districts)		
NONE		
Transportation and Lifelines such as highways, bridges, and tunnels; railroads and facilities, bus facilities, airports, water treatment facilities, natural gas facilities and pipelines, oil facilities and pipelines, communications facilities		
NONE		

Economic Assets (Major Employers, etc.)

Asset	Address	Product/Service	Number of Employees	Hazards
NONE				

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. *Make as many copies as necessary to record all events and complete them with as much detail as possible.* This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction	NONE
Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Source of information	
Comments	

Assessment of Previously Proposed Actions

Jurisdiction: _____City of New Hampton_____

Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksheet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

The worksheet should include information on the status of the action and progress made in implementation, if any. This includes:

- ***Completed Actions:*** provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- ***Ongoing Actions:*** indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- ***No Progress:*** if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication ***Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).***

#	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – ✓ Delete – X Modify – M
		Complete	Ongoing	No Progress		
CNH 2021.1	Mitigation Education				Will be changed to mitigation education	M
CNH 2021.2	WEATHER ALERTS				NO CHANGE	
CNH 2021.3	ACCESSIBLE CONTACT INFORMATION				NO CHANGE	
CNH 2021.4	CRITICAL FACILITIES BACK-UP				NO CHANGE	
CNH 2021.5	DEBRIS REMOVAL & REGULAR BRUSH CLEARING				NO CHANGE	
CNH 2021.6	MUTUAL AID AGREEMENTS				NO CHANGE	
CNH 2021.7	WEATHER SPOTTER TRAINING				NO CHANGE	
CNH 2021.8	STORM SHELTER/SAFE ROOM				NO CHANGE	
CNH 2021.9	REPRESENTATIVE FOR COUNTY HAZARD MITIGATION STEERING COMMITTEE	x			Completed in 2026 plan update	C
CNH 2021.10	VULNERABLE POPULATION IDENTIFICATION				NO CHANGE	

CNH 2021.11	PANDEMIC PERSONAL PROTECTIVE EQUIPMENT (PPE)				No longer covered in plan	x

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Schools Districts and Educational Institutions

COUNTY: HARRISON Harrison

JURISDICTION: ? North Harrison R-III

RETURN BY:

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: _MIKE TIPTON Mike Tipton

PHONE: (660) 635-1921

EMAIL: TIPTONM@NHR3.NET___ DATE: _AUGUST 15, 2025__

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

Capability Assessment & Incorporation of Existing Plans, Studies, Reports, and Technical Information

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan.

Please indicate which of the following your school district / institution has in place. For elements that do not pertain to you, please indicate with "N/A". If applicable, please provide a completion date for the element. If your school district / institution has any of the ***underlined and bold*** elements, ***please provide a copy of the document to the contact indicated on the front*** to the contact listed on page 1.

PLANNING ELEMENTS	YES/NO	DATE OF LATEST VERSION	COMMENTS
Master Plan	X	OCTOBER 2023	
Capital Improvement Plan	X	APRIL 2025	
School Emergency Plan • Shelter in Place Protocols • Evacuation Protocols	X	OCTOBER 2023	
Weapons Policy	X	JUNE 2025	
PERSONNEL RESOURCES	**YES/NO**	**DEPARTMENT/ POSITION**	**COMMENTS**
Full-Time Building Official	NO		
Emergency Manager	NO		
Grant Writer	NO		
Public Information Officer	NO		

FINANCIAL RESOURCES	YES/NO	COMMENTS
Capital Improvements Project Funding	NO	
Local Funds	YES	
General Obligation Bonds	YES	
Special Tax Bonds	NO	
Private Activities/Donations	YES	
State and Federal Funds	YES	

Additional Capabilities Questions

1. Are your buildings equipped with a public address (PA) system or other emergency alert system? Please describe.

Yes, we have a PA system in all of our buildings that can offer alerts by single building or throughout all buildings.

2. Does your school buildings' have NOAA Weather Radios?

No.

3. List any past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect facilities or provide education regarding hazards that could occur.

We have a storm shelter that was built by the Early Childhood Center to increase safety during natural disasters.

4. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities.

None at this time.

5. Do any of your buildings have designated tornado shelters or "saferooms"? If so, are they constructed in accordance with FEMA standards?

Yes. We do in the basement locker room at our JH/HS and in the storm shelter area at the elementary.

6. Did your school district / institution make any additions to buildings or construction new buildings since the last plan update? Please list the buildings and the improvement.

No

7. Does your school district / institution plan to remodel or construct any buildings in the next 5 years? If so, please list the building or proposed building and planned improvements. Are any planned construction activities in known hazard areas?

We do not have any plans at this time.

8. What percentage is your projected enrollment expected to increase or decrease in the next five years?

We are projected to remain steady.

9. Do you have your own campus police? Please explain your police department or who you rely on for security needs.

No. We rely on the county sheriff's department.

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Please list buildings owned by your school district / institution including the square feet, values, and occupancy/capacity. If not applicable or not available, enter "N/A". Add as many rows as needed. ***If you have this data in GIS formats, or other formats, please provide in lieu of this.***

Name of Asset	Address	**Natural Hazards**
Early Childhood Center	12023 Fir St. Eagleville, MO 64442	Metal building, prone to destruction from tornadoes.
Elementary Building	12023 Fir St. Eagleville, MO 644422	No known hazards.
JH/HS Building	12023 Fir St. Eagleville, MO 64442	No known hazards.
Ag Building	12023 Fir St. Eagleville, MO 64442	Metal building, prone to destruction from tornadoes.
Bus Barn	12023 Fir St. Eagleville, MO 64442	Metal building, prone to destruction from tornadoes.

Storage Shed	12023 Fir St. Eagleville, MO 64442	Metal building, prone to destruction from tornadoes.

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. ***Make as many copies as necessary to record all events and complete them with as much detail as possible.*** This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction	
Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Source of information	
Comments	

Assessment of Previously Proposed Actions

Jurisdiction:

Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksheet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

The worksheet should include information on the status of the action and progress made in implementation, if any. This includes:

- ***Completed Actions:*** provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- ***Ongoing Actions:*** indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- ***No Progress:*** if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication ***Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).***

#	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – ✓ Delete – X Modify – M
		Complete	Ongoing	No Progress		

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Schools Districts and Educational Institutions

COUNTY: Harrison

JURISDICTION: Ridgeway R-V

RETURN BY: Dr. Michael Fitzpatrick

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: Dr. Michael Fitzpatrick

PHONE: 660-872-6813

EMAIL: mfitzpatrick@rhsk12.org DATE: AUGUST 1, 2025

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

Capability Assessment & Incorporation of Existing Plans, Studies, Reports, and Technical Information

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan.

Please indicate which of the following your school district / institution has in place. For elements that do not pertain to you, please indicate with "N/A". If applicable, please provide a completion date for the element. If your school district / institution has any of the ***underlined and bold*** elements, ***please provide a copy of the document to the contact indicated on the front*** to the contact listed on page 1.

PLANNING ELEMENTS	YES/NO	DATE OF LATEST VERSION	COMMENTS
Master Plan	YES	8-14-24	THE MASTER PLAN WILL BE REVIEWED
Capital Improvement Plan			
School Emergency Plan • Shelter in Place Protocols • Evacuation Protocols	YES	8-14-24	THE MASTER PLAN WILL BE REVIEWED
Weapons Policy	YES	8-14-24	THE MASTER PLAN WILL BE REVIEWED
PERSONNEL RESOURCES	**YES/NO**	**DEPARTMENT/ POSITION**	**COMMENTS**
Full-Time Building Official	YES	SUPERINTENDENT	12 MONTH CONTRACT

Emergency Manager	YES		
Grant Writer	YES	SUPERINTENDENT	12 MONTH CONTRACT
Public Information Officer	YES	SUPERINTENDENT	12 MONTH CONTRACT
FINANCIAL RESOURCES	YES/NO	COMMENTS	
Capital Improvements Project Funding	YES	LIMITED FUNDS	
Local Funds	YES		
General Obligation Bonds	YES		
Special Tax Bonds	NO	OPTION TO HAVE SPECIAL TAX BONDS	
Private Activities/Donations	YES		
State and Federal Funds	YES		

Additional Capabilities Questions

1. Are your buildings equipped with a public address (PA) system or other emergency alert system? Please describe.

   Yes, Ridgeway R-V School District uses Bell Commander & the District phone system.

2. Does your school buildings' have NOAA Weather Radios?

   No, Ridgeway R-V School District does not have a NOAA Weather Radios.

3. List any past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect facilities or provide education regarding hazards that could occur.

   Aside from the typical trainings (i.e., active killer, fire & tornado drills, CPR, etc.), Ridgeway R-V School District has not actively participated in any ongoing trainings.

4. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities.

   Aside from the typical trainings (i.e., active killer, fire & tornado drills, CPR, etc.), Ridgeway R-V School District has not actively participated in any ongoing trainings.

5. Do any of your buildings have designated tornado shelters or "saferooms"? If so, are they constructed in accordance with FEMA standards?

   No, Ridgeway R-V School District does not have a complex that meets FEMA standards.

6. Did your school district / institution make any additions to buildings or construction new buildings since the last plan update? Please list the buildings and the improvement.

   No, Ridgeway R-V School District does not currently have any construction projects.

7. Does your school district / institution plan to remodel or construct any buildings in the next 5 years? If so, please list the building or proposed building and planned improvements. Are any planned construction activities in known hazard areas?

   As of now, Ridgeway R-V School District does not have any plans to due any major construction projects within the next 5 years. However, this is subject to change by spring of 2026.

8. What percentage is your projected enrollment expected to increase or decrease in the next five years?

   Optimistically Ridgeway R-V School District will grow beyond capacity within the next five years.

9. Do you have your own campus police? Please explain your police department or who you rely on for security needs.

   No, Ridgeway R-V School District does not currently have a SRO.

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Please list buildings owned by your school district / institution including the square feet, values, and occupancy/capacity. If not applicable or not available, enter "N/A". Add as many rows as needed. *If you have this data in GIS formats, or other formats, please provide in lieu of this.*

Name of Asset	Address	Natural Hazards
Please See Attached		

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. *Make as many copies as necessary to record all events and complete them with as much detail as possible.* This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction	N/A
Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Source of information	
Comments	

Assessment of Previously Proposed Actions

Jurisdiction: _____

Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksheet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

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- *Completed Actions:* provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- *Ongoing Actions:* indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- *No Progress:* if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).*

#	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – ✓ Delete – X Modify – M
		Complete	Ongoing	No Progress		
	Ridgeway R-V School District's administrative staff is relatively new & cannot adequately respond to this section.					

Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Schools Districts and Educational Institutions

COUNTY:____Harrison _____

JURISDICTION: _South Harrison Co. R-II School District _____

RETURN BY:_____Dr. Michael Estes_____

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: _____DR. MICHAEL ESTES_____

PHONE: _____660-425-8044_____

EMAIL: _MESTES@SHR2.K12.MO.US_____

DATE: ___OCTOBER 23, 2025_____

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

Capability Assessment & Incorporation of Existing Plans, Studies, Reports, and Technical Information

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan.

Please indicate which of the following your school district / institution has in place. For elements that do not pertain to you, please indicate with "N/A". If applicable, please provide a completion date for the element. If your school district / institution has any of the ***underlined and bold*** elements, ***please provide a copy of the document to the contact indicated on the front*** to the contact listed on page 1.

PLANNING ELEMENTS	YES/NO	DATE OF LATEST VERSION	COMMENTS
Master Plan	YES	08/11/2025	
Capital Improvement Plan	YES	10/14/2025	
School Emergency Plan • Shelter in Place Protocols • Evacuation Protocols	YES	08/11/2025	
Weapons Policy	YES	02/08/2001	
PERSONNEL RESOURCES	**YES/NO**	**DEPARTMENT/ POSITION**	**COMMENTS**
Full-Time Building Official	YES	SUPERINTENDENT	
Emergency Manager	YES	SUPERINTENDENT	
Grant Writer	NO		

Public Information Officer	NO		
FINANCIAL RESOURCES	YES/NO	COMMENTS	
Capital Improvements Project Funding	YES		
Local Funds	YES		
General Obligation Bonds	NO		
Special Tax Bonds	NO		
Private Activities/Donations	NO		
State and Federal Funds	YES		

Additional Capabilities Questions

1. Are your buildings equipped with a public address (PA) system or other emergency alert system? Please describe.

   Yes, we have an intercom system at each of our schools.

2. Does your school buildings' have NOAA Weather Radios?

   Yes

3. List any past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect facilities or provide education regarding hazards that could occur.

   Through our liability and property insurance, we just had a facilities review. Part of the review is to identify potential hazards and areas that need to be addressed. We currently have contracted out for tree/stump removal of trees that are located to close to buildings and branches overhanging onto buildings.

4. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities.

5. Do any of your buildings have designated tornado shelters or "saferooms"? If so, are they constructed in accordance with FEMA standards?

   No

6. Did your school district / institution make any additions to buildings or construction new buildings since the last plan update? Please list the buildings and the improvement.

   No

7. Does your school district / institution plan to remodel or construct any buildings in the next 5 years? If so, please list the building or proposed building and planned improvements. Are any planned construction activities in known hazard areas?

   No

8. What percentage is your projected enrollment expected to increase or decrease in the next five years?

   Decrease – 7-10%

9. Do you have your own campus police? Please explain your police department or who you rely on for security needs.

   No – We rely on Bethany Police Department and the Harrison County Sherriff's Office.

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Please list buildings owned by your school district / institution including the square feet, values, and occupancy/capacity. If not applicable or not available, enter "N/A". Add as many rows as needed. *If you have this data in GIS formats, or other formats, please provide in lieu of this.*

Name of Asset	Address	**Natural Hazards**
South Harrison High School – 70240 sq ft	3400 Bulldog Ave. Bethany MO 64424	EQ, ET, ST, SWW, T
South Harrison Middle School - 28858 sq ft	3400 Bulldog Ave. Bethany MO 64424	EQ, ET, ST, SWW, T
South Harrison Elem School – 33212 sq ft	2213 Beckman Bethany MO 64424	EQ, ET, ST, SWW, T
North Central Career Center – 36104 sq ft	1401 Daily Rd. Bethany MO 64424	EQ, ET, ST, SWW, T

Bus Barn - 8160 sq ft	3400 Bulldog Ave. Bethany MO 64424	EQ, ET, ST, SWW, T
Fitzgerald Field House – 7500 sq ft	3400 Bulldog Ave. Bethany MO 64424	EQ, ET, ST, SWW, T
South Harrison ECSE - 4158 sq ft	905 S. 24th Street Bethany, MO 64424	EQ, ET, ST, SWW, T
Maintenance Building – 3280 sq ft	3400 Bulldog Ave Bethany, MO 64424	EQ, ET, ST, SWW, T
South Harrison Early Childhood Center – 2735 sq ft	905 24th Street Bethany, MO 64424	EQ, ET, ST, SWW, T
Field House – 2440 sq ft	3400 Bulldog Ave Bethany, MO 64424	EQ, ET, ST, SWW, T

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. *Make as many copies as necessary to record all events and complete them with as much detail as possible.* This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction	South Harrison Co. R-II School District
Type of event	SWW
Nature and magnitude of event	Snow and Ice
Location	
Date of event	1/7/25, 2/5/25, 2/6/25, 2/20/25, 2/19/25, 2/21/25, 3/5/25
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	yes
Other damage	
Insured losses	
Federal/state disaster relief funding	
Source of information	

Comments	

Assessment of Previously Proposed Actions

Jurisdiction: _____

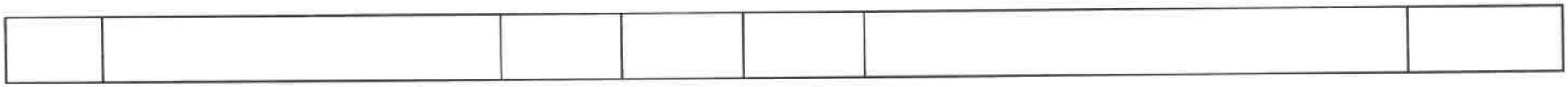
Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksh eet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

The worksheet should include information on the status of the action and progress made in implementation, if any. This includ es:

- *Completed Actions:* provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- *Ongoing Actions:* indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- *No Progress:* if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).*

	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – ✓ Delete – X Modify – M
		Complete	Ongoing	No Progress		
SHSD 2021.1	EMERGENCY PREPAREDNESS EDUCATION		X			Keep
SHSD 2021.2	MUTUAL AID AGREEMENTS		X			Keep
SHSD 2021.3	PLAN REASSESSMENT	x			Completed as part of the 2026 plan update	C
SHSD 2021.4	REPRESENTATIVE FOR COUNTY HAZARD MITIGATION STEERING COMMITTEE	x			Completed as part of the 2026 plan update	C
SHSD 2021.5	STORM SHELTERS		x			Keep
SHSD 2021.6	PANDEMIC PERSONAL PROTECTIVE EQUIPMENT (PPE)				No longer covered in plan	Delete



Multi-Jurisdictional Hazard Mitigation Plan Data Collection Questionnaire for Local Governments

COUNTY: Harrison County

JURISDICTION: Harrison County Community Hospital District

RETURN BY: Lisa McGhee R.N. + Safety Officer

Please complete this data collection questionnaire as accurately and completely as possible as this information will appear in the mitigation plan. ***A data collection questionnaire must be completed for each "jurisdiction" that wishes to be included in the plan.*** According to FEMA's definition a jurisdiction is any local government, including counties, municipalities, cities, towns, school districts, special districts, councils of government, and tribal organizations. Any of these entities as well as publicly funded colleges and universities that do not participate in the planning process ***will not*** be eligible applicants for FEMA mitigation funding programs.

PREPARED BY: Lisa McGhee

PHONE: 660 425 - 0303 office 660-483-0545 Cell

EMAIL: lisa.mcghee@hcchospital.org DATE: 10/6/25

Please return questionnaires by mail, email, or fax to:

Name: Amanda George – Transportation Planner & Hazard Mitigation Specialist

Address: Green Hills Regional Planning Commission, 810 Washington St., Trenton, MO 64683

Email: amanda@ghrpc.org

Phone: (660) 359-5636 ext. 11

CAPABILITY ASSESSMENT

& INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION

The purpose of this section is to collect information to document existing capabilities as well as determine existing plans, studies, reports, and technical information that may need to be incorporated in the mitigation plan. Although some of this information may have been captured in your previous mitigation plan, it is important to ensure this information is current in the plan update

Please indicate which of the following your jurisdiction has in place. For elements that do not pertain to your type of public entity, please indicate with "N/A". If applicable, please provide a completion date for the element. If your jurisdiction does not have a particular element, and a higher level of government has the authority pertaining to your jurisdiction, please indicate this in the comments column. If your jurisdiction has any of the ***underlined and bold*** elements, ***please provide a copy of the document*** to the contact listed on the front.

CAPABILITIES	***Status, Including Date of Document or Policy***
PLANNING CAPABILITIES	
Comprehensive Plan	
Builder's Plan	
Capital Improvement Plan	
City Emergency Operations Plan	
County Emergency Operations Plan	
Local Recovery Plan	
County Recovery Plan	
City Mitigation Plan	
County Mitigation Plan	
Debris Management Plan	
Economic Development Plan	
Transportation Plan	
Land-use Plan	

Flood Mitigation Assistance (FMA) Plan	
Watershed Plan	
Firewise or other fire mitigation plan	
School Mitigation Plan	
Critical Facilities Plan HCCH	Policy In place updated annually
POLICIES/ORDINANCE	
Zoning Ordinance	
Building Code	
Floodplain Ordinance	
Subdivision Ordinance	
Tree Trimming Ordinance	
Nuisance Ordinance	
Stormwater Ordinance	
Drainage Ordinance	
Site Plan Review Requirements	
Historic Preservation Ordinance	
Landscape Ordinance	
Seismic Construction Ordinance	
PROGRAM	
Zoning/Land Use Restrictions	
Codes Building Site/Design	
Hazard Awareness Program	Reviewed + update annually on all locations.
National Flood Insurance Program (NFIP)	
NFIP Community Rating System (CRS) program If so, what is your current level rating?	
National Weather Service (NWS) Storm Ready	

Firewise Community Certification	
Building Code Effectiveness Grading (BCEGs)	
ISO Fire Rating	
Economic Development Program	
Land Use Program	
Public Education/Awareness	
Property Acquisition	
Planning/Zoning Boards	
Stream Maintenance Program	
Tree Trimming Program	
Engineering Studies for Streams (Local/County/Regional)	
Mutual Aid Agreements	
STUDIES/REPORTS/MAPS	
Hazard Analysis/Risk Assessment (Local)	
Hazard Analysis/Risk Assessment (County)	
Flood Insurance Maps	
FEMA Flood Insurance Study (Detailed)	
Evacuation Route Map	
Critical Facilities Inventory	
Vulnerable Population Inventory	
Land Use Map	
STAFF/DEPARTMENT ***Full Time or Part Time, if applicable?***	
Building Code Official	
Building Inspector	
Mapping Specialist (GIS)	

Engineer	
Development Planner	
Public Works Official	
Emergency Management Director	Internal EMD
NFIP Floodplain Administrator	
Emergency Response Team	Hosp Emerg Response Team FEMA trained
Hazardous Materials Expert	
Local Emergency Planning Committee	HCCH as Employees on Harrison CO LEPC
County Emergency Management Commission	
Sanitation Department	
Transportation Department	
Economic Development Department	
Housing Department	
Historic Preservation	
NON-GOVERNMENTAL ORGANIZATIONS (NGOS) *Is there a local chapter? Yes or No*	
American Red Cross N	
Salvation Army	
Veterans Groups	
Local Environmental Organization	
Homeowner Associations	
Neighborhood Associations	
Chamber of Commerce Y	
Community Organizations (Lions, Kiwanis, etc.)	
LOCAL FUNDING AVAILABILITY *Answer Yes or No* Unknown	

Apply for Community Development Block Grants	unknown
Fund projects through Capital Improvements funding	
Authority to levy taxes for a specific purpose	
Fees for water, sewer, gas, or electric services	
Impact fees for new development	
Ability to incur debt through general obligation bonds	
Ability to incur debt through special tax bonds	
Ability to incur debt through private activities	
Withhold spending in hazard prone areas	

For plan updates, the plan maintenance process outlined in your previous plan requires all participating jurisdictions to incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate. A key element of effective implementation of mitigation is for the mitigation plan to be incorporated into existing authorities, policies, programs, and resources. Next to each applicable planning mechanism, indicate how your jurisdiction incorporated the previous mitigation plan. If no incorporation has occurred, please explain, including background information detailing any challenges preventing incorporation. We did not submit previous plan.

Planning Capabilities	Method of Incorporation Since Previous Plan or Challenges Preventing Incorporation
Comprehensive Plan	
Builder's Plan	
Capital Improvement Plan	

Local Recovery Plan	
County Recovery Plan	
Debris Management Plan	
Economic Development Plan	
Transportation Plan	
Land-use Plan	
Watershed Plan	
Firewise or other Fire Mitigation Plan such as Community Wildfire Protection Plan	

Additional Questions

1. How is your government structure organized? (Commission, Mayor/City Council, how many members)
   Board of Directors (6 members + Sec.)

2. List any past or ongoing public education or information programs, such as for responsible water use, fire safety, household preparedness, or environmental education. All employees FEM 100 Trained
   All employees receive Safety Training on hire + annually. This training includes Fire Safety, Weather Safety, Material Safety Data Sheets. Armed Intruder, Bomb Threats. Emerg Procedures. Critical Infrastructure.

3. List any other past or ongoing projects or programs designed to reduce disaster losses, these may include projects to protect critical facilities. Be sure to include pending or approved projects submitted for FEMA mitigation grants.
   FEMA Trained Hospital Emergency Response Team.
   HAZMAT + Chemical Decontamination.

4. Describe any hazard-related concerns or issues regarding the vulnerability of special needs populations, such as the elderly, disabled, low-income, or migrant farm workers.

5. How many outdoor warning sirens are in your community? unknown

   How are they activated (indicate responsible department/personnel)?

6. Does your community utilize any other warning systems such as Cable Override, Reverse 911, etc? If so, please describe.

7. Does your community have designated public tornado shelters/saferooms? If so, are they constructed in accordance with FEMA standards? NO

   Please provide address locations:

8. List residential, commercial and industrial development in your jurisdiction since last plan update.

9. Describe development trends and expected growth areas. Is any new development expected to occur in the 100-year floodplain? Is any new development expected to occur in any other known hazard areas? If possible, please provide a map indicating potential/planned growth areas.

10. Are any new facilities or infrastructure planned for construction during the next five years? If so, please provide facility name and purpose along with proposed locations, if known.

New Hospital under construction currently. - Sched Move in date June 2026.

11. Please list major employers in your jurisdiction with an estimated number of employees.

HCCHD employs approx 260 people.

12. Please list Mitigation Planning Committee members who served during the development of the previously approved plan. Was the process set forth for monitoring the implementation of the previously approved mitigation plan adhered to? Did the Committee meet as was specified in the previously approved plan? Why or why not?

No participation with previous plan

13. Describe your jurisdiction's participation in the NFIP. Include information about how compliance with the NFIP is enforced locally.

Vulnerability Assessment

The purpose of this worksheet is to assess the vulnerable buildings, populations, critical facilities, infrastructure, and other important assets in your community by using the best available data to complete the table. Use the table on the next page to compile a detailed inventory of specific assets at risk including critical facilities and infrastructure; natural, cultural, and historical assets; and economic assets. In the natural hazard column of the asset inventory table, indicate which of the following hazards the asset is vulnerable to. Use the following abbreviations.

Natural Hazards	
Flooding (Major & Flash) – RF	Drought – D
Levee Failure – LF	Extreme Temperature – ET
Dam Failure – DF	Severe Thunderstorm (incl. wind, hail, lightning) – ST
Earthquake – EQ	Severe Winter Weather (incl. snow, ice, severe cold) – SWW
Land Subsidence /Sinkholes – LSS	Tornadoes – T
Wildfire - W	

Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA's HAZUS-MH loss estimation software uses the following three categories of critical assets. ***Essential facilities*** are those that if damaged would have devastating impacts on disaster response and/or recovery. ***High potential loss facilities*** are those that would have a high loss or impact on the community. ***Transportation and lifeline facilities*** are third category of critical assets; examples are provided below.

Essential Facilities	**High Potential Loss Facilities**	**Transportation and Lifeline**
Hospitals and other medical facilities Police stations Fire station Emergency Operations Centers	Power plants Dams/levees Military installations Hazardous material sites Schools Shelters Day care centers Nursing homes Main government buildings	Highways, bridges, and tunnels Railroads and facilities Bus facilities Airports Water treatment facilities Natural gas facilities and pipelines Oil facilities and pipelines Communications facilities

Economic Assets

Economic assets at risk may include major employers or primary economic sectors, such as agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from disaster.

Asset Inventory

Please list critical facilities and other community assets, the square feet, values, and occupancy/capacity. If not applicable, enter "N/A". In the last column, use the codes from the previous page to indicate hazards to which the asset is vulnerable. Add as many rows as needed. If this information is available in GIS format, please provide to the contact listed on the first page.

Critical Facilities

Name of Asset	Address	Natural Hazards
Essential Facilities such as hospitals and other medical facilities, police and fire stations, Emergency Operations Centers		
Harrison Co. Com. Hospital	2600 Miller St Bethany MO 64424	Weather
Bethany Medical Clenic	3202 Miller St Bethany MO 64424	Weather
North Harrison Med Clenic	16027 Locust St Eagleville MO 64442	Weather
Pattonsburg Med Clenic (Daviess Co)	110 Central Ave PO Box 124 Pattonsburg MO 64670	Weather.

High Potential Loss Facilities such as power plants, dams/levees, military installations, hazardous materials sites, shelters, day care centers, nursing homes, main government buildings (Do not include schools – they will be reported by the school districts)		
Transportation and Lifelines such as highways, bridges, and tunnels; railroads and facilities, bus facilities, airports, water treatment facilities, natural gas facilities and pipelines, oil facilities and pipelines, communications facilities		

Economic Assets (Major Employers, etc.)

Asset	Address	Product/Service	Number of Employees	Hazards

Historic Hazard Events

Please fill out the sheet on the next page for each significant hazard event that affected Your Jurisdiction. ***Make as many copies as necessary to record all events and complete them with as much detail as possible.*** This includes all events associated with the hazards listed below that have caused previous damage in your jurisdiction. It is especially important to capture events that either were not included in the previous Hazard Mitigation Plan or occurred since the plan was completed. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Jurisdiction	HCCH Dist.
Type of event	Thunderstorm - Straight line Winds
Nature and magnitude of event	
Location	2600 Miller St Bethany MO 64424
Date of event	June 29th 2023
Injuries	ϕ
Deaths	ϕ
Property damage	Glass entryway Damaged - Sliding Glass Doors damaged.
Infrastructure damage	
Crop damage	NA
Business/economic impacts	NA
Road/school/other closures	NA
Other damage	
Insured losses	
Federal/state disaster relief funding	NA
Source of information	
Comments	Pts rerouted into Hosp. throug Emergency Dept.

Assessment of Previously Proposed Actions

Jurisdiction: _____

Green Hills RPC has provided a list of actions proposed in the previously approved plan for each jurisdiction. Use the worksheet below to evaluate whether each action is still current, feasible, desirable, and/or creates benefit that outweighs the cost.

The worksheet should include information on the status of the action and progress made in implementation, if any. This includes:

- ***Completed Actions:*** provide a description of the implementation process. This may be a success story you would like to publicize in your community.
- ***Ongoing Actions:*** indicate what activity has occurred during the previous five years and indicate if this program is still viable enough that it should be carried on into the future.
- ***No Progress:*** if no progress has been made in the implementation of a given action, discuss why. Note that implementation is not a requirement. However, if no progress has been made, perhaps this is an action that would be appropriate to delete in the updated plan.

During review of the previously approved actions, consider whether any new actions should be proposed. Perhaps damages from a recent hazard event have indicated the need for new approaches to protect property and life. Review the problem statements from the updated plan for ideas. Also review the FEMA publication ***Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (January 2013).***

#	Action	Status			Description of Implementation Activities or Reasons for Lack of Progress	Keep – ✓ Delete – X Modify – M
		Complete	Ongoing	No Progress		

STAPLEE Worksheet	
Name of Jurisdiction:	Harrison
Action or Project	
Action/Project Number:	County 2025.1
Name of Action or Project:	Shelter Inventory
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Em. Services

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	0
E: Will the project have either a neutral or positive impact on the natural **Environment**?	3
Will historic structures be saved or protected?	0
Could it be implemented quickly?	3
STAPLEE SCORE	21

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.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
MITIGATION EFFECTIVENESS SCORE		10
TOTAL SCORE (STAPLEE + Mitigation Effectiveness)		31

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet	
Name of Jurisdiction:	Harrison Co.
Action or Project	
Action/Project Number:	2025.2
Name of Action or Project:	SAFETY AUDITS
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	EDUCATION + OUTREACH

STAPLEE Criteria Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it **Socially** Acceptable	2
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	2
L: Is there **Legal** authority to implement?	2
E: Is it **Economically** beneficial?	3
E: Will the project have either a neutral or positive impact on the natural **Environment**?	3
Will historic structures be saved or protected?	2
Could it be implemented quickly?	3
STAPLEE SCORE	23

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	20
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	43

☒ High Priority (30+ points)	☐ Medium Priority (25 - 29 points)	☐ Low Priority (<25 points)

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet		
Name of Jurisdiction:	Harrison Co.	
Action or Project		
Action/Project Number:	County 2025.3	
Name of Action or Project:	M/ Migration Education	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Education + Outreach	
STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		**Score**
S: Is it **Socially** Acceptable		2
T: Is it **Technically** feasible and potentially successful?		2
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		3
P: Is it **Politically** acceptable?		2
L: Is there **Legal** authority to implement?		3
E: Is it **Economically** beneficial?		2
E: Will the project have either a neutral or positive impact on the natural **Environment**?		1
Will historic structures be saved or protected?		2
Could it be implemented quickly?		2
	STAPLEE SCORE	19
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.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
	MITIGATION EFFECTIVENESS SCORE	10
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	29

☐ ☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet	
Name of Jurisdiction:	HARRISON COUNTY
Action or Project	
Action/Project Number:	COUNTY 2025.4
Name of Action or Project:	SNOW REMOVAL
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	STRUCTURE & INFRASTRUCTURE

STAPLEE Criteria Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	3
E: Will the project have either a neutral or positive impact on the natural **Environment**?	2
Will historic structures be saved or protected?	1
Could it be implemented quickly?	3
STAPLEE SCORE	24

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	20
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	34

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet		
Name of Jurisdiction:	Harrison Co.	
Action or Project		
Action/Project Number:	County 2025.5	
Name of Action or Project:	Education on Warning Systems	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Education + Outreach	

STAPLEE Criteria Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	3
E: Will the project have either a neutral or positive impact on the natural **Environment**?	2
Will historic structures be saved or protected?	1
Could it be implemented quickly?	3
STAPLEE SCORE	24

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	20
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	34

☐ High Priority (30+ points)	☐ Medium Priority (25 - 29 points)	☐ Low Priority (<25 points)

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet		
Name of Jurisdiction:	Harrison County	
Action or Project		
Action/Project Number:	County 2025.6	
Name of Action or Project:	Disaster Exercises	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Emergency Services	
STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		**Score**
S: Is it **Socially** Acceptable		3
T: Is it **Technically** feasible and potentially successful?		2
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		2
P: Is it **Politically** acceptable?		2
L: Is there **Legal** authority to implement?		3
E: Is it **Economically** beneficial?		0
E: Will the project have either a neutral or positive impact on the natural **Environment**?		3
Will historic structures be saved or protected?		1
Could it be implemented quickly?		2
	STAPLEE SCORE	19
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.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
	MITIGATION EFFECTIVENESS SCORE	10
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	29

☐ High Priority (30+ points)	☒ Medium Priority (25 - 29 points)	☐ Low Priority (<25 points)

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet		
Name of Jurisdiction:	Harrison County	
Action or Project		
Action/Project Number:	County 2025.4	
Name of Action or Project:	grants for Road + Bridge	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Structure + Infrastructure	
STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		**Score**
S: Is it **Socially** Acceptable		2
T: Is it **Technically** feasible and potentially successful?		2
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		2
P: Is it **Politically** acceptable?		2
L: Is there **Legal** authority to implement?		3
E: Is it **Economically** beneficial?		2
E: Will the project have either a neutral or positive impact on the natural **Environment**?		2
Will historic structures be saved or protected?		2
Could it be implemented quickly?		1
	STAPLEE SCORE	18
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.	6
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	16
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	34

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet		
Name of Jurisdiction:	Harrison County	
Action or Project		
Action/Project Number:	County 2025.8	
Name of Action or Project:	Critical Facilites Backups	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Structure + Infrastructure	
STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		**Score**
S: Is it **Socially** Acceptable		3
T: Is it **Technically** feasible and potentially successful?		3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		2
P: Is it **Politically** acceptable?		2
L: Is there **Legal** authority to implement?		3
E: Is it **Economically** beneficial?		1
E: Will the project have either a neutral or positive impact on the natural **Environment**?		1
Will historic structures be saved or protected?		1
Could it be implemented quickly?		0
	STAPLEE SCORE	16
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.	7
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	7
	MITIGATION EFFECTIVENESS SCORE	14
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	30

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet	
Name of Jurisdiction:	Harrison County
Action or Project	
Action/Project Number:	County 2025.9
Name of Action or Project:	Upgrades for Infrastructure
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Structure + Infrastructure

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	2
E: Will the project have either a neutral or positive impact on the natural **Environment**?	1
Will historic structures be saved or protected?	1
Could it be implemented quickly?	1
STAPLEE SCORE	20

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	20
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	40

☑ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet		
Name of Jurisdiction:	Harrison County	
Action or Project		
Action/Project Number:	County 2025.10	
Name of Action or Project:	Debris Removal	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Structure + Infrastructure	
STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		**Score**
S: Is it **Socially** Acceptable		3
T: Is it **Technically** feasible and potentially successful?		3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		3
P: Is it **Politically** acceptable?		2
L: Is there **Legal** authority to implement?		2
E: Is it **Economically** beneficial?		2
E: Will the project have either a neutral or positive impact on the natural **Environment**?		2
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE SCORE		21
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.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
MITIGATION EFFECTIVENESS SCORE		15
TOTAL SCORE (STAPLEE + Mitigation Effectiveness)		36

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet		
Name of Jurisdiction:	Harrison Co.	
Action or Project		
Action/Project Number:	County 2025.11	
Name of Action or Project:	Mutal Aid Agreements	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Emergency services	
STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		**Score**
S: Is it **Socially** Acceptable		3
T: Is it **Technically** feasible and potentially successful?		3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		3
P: Is it **Politically** acceptable?		2
L: Is there **Legal** authority to implement?		3
E: Is it **Economically** beneficial?		2
E: Will the project have either a neutral or positive impact on the natural **Environment**?		3
Will historic structures be saved or protected?		1
Could it be implemented quickly?		3
	STAPLEE SCORE	21
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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	9
	MITIGATION EFFECTIVENESS SCORE	19
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	30

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet	
Name of Jurisdiction:	Harrison County
Action or Project	
Action/Project Number:	County 2025: 12
Name of Action or Project:	Warning Sirens
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Structure + Infastructre Emergency Services

STAPLEE Criteria Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it **Socially** Acceptable	2
T: Is it **Technically** feasible and potentially successful?	2
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	2
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	2
E: Will the project have either a neutral or positive impact on the natural **Environment**?	3
Will historic structures be saved or protected?	0
Could it be implemented quickly?	1
STAPLEE SCORE	18

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
	MITIGATION EFFECTIVENESS SCORE	15
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	33

☒ High Priority (30+ points)	☐ Medium Priority (25 - 29 points)	☐ Low Priority (<25 points)

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet	
Name of Jurisdiction:	Harrison County
Action or Project	
Action/Project Number:	County 2025.13
Name of Action or Project:	Tree Trimming
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Structure + Infrastructure

STAPLEE Criteria Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it **Socially** Acceptable	2
T: Is it **Technically** feasible and potentially successful?	2
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	2
P: Is it **Politically** acceptable?	1
L: Is there **Legal** authority to implement?	1
E: Is it **Economically** beneficial?	0
E: Will the project have either a neutral or positive impact on the natural **Environment**?	1
Will historic structures be saved or protected?	0
Could it be implemented quickly?	0
STAPLEE SCORE	9

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.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
	MITIGATION EFFECTIVENESS SCORE	10
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	19

☐ High Priority (30+ points)	☐ Medium Priority (25 - 29 points)	☒ Low Priority (<25 points)

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet		
Name of Jurisdiction:	Harrison County	
Action or Project		
Action/Project Number:	County 2025.14	
Name of Action or Project:	Steering Committee	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Education + Outreach	
STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		**Score**
S: Is it **Socially** Acceptable		2
T: Is it **Technically** feasible and potentially successful?		2
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		3
P: Is it **Politically** acceptable?		2
L: Is there **Legal** authority to implement?		3
E: Is it **Economically** beneficial?		1
E: Will the project have either a neutral or positive impact on the natural **Environment**?		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		3
	STAPLEE SCORE	19
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.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
	MITIGATION EFFECTIVENESS SCORE	10
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	29

☐ High Priority (30+ points)	☑ Medium Priority (25 - 29 points)	☐ Low Priority (<25 points)

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet

Name of Jurisdiction:	Harrison Co.
Action or Project	
Action/Project Number:	County 2025.15
Name of Action or Project:	Upgrade Road Tubes
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Structure & Infrastructure

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	3
E: Will the project have either a neutral or positive impact on the natural **Environment**?	3
Will historic structures be saved or protected?	2
Could it be implemented quickly?	0
STAPLEE SCORE	23

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	20
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	43

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Caleb Jacobs EMD 785 840-4690

STAPLEE Worksheet	
Name of Jurisdiction:	CITY OF BETHANY
Action or Project	
Action/Project Number:	CB 2025.1
Name of Action or Project:	EDUCATION FOR DEVELOPERS
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	EDUCATION + OUTREACH

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	2
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	2
E: Will the project have either a neutral or positive impact on the natural **Environment**?	3
Will historic structures be saved or protected?	0
Could it be implemented quickly?	3
STAPLEE SCORE	22

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	20
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	42

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number)

BETHANY FIRE CHIEF
6609257912

STAPLEE Worksheet

Name of Jurisdiction:	CITY OF BETHANY
Action or Project	
Action/Project Number:	CB 2025.2
Name of Action or Project:	WEATHER ALERTS
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	EDUCATION ALERTS

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	3
E: Will the project have either a neutral or positive impact on the natural **Environment**?	3
Will historic structures be saved or protected?	3
Could it be implemented quickly?	3
STAPLEE SCORE	27

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	20
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	47

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number)

Bethany Fire Chief
6604257912

STAPLEE Worksheet		
Name of Jurisdiction:	City of Bethany	
Action or Project		
Action/Project Number:	CB 2025 3	
Name of Action or Project:	Facilities Back Ups	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Emergency Services	
STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		**Score**
S: Is it **Socially** Acceptable		3
T: Is it **Technically** feasible and potentially successful?		3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		3
P: Is it **Politically** acceptable?		3
L: Is there **Legal** authority to implement?		3
E: Is it **Economically** beneficial?		2
E: Will the project have either a neutral or positive impact on the natural **Environment**?		2
Will historic structures be saved or protected?		0
Could it be implemented quickly?		0
	STAPLEE SCORE	19
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.	7
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
	MITIGATION EFFECTIVENESS SCORE	12
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	31

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number)

Bethany Fire Chief
6609259912

STAPLEE Worksheet

Name of Jurisdiction:	BETHANY
Action or Project	
Action/Project Number:	CB 2025.4
Name of Action or Project:	DEBRIS + BRUSH CLEARING
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	STRUCTURE + INFRA STRUCTURE

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	2
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	2
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	2
E: Will the project have either a neutral or positive impact on the natural **Environment**?	3
Will historic structures be saved or protected?	3
Could it be implemented quickly?	3
STAPLEE SCORE	24

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.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
	MITIGATION EFFECTIVENESS SCORE	10
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	34

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number)

Bethany Fire Chief
6604257912

STAPLEE Worksheet		
Name of Jurisdiction:	CITY OF BETHANY	
Action or Project		
Action/Project Number:	CB 2025.5	
Name of Action or Project:	MITIGATION EDUCATION	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	EDUCATION + OUTREACH	
STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		**Score**
S: Is it **Socially** Acceptable		3
T: Is it **Technically** feasible and potentially successful?		3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		3
P: Is it **Politically** acceptable?		3
L: Is there **Legal** authority to implement?		3
E: Is it **Economically** beneficial?		3
E: Will the project have either a neutral or positive impact on the natural **Environment**?		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
	STAPLEE SCORE	27
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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	20
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	47

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number)

Bethany Fire Chief
6604257912

STAPLEE Worksheet	
Name of Jurisdiction:	CITY OF BETHANY
Action or Project	
Action/Project Number:	CB 2025.6
Name of Action or Project:	MUTUAL AID Agreements
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Emergency Services

STAPLEE Criteria Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	2
E: Will the project have either a neutral or positive impact on the natural **Environment**?	3
Will historic structures be saved or protected?	3
Could it be implemented quickly?	3
STAPLEE SCORE	26

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.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
	MITIGATION EFFECTIVENESS SCORE	10
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	36

☑ High Priority (30+ points)	☐ Medium Priority (25 - 29 points)	☐ Low Priority (<25 points)

Completed by
(Name, Title, Phone Number)

Bethany Fire Chief
6604257912

STAPLEE Worksheet

Name of Jurisdiction:	CITY OF BETHANY
Action or Project	
Action/Project Number:	CB 2025.7
Name of Action or Project:	STORM SHELTERS
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	STRUCTURE + INFASTRUCTURE

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	1
E: Will the project have either a neutral or positive impact on the natural **Environment**?	0
Will historic structures be saved or protected?	0
Could it be implemented quickly?	1
STAPLEE SCORE	17

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	20
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	37

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number)

Bethany Fire Chief
6609257912

STAPLEE Worksheet

Name of Jurisdiction:	BETHANY
Action or Project	
Action/Project Number:	CB 2025.8
Name of Action or Project:	SPOTTER Training
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	EDUCATION + OUTREACH

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	3
E: Will the project have either a neutral or positive impact on the natural **Environment**?	3
Will historic structures be saved or protected?	0
Could it be implemented quickly?	3
STAPLEE SCORE	24

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
	MITIGATION EFFECTIVENESS SCORE	15
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	39

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number)

Bethany Police Chief
6604257912

STAPLEE Worksheet	
Name of Jurisdiction:	BETHANY
Action or Project	
Action/Project Number:	CB-2025.9
Name of Action or Project:	NFIP
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	PLANNING + REGULATION

STAPLEE Criteria Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it **Socially** Acceptable	1
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	1
L: Is there **Legal** authority to implement?	3
E: Is it **Economically** beneficial?	3
E: Will the project have either a neutral or positive impact on the natural **Environment**?	3
Will historic structures be saved or protected?	3
Could it be implemented quickly?	2
STAPLEE SCORE	22

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.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
	MITIGATION EFFECTIVENESS SCORE	20
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	42

☒ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number)

Bethany Floor Chief
660 425 7912

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: FACILITY BACKUP	**Jurisdiction:** BLYTHDALE
Action ID: VB 2025.1	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		2
Will historic structures be saved or protected?		0
Could it be implemented quickly?		2
STAPLEE Score		21

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 31

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): TREASURER

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: PEBMS Removal	**Jurisdiction:** Bly Titdale
Action ID: VI3 2025.2	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		2
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		2
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		25

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 45

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Treasurer

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: EDUCATION	**Jurisdiction:** BLYTHDALE
Action ID: VB 2025.3	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Treasurer

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: Storm Shelter	**Jurisdiction:** Blythdale
Action ID: VB 2025, 4	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		1
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		1
STAPLEE Score		20

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 40

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Treasurer

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: WEATHER ALERTS	**Jurisdiction:** BLYTHDALE
Action ID: UR 2025.5	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☑ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Treasurer

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: Vulnerable Population	**Jurisdiction:** Blythdale
Action ID: VB 2025L	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		2
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		1
L: Is there Legal authority to implement?		2
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		3
STAPLEE Score		19

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 39

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Treasurer

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: NFIP	**Jurisdiction:** BLYTHDALE
Action ID: UB 2025. 7	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		1
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		1
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		1
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		2
Could it be implemented quickly?		2
STAPLEE Score		20

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 30

Priority Level: ☐ High (30+ points) ☒ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): TREASURER

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: CC 2025.1 FACILITES BACKUP	**Jurisdiction:** CAINSVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		0
STAPLEE Score		20

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		30

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 30

Priority Level: ☑ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Rebecca Deskins @93 5315

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: DEBRIS REMOVAL	**Jurisdiction:** CAINSVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		1
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		25

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 35

Priority Level: ☑ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Rebecca Dennis 893 5315

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: CC 2025.3 Mitigation Education	**Jurisdiction:** CAINSVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Rebecca Dennis 893-6535

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: CC 2026.4 SHELTERS	**Jurisdiction:** CAINSVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		2
Will historic structures be saved or protected?		0
Could it be implemented quickly?		0
STAPLEE Score		19

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		15

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 34

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Rebecca Dawkins 893 5315

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: CC 2026.5 WEATHER ALERTS	**Jurisdiction:** CALIWSVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Rebecca Deskins 883 5315

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: CC 2025.6 VULNERABLE POPULATION.	**Jurisdiction:** CARTHAGE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		2
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		3
STAPLEE Score		22

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		15

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 37

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Rebecca Dilkins 293 5315

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: CC 2025.7 NFIP	**Jurisdiction:** CAIRSVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		1
T: Is it Technically feasible and potentially successful?		2
A: Does the jurisdiction have the administrative capacity to execute this action?		2
P: Is it Politically acceptable?		0
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		0
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		0
STAPLEE Score		14

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		15

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 29

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Rebecca Deskins 883 5315

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: ✓E 2025.1 Mitigation Education	**Jurisdiction:** EAGLEVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☑ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): TERESA PARSONS

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: VE 2025.2 WEATHER ALERTS	**Jurisdiction:** EAGLEVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): TERESA PARSONS

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: VE 2025.3 FACILITIES BACKUP	**Jurisdiction:** EAGLEVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		2
Will historic structures be saved or protected?		2
Could it be implemented quickly?		2
STAPLEE Score		23

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 33

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): TERESA PARSONS

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: VE 2025.4 DEBRIS REMOVAL	**Jurisdiction:** Eagleville
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		2
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		26

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 36

Priority Level: ☑ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Teresa Parsons

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: r E 2025.5 SHELTERS	**Jurisdiction:** EAGLEVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		0
STAPLEE Score		21

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		15

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 36

Priority Level: ☑High (30+ points) ☐Medium (25-29 points) ☐Low (less than 25 points)

Completed by (name/title/phone #): Teresa Parsons

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: VE 2025.6 VULNERABLE POPULATION	**Jurisdiction:** EAGLEVILLE
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		2
T: Is it Technically feasible and potentially successful?		2
A: Does the jurisdiction have the administrative capacity to execute this action?		1
P: Is it Politically acceptable?		1
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		1
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		3
STAPLEE Score		14

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 34

Priority Level: ☐High (30+ points) ☐Medium (25-29 points) ☐Low (less than 25 points)

Completed by (name/title/phone #): Teresa Parsons

STAPLEE Worksheet		
Name of Jurisdiction:	City of Gilman City	
Action or Project		
Action/Project Number: 2025-1		
Name of Action or Project:	Emergency Preparedness Education	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Education / Outreach	

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	2
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	2
E: Is it **Economically** beneficial?	3
E: Will the project have either a neutral or positive impact on the natural **Environment**?	2
Will historic structures be saved or protected?	1
Could it be implemented quickly?	2
STAPLEE SCORE	21

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.	7
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	-0-
	MITIGATION EFFECTIVENESS SCORE	7
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	28

☐ **High Priority (30+ points)**	☒ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Tessa Petrus City Clerk 660876-5613

STAPLEE Worksheet		
Name of Jurisdiction:	City of Gilman City	
Action or Project		
Action/Project Number:	2021-2	
Name of Action or Project:	Weather Alerts	
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Emergency Services	
STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0		**Score**
S: Is it **Socially** Acceptable		3
T: Is it **Technically** feasible and potentially successful?		2
A: Does the jurisdiction have the **Administrative** capacity to execute this action?		2
P: Is it **Politically** acceptable?		3
L: Is there **Legal** authority to implement?		0
E: Is it **Economically** beneficial?		3
E: Will the project have either a neutral or positive impact on the natural **Environment**?		1
Will historic structures be saved or protected?		1
Could it be implemented quickly?		2
	STAPLEE SCORE	17
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.	9
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	7
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	26

☐ High Priority (30+ points)	☒ Medium Priority (25 - 29 points)	☒ Low Priority (<25 points)

Completed by
(Name, Title, Phone Number) Lisa Pettus City Clerk 660-876-5613

STAPLEE Worksheet	
Name of Jurisdiction:	City of Gilman City
Action or Project	
Action/Project Number:	2021.3
Name of Action or Project:	accessible Contact Information
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Emergency Services

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	2
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	1
E: Is it **Economically** beneficial?	1
E: Will the project have either a neutral or positive impact on the natural **Environment?**	0
Will historic structures be saved or protected?	1
Could it be implemented quickly?	2
STAPLEE SCORE	17

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.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	-0-
	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) Lisa Petrus City Clerk 660-876-5613

STAPLEE Worksheet

Name of Jurisdiction:	City of Gilman City
Action or Project	
Action/Project Number:	2021-4
Name of Action or Project:	Critical Facilities Back-up
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Emergency Services

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	2
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	2
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	1
E: Is it **Economically** beneficial?	2
E: Will the project have either a neutral or positive impact on the natural **Environment**?	0
Will historic structures be saved or protected?	0
Could it be implemented quickly?	1
STAPLEE SCORE	14

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.	8
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	8
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	22

☐ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☒ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Lisa Petrus City Clerk 660-876-5613

STAPLEE Worksheet	
Name of Jurisdiction:	City of Gilman City
Action or Project	
Action/Project Number:	2021.5
Name of Action or Project:	Debris Removal & Regular Brush Clearing
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Structure & Infrastructure

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	2
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	2
L: Is there **Legal** authority to implement?	1
E: Is it **Economically** beneficial?	3
E: Will the project have either a neutral or positive impact on the natural **Environment?**	3
Will historic structures be saved or protected?	0
Could it be implemented quickly?	3
STAPLEE SCORE	20

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.	5
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	5
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	25

☐ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☒ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Lisa Petrow City Clerk 660-876-5613

STAPLEE Worksheet

Name of Jurisdiction:	City of Gilman City
Action or Project	
Action/Project Number:	2021.6
Name of Action or Project:	Mutual Aid Agreements
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Emergency Services

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	3
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	2
E: Is it **Economically** beneficial?	3
E: Will the project have either a neutral or positive impact on the natural **Environment?**	3
Will historic structures be saved or protected?	2
Could it be implemented quickly?	3
STAPLEE SCORE	25

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.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
	MITIGATION EFFECTIVENESS SCORE	10
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	35

☐ ~~High Priority~~ ☒ (30+ points)	☐ Medium Priority (25 - 29 points)	☐ Low Priority (<25 points)

Completed by
(Name, Title, Phone Number) Lesa Petrw City Clerk 660-876-5613

* already in place.

STAPLEE Worksheet

Name of Jurisdiction:	City of Gilman City
Action or Project	
Action/Project Number:	2021.9
Name of Action or Project:	Storm Shelter / Safe Room
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Structure / Infrastructure

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	2
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	2
E: Is it **Economically** beneficial?	02
E: Will the project have either a neutral or positive impact on the natural **Environment?**	3
Will historic structures be saved or protected?	1
Could it be implemented quickly?	1
STAPLEE SCORE	20

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.	10
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	10
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	30

☐ ☑ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Tessa Petrow, City Clerk, 876-5613

STAPLEE Worksheet	
Name of Jurisdiction:	City of Gilman City
Action or Project	
Action/Project Number:	2021.10
Name of Action or Project:	Weather Spotter Training
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Prevention

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	2
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	1
P: Is it **Politically** acceptable?	2
L: Is there **Legal** authority to implement?	0
E: Is it **Economically** beneficial?	2
E: Will the project have either a neutral or positive impact on the natural **Environment?**	0
Will historic structures be saved or protected?	0
Could it be implemented quickly?	2
STAPLEE SCORE	12

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.	7
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	7
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	19

☐ **High Priority (30+ points)**	☐ **Medium Priority (25 - 29 points)**	☒ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Teresa Peters, City Clerk, 660-876-5613

STAPLEE Worksheet

Name of Jurisdiction:	
Action or Project	
Action/Project Number:	2021.11
Name of Action or Project:	Vulnerable Population Identification
Mitigation Category: (Prevention, Structure & Infrastructure, Natural Systems Protection, Education & Outreach, or Emergency Services)	Emergency Services

STAPLEE Criteria **Evaluation Rating** Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	**Score**
S: Is it **Socially** Acceptable	3
T: Is it **Technically** feasible and potentially successful?	3
A: Does the jurisdiction have the **Administrative** capacity to execute this action?	2
P: Is it **Politically** acceptable?	3
L: Is there **Legal** authority to implement?	2
E: Is it **Economically** beneficial?	1
E: Will the project have either a neutral or positive impact on the natural **Environment?**	0
Will historic structures be saved or protected?	0
Could it be implemented quickly?	3
STAPLEE SCORE	17

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.	9
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	9
	TOTAL SCORE (STAPLEE + Mitigation Effectiveness)	26

☐ **High Priority (30+ points)**	☒ **Medium Priority (25 - 29 points)**	☐ **Low Priority (<25 points)**

Completed by
(Name, Title, Phone Number) Kesa Petru City Clerk 660 876-5613

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title:	**Jurisdiction:**
Education	Ridgway
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☑ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Toni Storms Clerk

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: FACILITIES BACKUP	**Jurisdiction:** RIDGEWAY
Action ID: CR 2025.2	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		4
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		2
STAPLEE Score		28

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 32

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Toni STORMS

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title:	**Jurisdiction:**
DEBRIS REMOVAL	RIDGEWAY
Action ID: CR 2025.3	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		2
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		25

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 35

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): TONI STORMS CLERK

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: Shelters	**Jurisdiction:** Ridgway
Action ID: CR 2025.4	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		2
STAPLEE Score		23

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 43

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Toni Storms Clerk

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: CN # 2025.1 EDUCATION	**Jurisdiction:** NEW HAMPTON
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): CASSANDRA BAKER CLERK

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: CPH 2025.2 WEATHER ALERTS	**Jurisdiction:** NEW HAMPTON
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☑ ~~High~~ (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): CASSANDRA BAKER - CLERK

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: CIN # 2025.3 Backups	**Jurisdiction:** NEW Hampton
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		2
Will historic structures be saved or protected?		0
Could it be implemented quickly?		0
STAPLEE Score		19

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 29

Priority Level: ☑ ~~High~~ (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): CASSANDRA BAKER - CLERK

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: CNH 2025.4 DEBris management	**Jurisdiction:** NEW HAMPTON
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		2
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		3
STAPLEE Score		23

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 33

Priority Level: ☑ ~~High~~ (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Cassandra Baker Clark

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: CPH 2025.5 Shelters	**Jurisdiction:** New Hampton
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		0
STAPLEE Score		20

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 40

Priority Level: ☑ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Cassandra Baker - Clerk

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: CNH 2025.6 VULNERABLE POPULATION	Jurisdiction: NEW HAMPTON
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		2
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		2
P: Is it Politically acceptable?		2
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		3
STAPLEE Score		21

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 41

Priority Level: ☑ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): CASSANDRA BAKER CLERK

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: CN # 2025.7 NFIP	**Jurisdiction:** NEW HAMPTON
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		2
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		1
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		2
Could it be implemented quickly?		0
STAPLEE Score		19

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 29

Priority Level: ☐ High (30+ points) ☒ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): CASSANDRA BAKER CLERK

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: EDUCATION	**Jurisdiction:** NORTH HARRISON-III
Action ID: NHSD 2025.1	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): [illegible] 7000

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title:	**Jurisdiction:**
MUTUAL AID	NORTH HARRISON R-III
Action ID: NHSD 2025. 2	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☐High (30+ points) ☐Medium (25-29 points) ☐Low (less than 25 points)

Completed by (name/title/phone #): MPT

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: SHELTERS	**Jurisdiction:** NORTH HARRISON R-III
Action ID: NHSD 2025. 3	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		0
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		0
STAPLEE Score		18

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 38

Priority Level: ☐High (30+ points) ☐Medium (25-29 points) ☐Low (less than 25 points)

Completed by (name/title/phone #): MH NHSD

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: EDUCATION	**Jurisdiction:** RIDGEWAY R-V
Action ID: RSD 2025.1	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		2
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Michael FITZPATRICK

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: MUTUAL AID	**Jurisdiction:** RIDGEWAY R-V
Action ID: RSD 2025.2	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☑ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Michelle Pitts/RSD

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: SHELTERS	**Jurisdiction:** Ridgeway R-V
Action ID: RSD 2025.3	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		0
STAPLEE Score		24

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 44

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Michael FitzPatrick

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: STORM ENTRANCES	**Jurisdiction:** RIDGEWAY R-V
Action ID: RSD 2025.4	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		0
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		0
Could it be implemented quickly?		0
STAPLEE Score		18

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 38

Priority Level: ☐High (30+ points) ☐Medium (25-29 points) ☐Low (less than 25 points)

Completed by (name/title/phone #): method of Report

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: Education	**Jurisdiction:** South Harrison R-II
Action ID: SHSD 2025.1	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☑ ~~High~~ (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Michael Estes

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: Mutual Aid	**Jurisdiction:** South Harrison R-II
Action ID: SHSD 2025.2	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	5
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	5
Mitigation Effectiveness Score		10

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 37

Priority Level: ☑ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): MICHAEL ESTES

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title: SHELTERS	**Jurisdiction:** SOUTH HARRISON R-II
Action ID: SHSD 2025.3	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		2
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		26

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 46

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): MICHAEL ESTES

SHOW-ME COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Action Title:	**Jurisdiction:**
MUNICIPAL AID	HARRISON CO HOSPITAL
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☐ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): 215 A MCSHEE

SHOW-ME COUNTY
MULTI-JURISDICTIONAL
LOCAL HAZARD MITIGATION PLAN

Action Title: Education	**Jurisdiction:** Atchison co. Hospital
Action ID:	

STAPLEE Criteria	Evaluation Rating Definitely YES = 3 Maybe YES = 2 Probably NO = 1 Definitely NO = 0	Score
S: Is it Socially acceptable?		3
T: Is it Technically feasible and potentially successful?		3
A: Does the jurisdiction have the administrative capacity to execute this action?		3
P: Is it Politically acceptable?		3
L: Is there Legal authority to implement?		3
E: Is it Economically beneficial?		3
E: Will the project have either a neutral or positive impact on the natural environment? (score a 3 if positive impact, 2 if neutral impact)		3
Will historic structures be saved or protected?		3
Could it be implemented quickly?		3
STAPLEE Score		27

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 would be saved.	10
Will the implemented action result in a reduction of disaster damages?	Assign from 5-10 points based on the relative reduction of disaster damages.	10
Mitigation Effectiveness Score		20

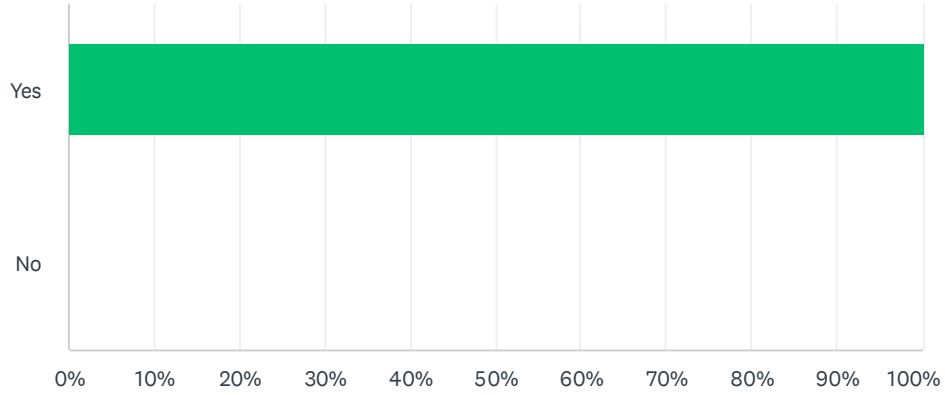
Total Score (STAPLEE Score + Mitigation Effectiveness Score): 47

Priority Level: ☒ High (30+ points) ☐ Medium (25-29 points) ☐ Low (less than 25 points)

Completed by (name/title/phone #): Lisa McGuire

Q1 During the past five years have you experienced a natural disaster?

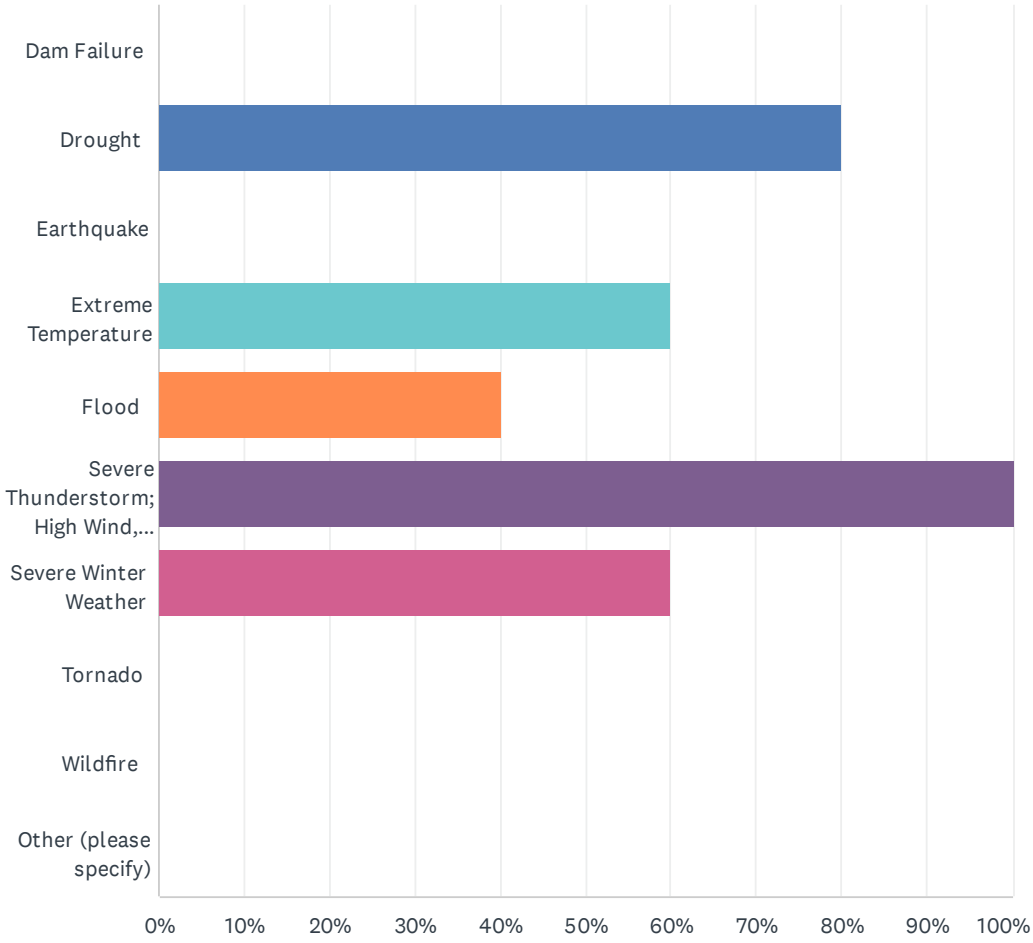
Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	5
No	0.00%	0
TOTAL		5

Q2 If "YES" which of the following natural disasters have you experienced?

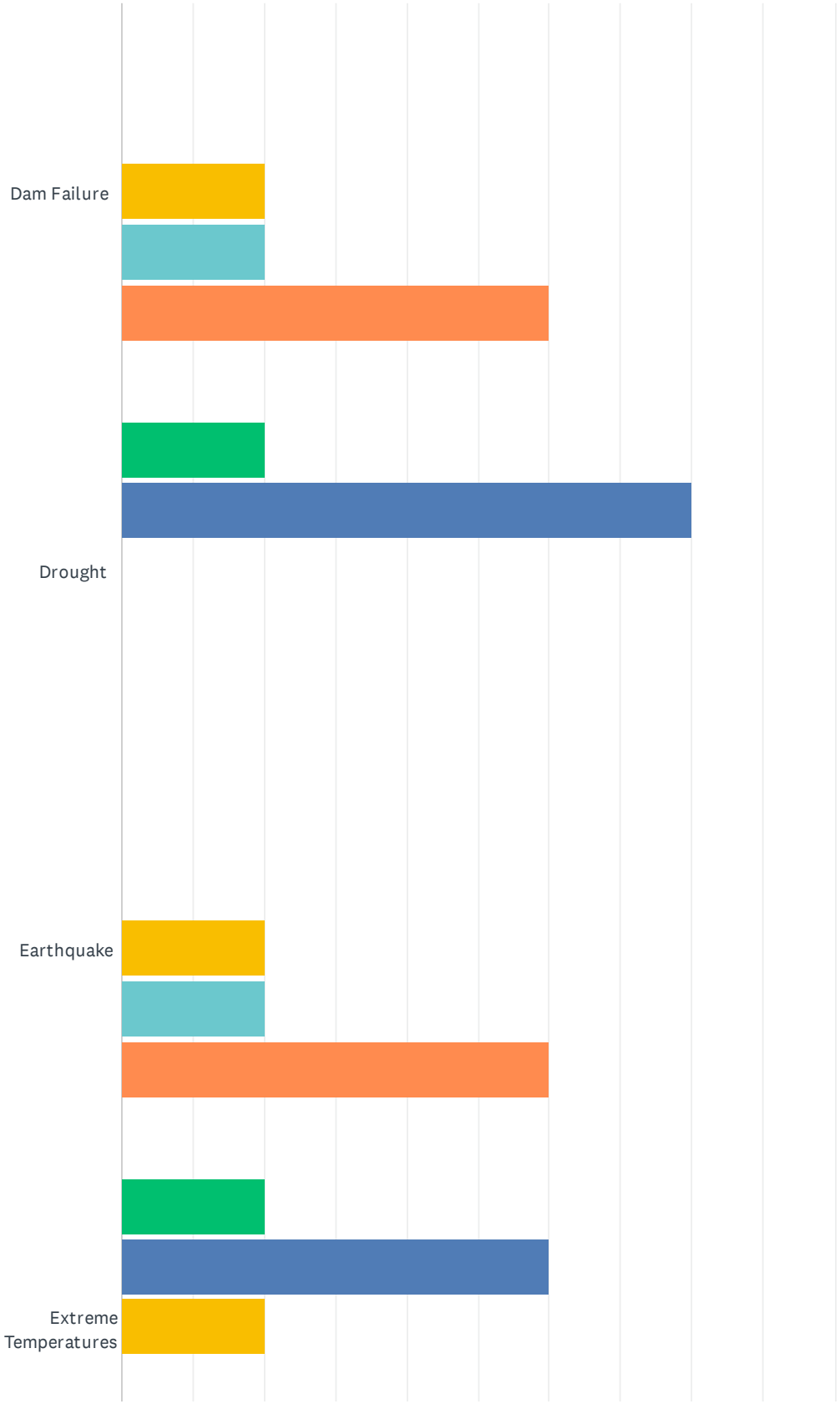
Answered: 5 Skipped: 0

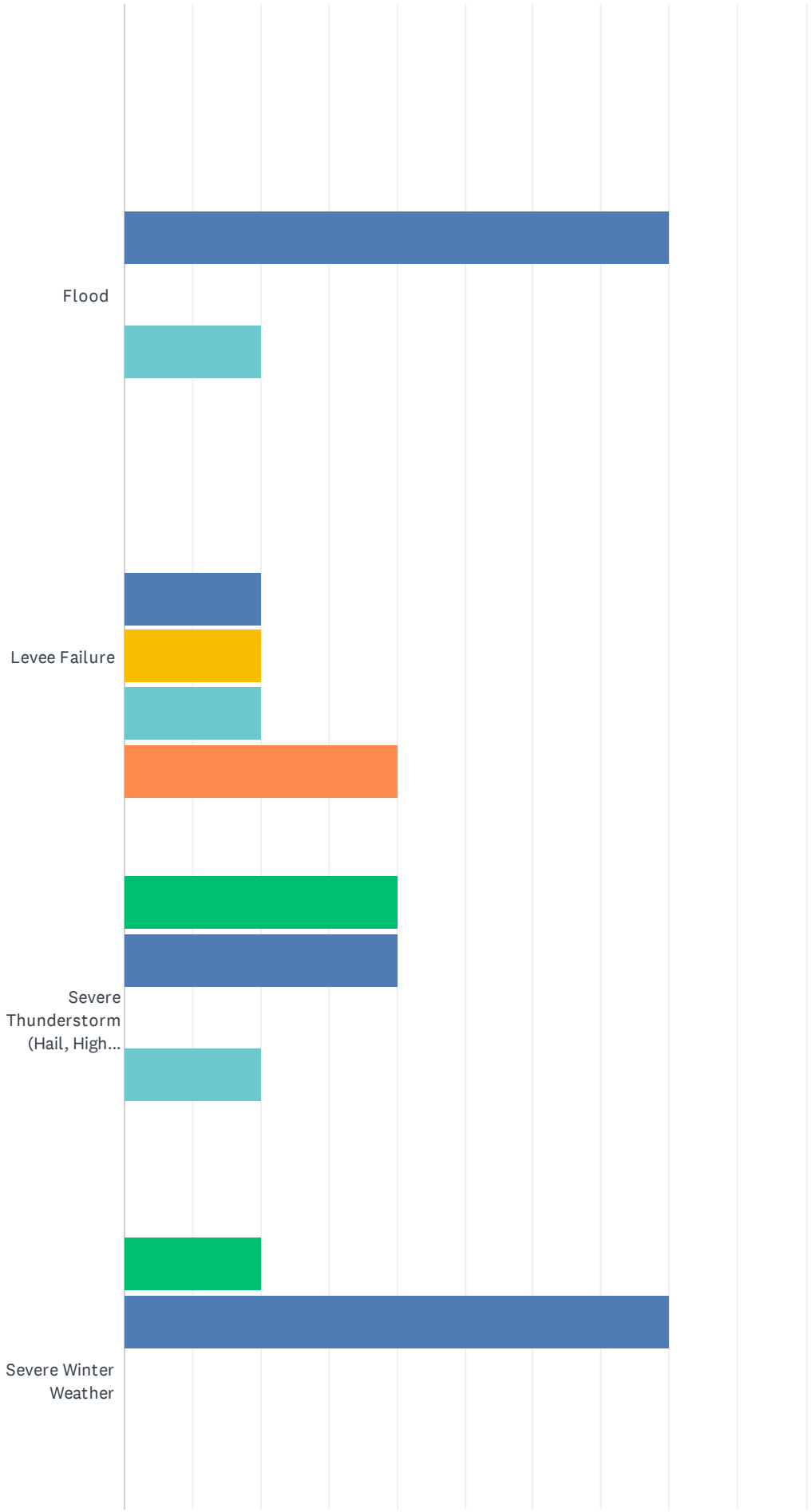


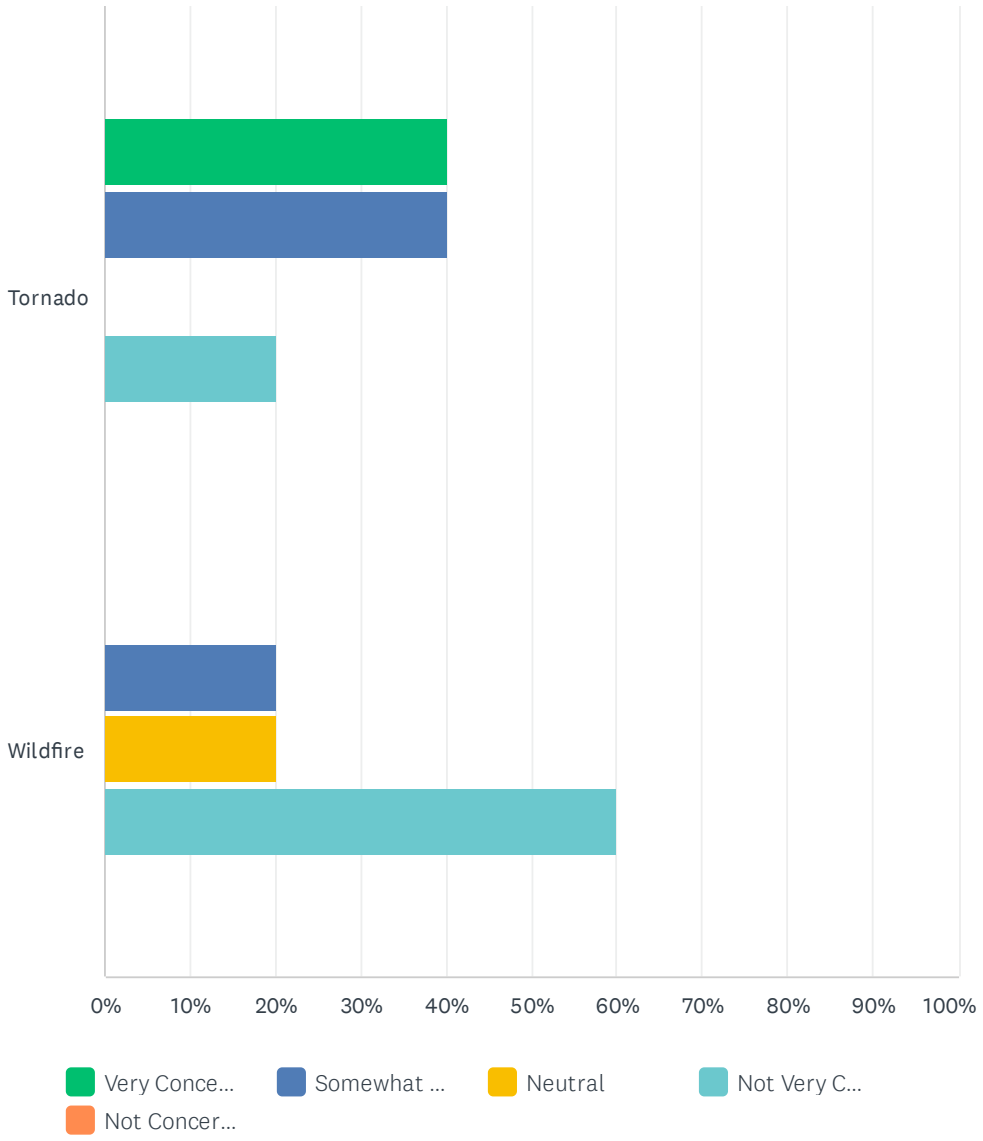
ANSWER CHOICES	RESPONSES	
Dam Failure	0.00%	0
Drought	80.00%	4
Earthquake	0.00%	0
Extreme Temperature	60.00%	3
Flood	40.00%	2
Severe Thunderstorm; High Wind, Lightning, and/or Hail	100.00%	5
Severe Winter Weather	60.00%	3
Tornado	0.00%	0
Wildfire	0.00%	0
Other (please specify)	0.00%	0
Total Respondents: 5		

Q3 How concerned are you about the following natural disasters?

Answered: 5 Skipped: 0



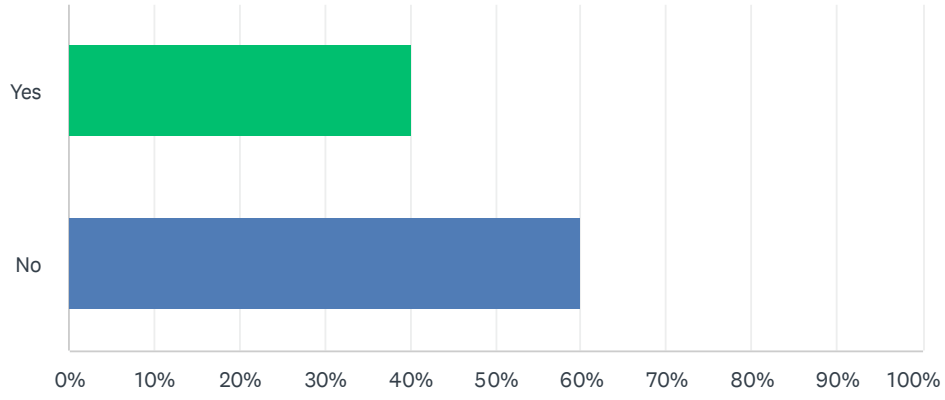

Flood
Levee Failure
Severe Thunderstorm (Hail, High...
Severe Winter Weather


Tornado
Wildfire
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Very Conce...
Somewhat ...
Neutral
Not Very C...
Not Concer...

	VERY CONCERNED	SOMEWHAT CONCERNED	NEUTRAL	NOT VERY CONCERNED	NOT CONCERNED	TOTAL
Dam Failure	0.00% 0	0.00% 0	20.00% 1	20.00% 1	60.00% 3	5
Drought	20.00% 1	80.00% 4	0.00% 0	0.00% 0	0.00% 0	5
Earthquake	0.00% 0	0.00% 0	20.00% 1	20.00% 1	60.00% 3	5
Extreme Temperatures	20.00% 1	60.00% 3	20.00% 1	0.00% 0	0.00% 0	5
Flood	0.00% 0	80.00% 4	0.00% 0	20.00% 1	0.00% 0	5
Levee Failure	0.00% 0	20.00% 1	20.00% 1	20.00% 1	40.00% 2	5
Severe Thunderstorm (Hail, High Winds, & Lightning)	40.00% 2	40.00% 2	0.00% 0	20.00% 1	0.00% 0	5
Severe Winter Weather	20.00% 1	80.00% 4	0.00% 0	0.00% 0	0.00% 0	5
Tornado	40.00% 2	40.00% 2	0.00% 0	20.00% 1	0.00% 0	5
Wildfire	0.00% 0	20.00% 1	20.00% 1	60.00% 3	0.00% 0	5

Q4 Have you ever received information about how to make members of your household and your home safer from natural disasters?

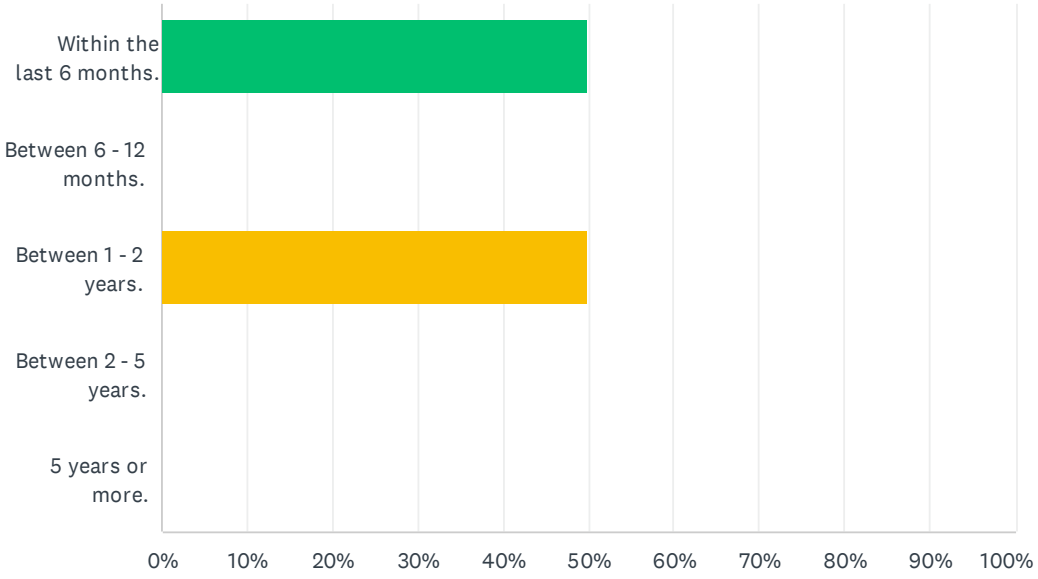
Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	40.00%	2
No	60.00%	3
TOTAL		5

Q5 If "Yes", how recently?

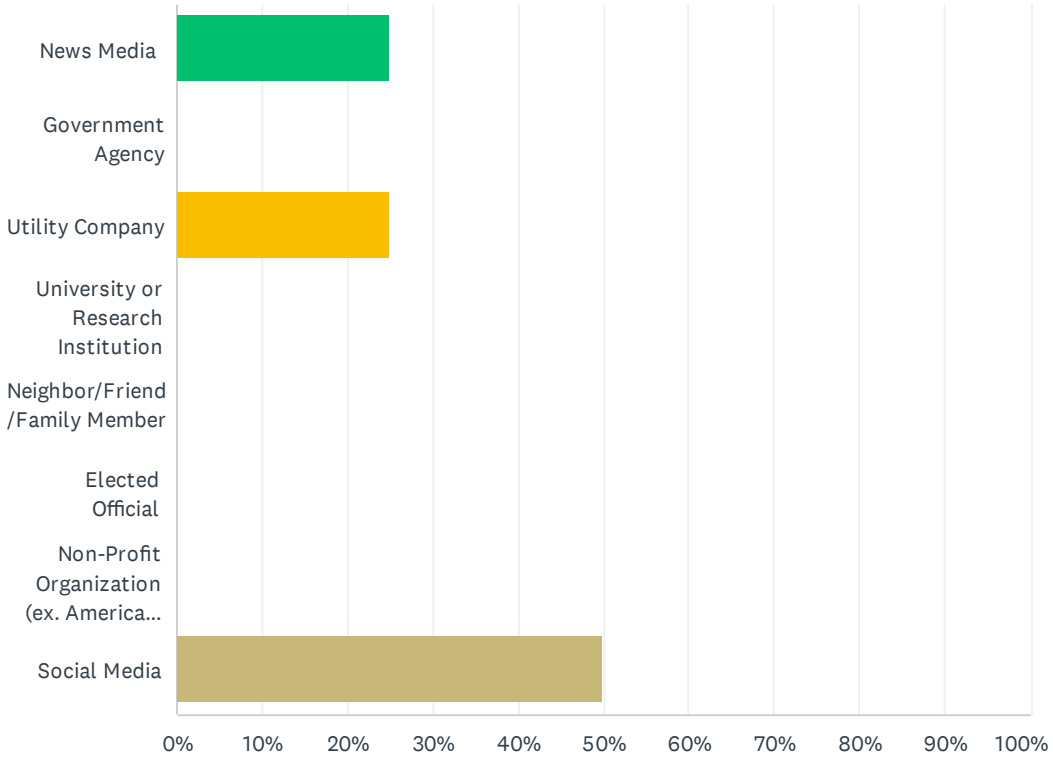
Answered: 2 Skipped: 3



ANSWER CHOICES	RESPONSES	
Within the last 6 months.	50.00%	1
Between 6 - 12 months.	0.00%	0
Between 1 - 2 years.	50.00%	1
Between 2 - 5 years.	0.00%	0
5 years or more.	0.00%	0
TOTAL		2

Q6 From whom did you last receive information about how to make members of your household and your home safer from natural disasters?

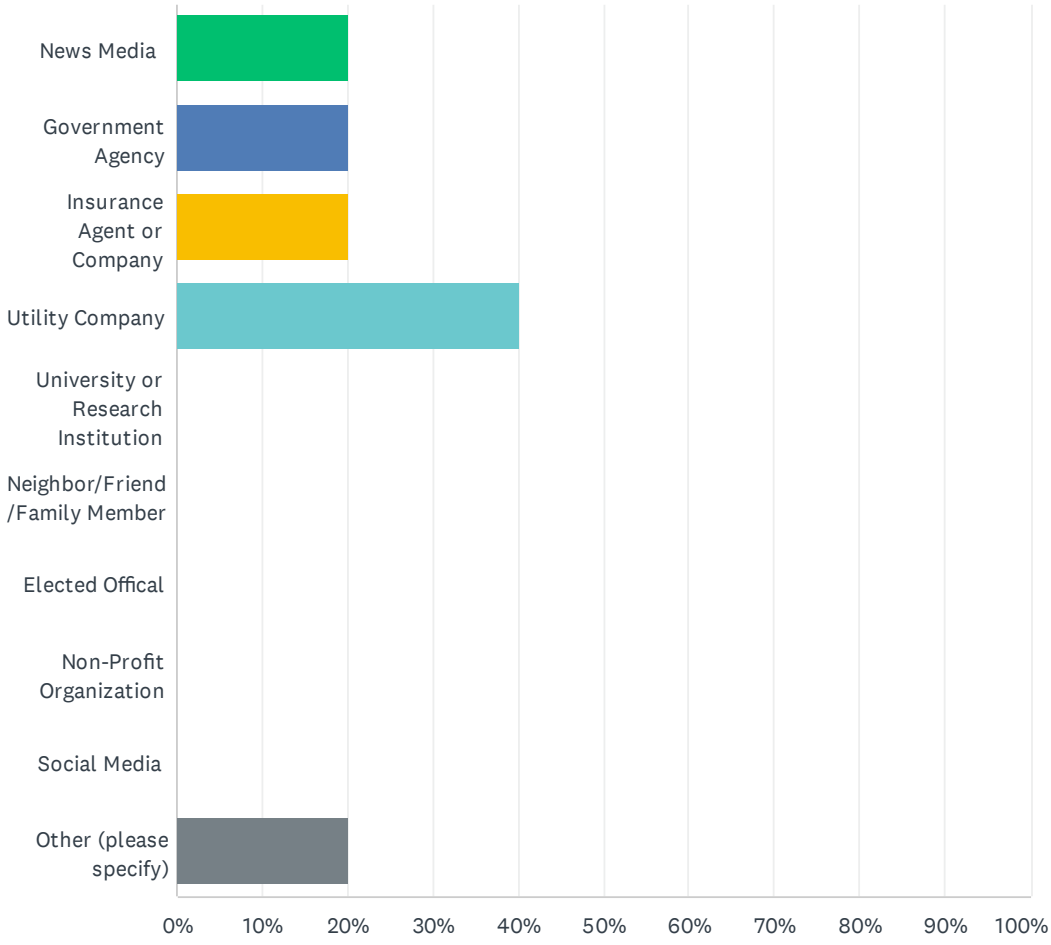
Answered: 4 Skipped: 1



ANSWER CHOICES	RESPONSES	
News Media	25.00%	1
Government Agency	0.00%	0
Utility Company	25.00%	1
University or Research Institution	0.00%	0
Neighbor/Friend/Family Member	0.00%	0
Elected Official	0.00%	0
Non-Profit Organization (ex. American Red Cross)	0.00%	0
Social Media	50.00%	2
TOTAL		4

Q7 Whom would you most trust to provide you with information about how to make your household and home safer from natural disasters?

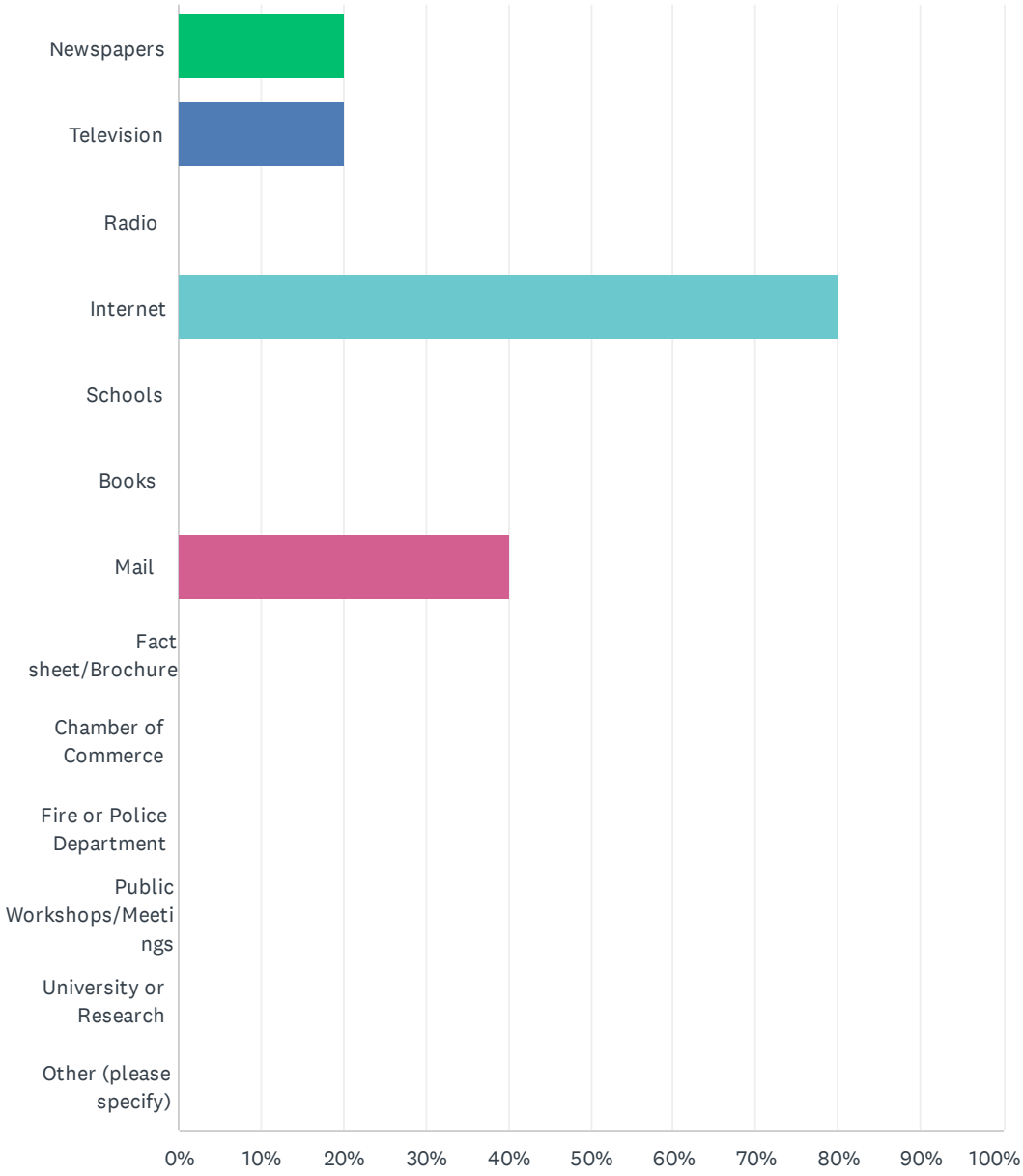
Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
News Media	20.00%	1
Government Agency	20.00%	1
Insurance Agent or Company	20.00%	1
Utility Company	40.00%	2
University or Research Institution	0.00%	0
Neighbor/Friend/Family Member	0.00%	0
Elected Offical	0.00%	0
Non-Profit Organization	0.00%	0
Social Media	0.00%	0
Other (please specify)	20.00%	1
Total Respondents: 5		

Q8 What is the most effective way for you to receive information about how to make your household and home safer from natural disasters?

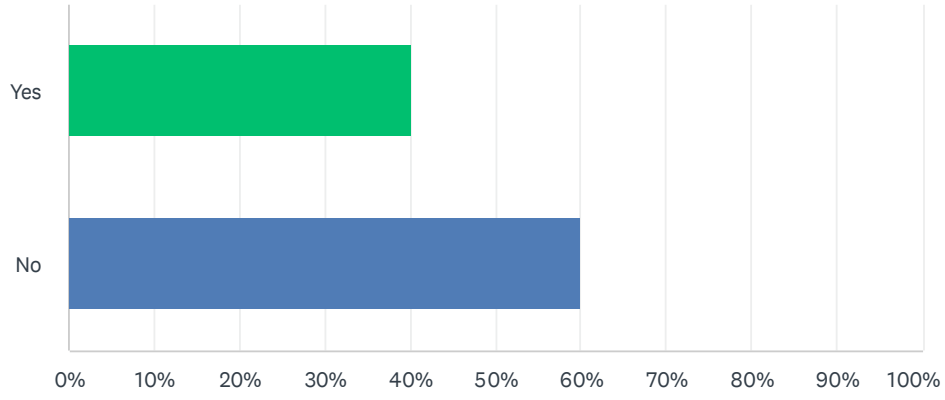
Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Newspapers	20.00%	1
Television	20.00%	1
Radio	0.00%	0
Internet	80.00%	4
Schools	0.00%	0
Books	0.00%	0
Mail	40.00%	2
Fact sheet/Brochure	0.00%	0
Chamber of Commerce	0.00%	0
Fire or Police Department	0.00%	0
Public Workshops/Meetings	0.00%	0
University or Research	0.00%	0
Other (please specify)	0.00%	0
Total Respondents: 5		

Q9 Prior to completing this survey, were you aware of your county's Hazard Mitigation Plan?

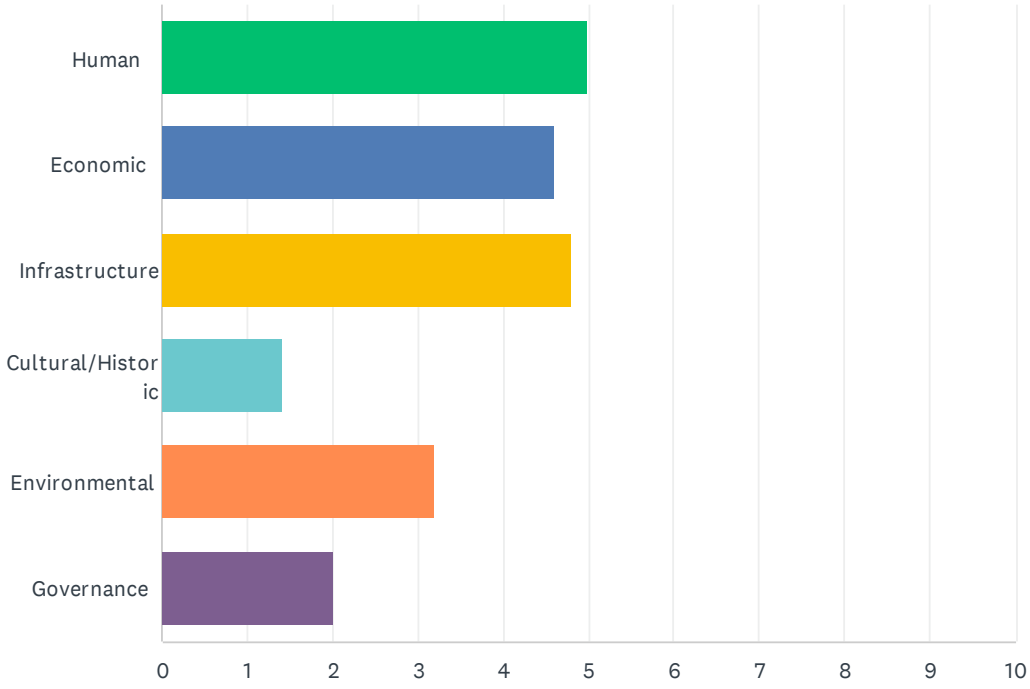
Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	40.00%	2
No	60.00%	3
TOTAL		5

Q10 Community assets are features, characteristics, or resources that either make a community unique or allow the community to function. Which of the following categories are most susceptible to the impacts caused by natural hazards in your community?

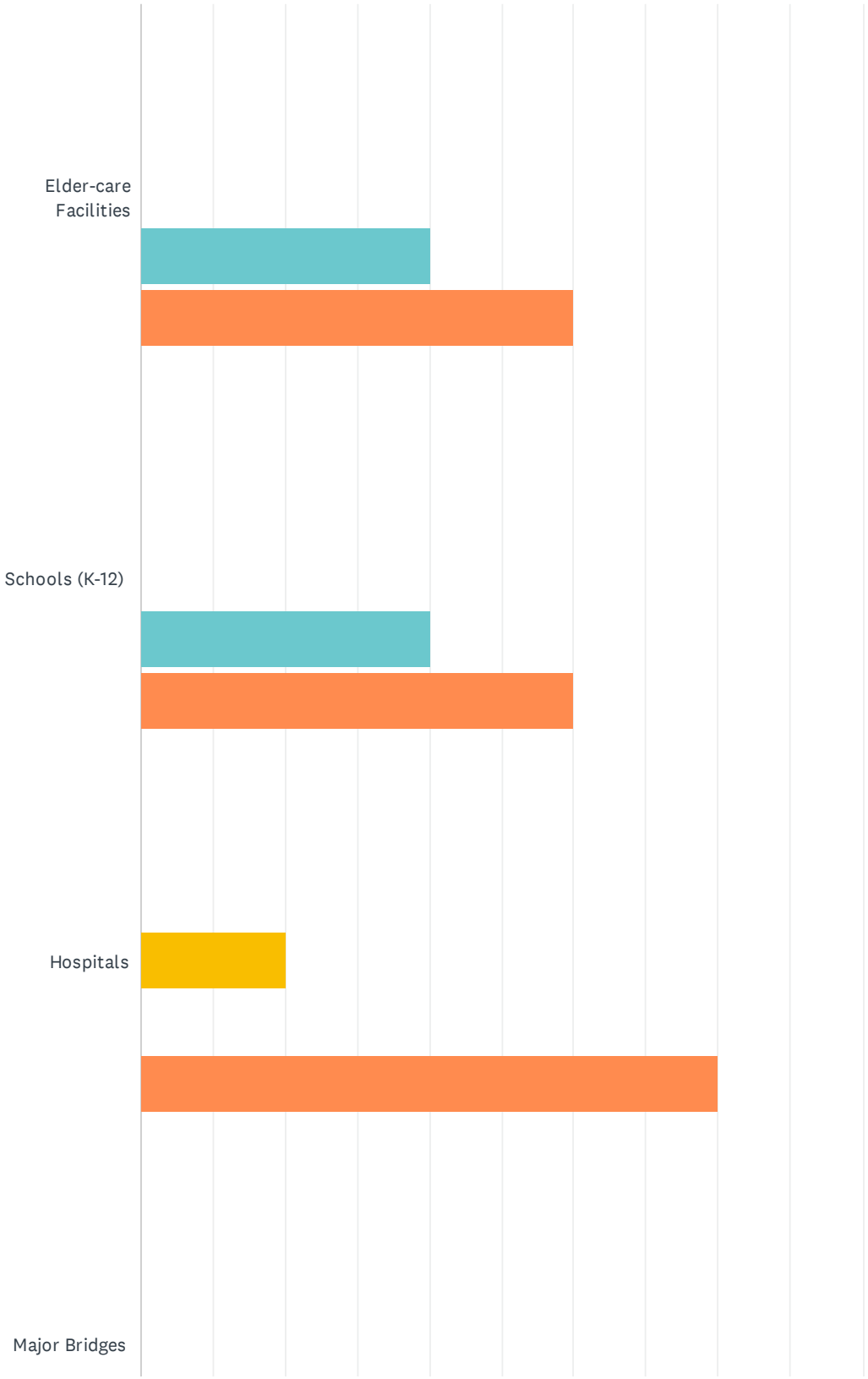
Answered: 5 Skipped: 0

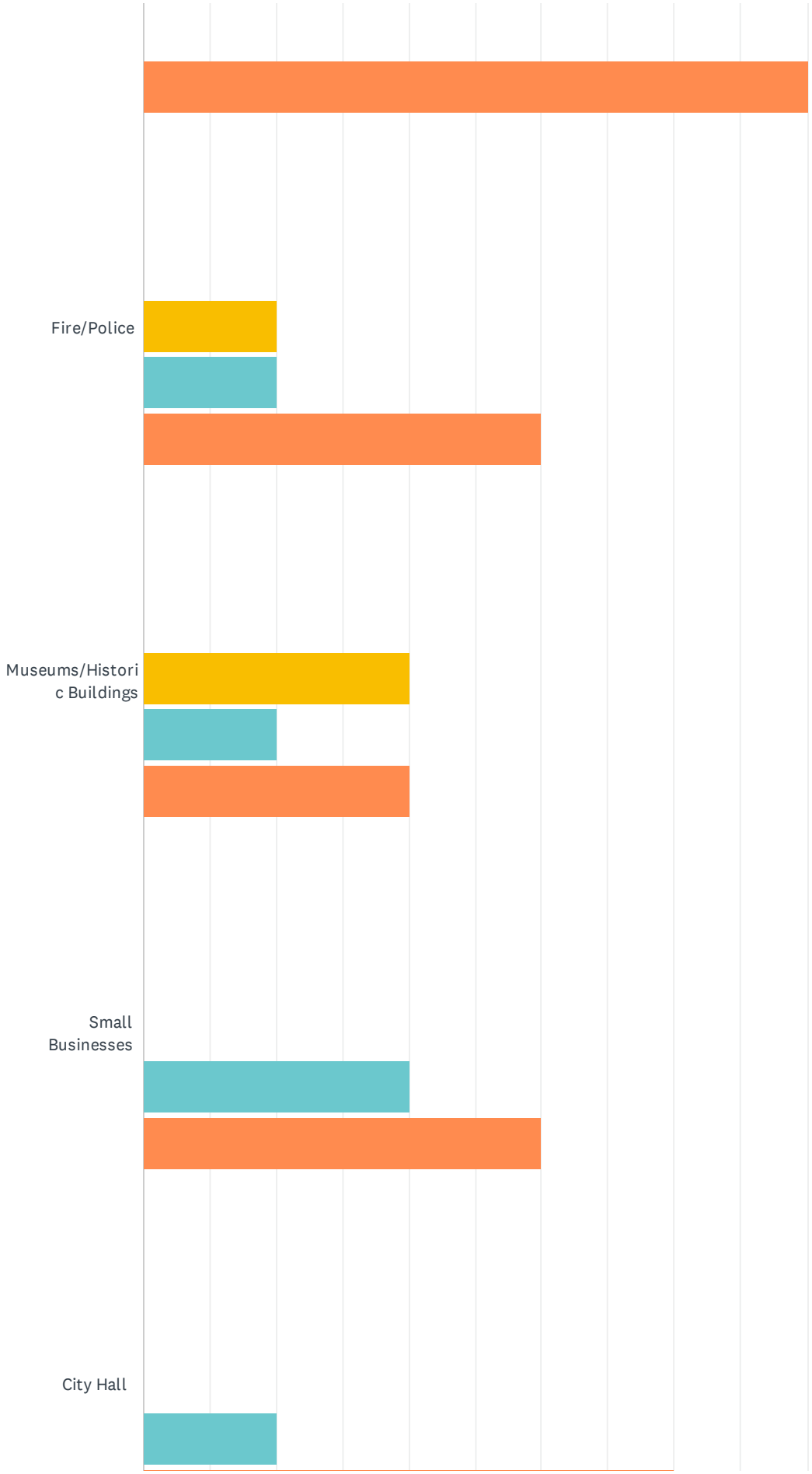


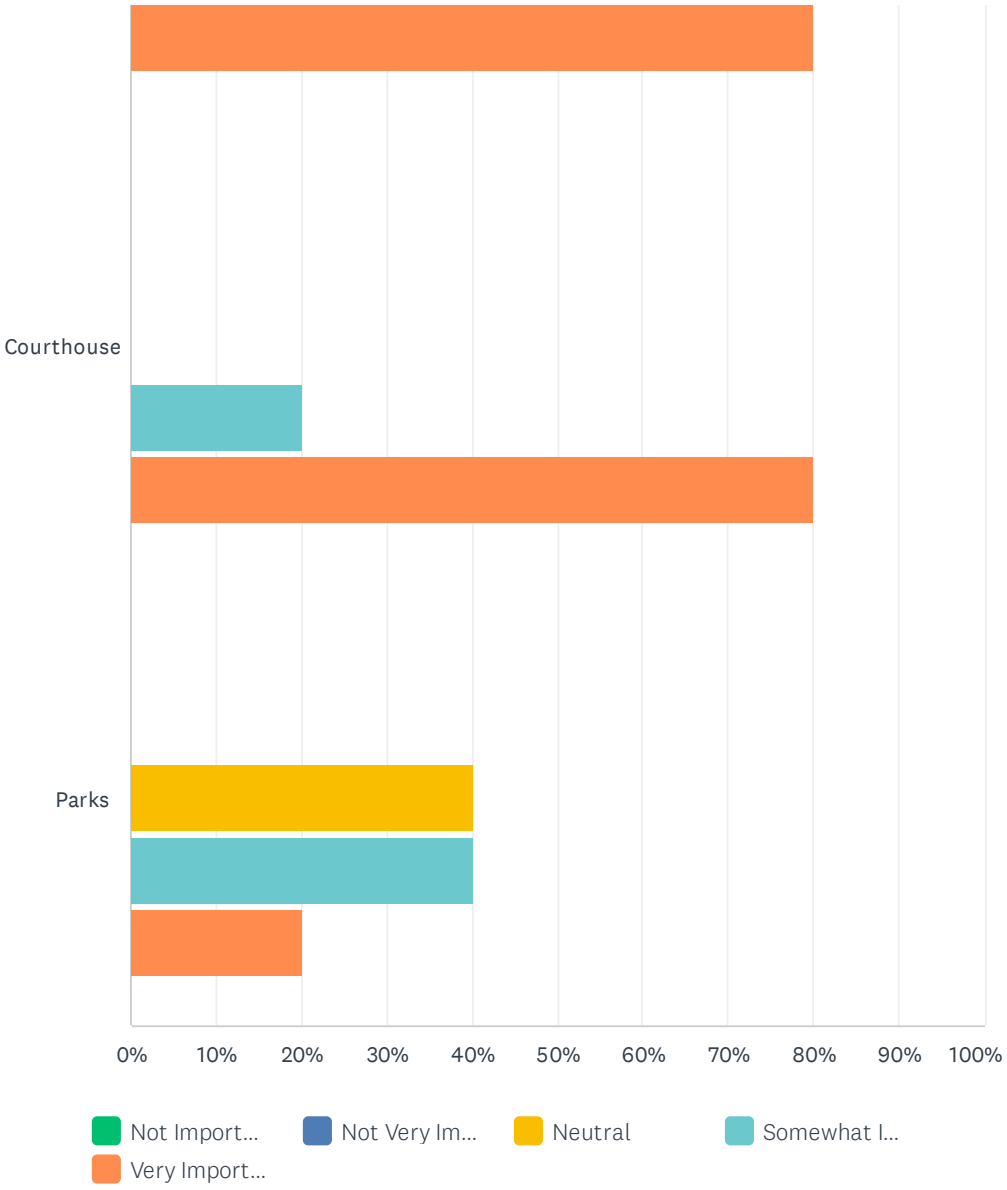
	1	2	3	4	5	6	TOTAL	SCORE
Human	60.00% 3	0.00% 0	20.00% 1	20.00% 1	0.00% 0	0.00% 0	5	5.00
Economic	0.00% 0	60.00% 3	40.00% 2	0.00% 0	0.00% 0	0.00% 0	5	4.60
Infrastructure	40.00% 2	20.00% 1	20.00% 1	20.00% 1	0.00% 0	0.00% 0	5	4.80
Cultural/Historic	0.00% 0	0.00% 0	0.00% 0	20.00% 1	0.00% 0	80.00% 4	5	1.40
Environmental	0.00% 0	20.00% 1	20.00% 1	20.00% 1	40.00% 2	0.00% 0	5	3.20
Governance	0.00% 0	0.00% 0	0.00% 0	20.00% 1	60.00% 3	20.00% 1	5	2.00

Q11 Next, we would like to know what specific types of community assets are most important to you.

Answered: 5 Skipped: 0



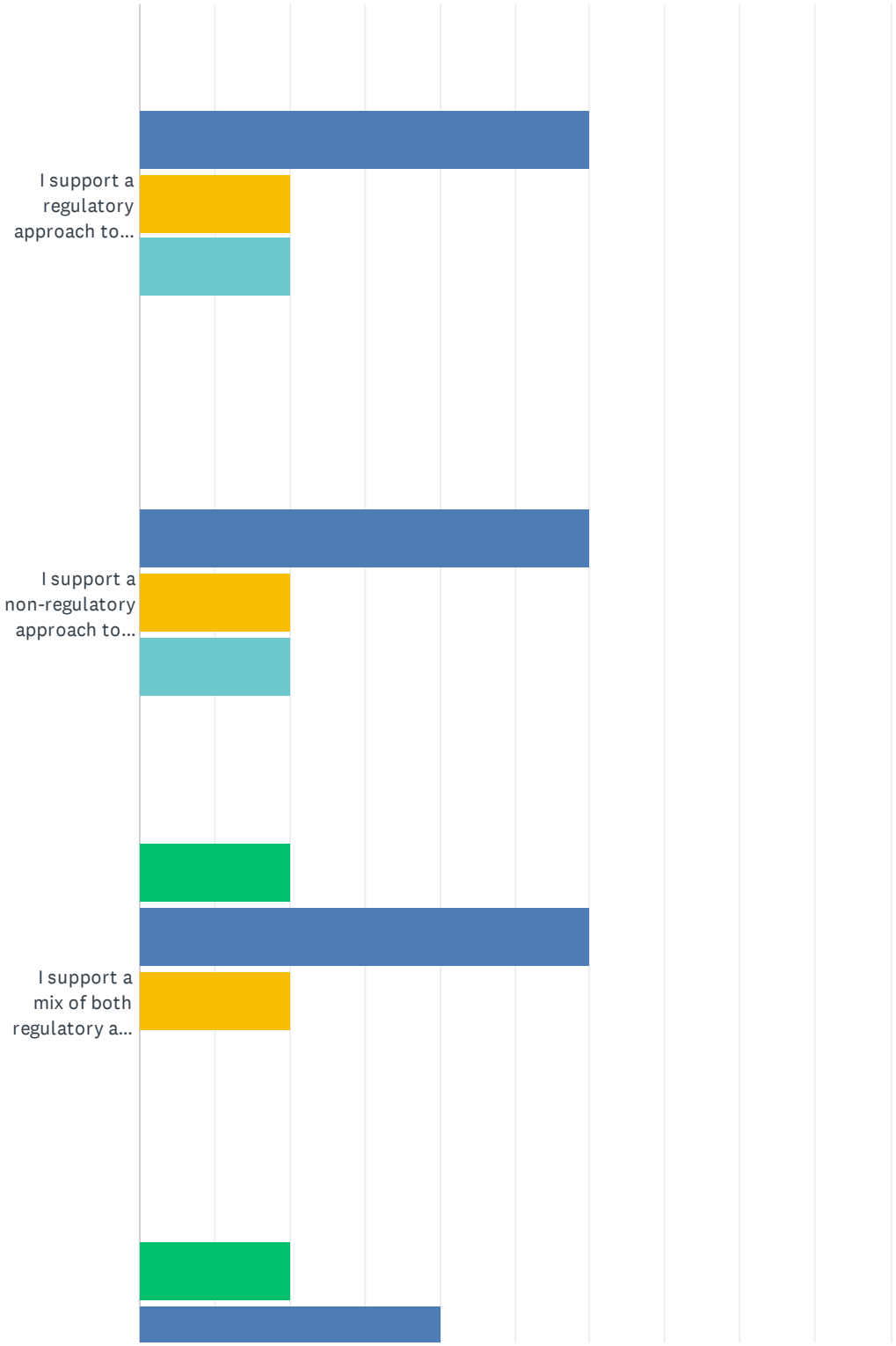

Fire/Police
Museums/Historic Buildings
Small Businesses
City Hall

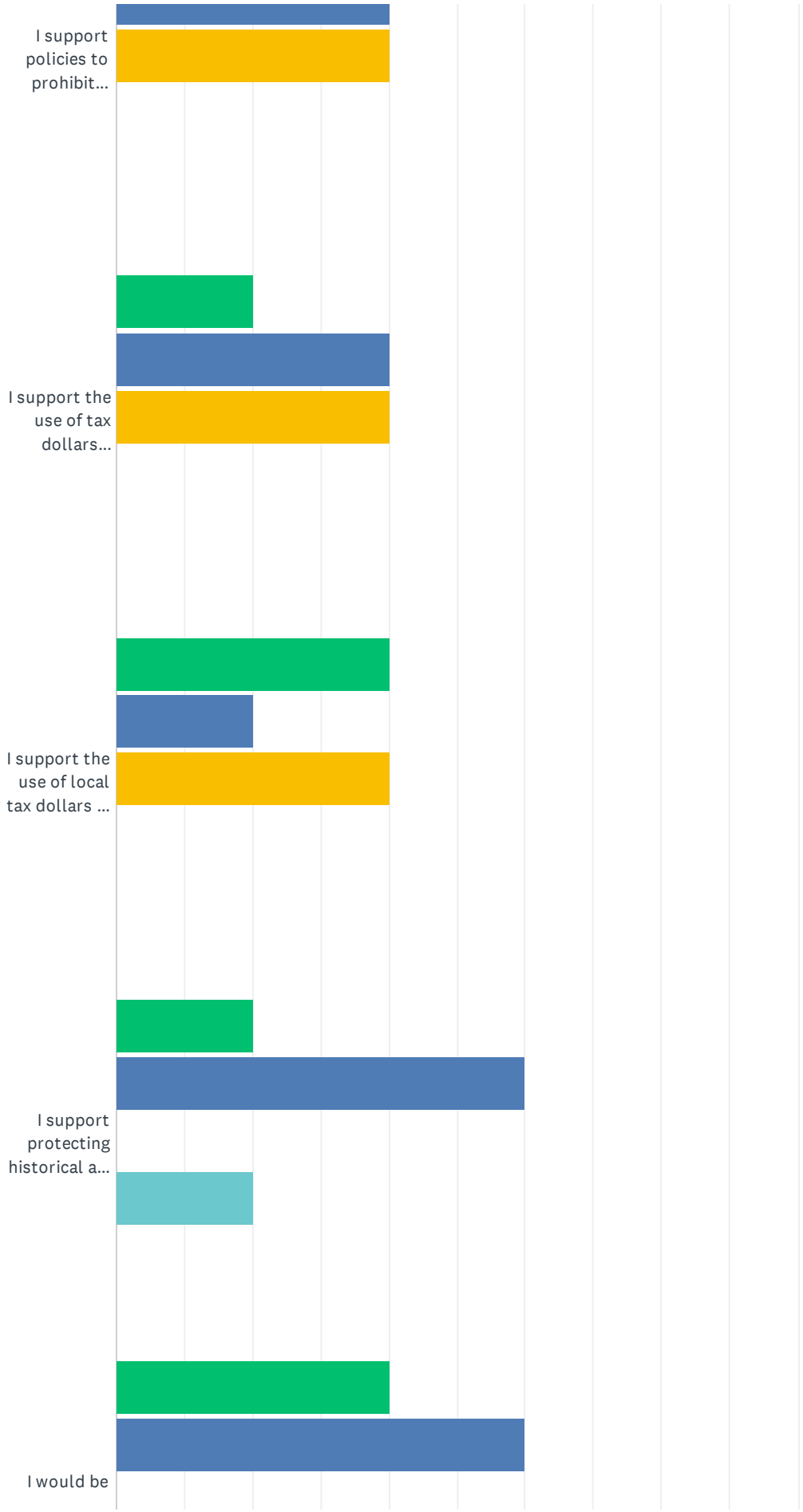

Courthouse
Parks
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Not Import...
Not Very Im...
Neutral
Somewhat I...
Very Import...

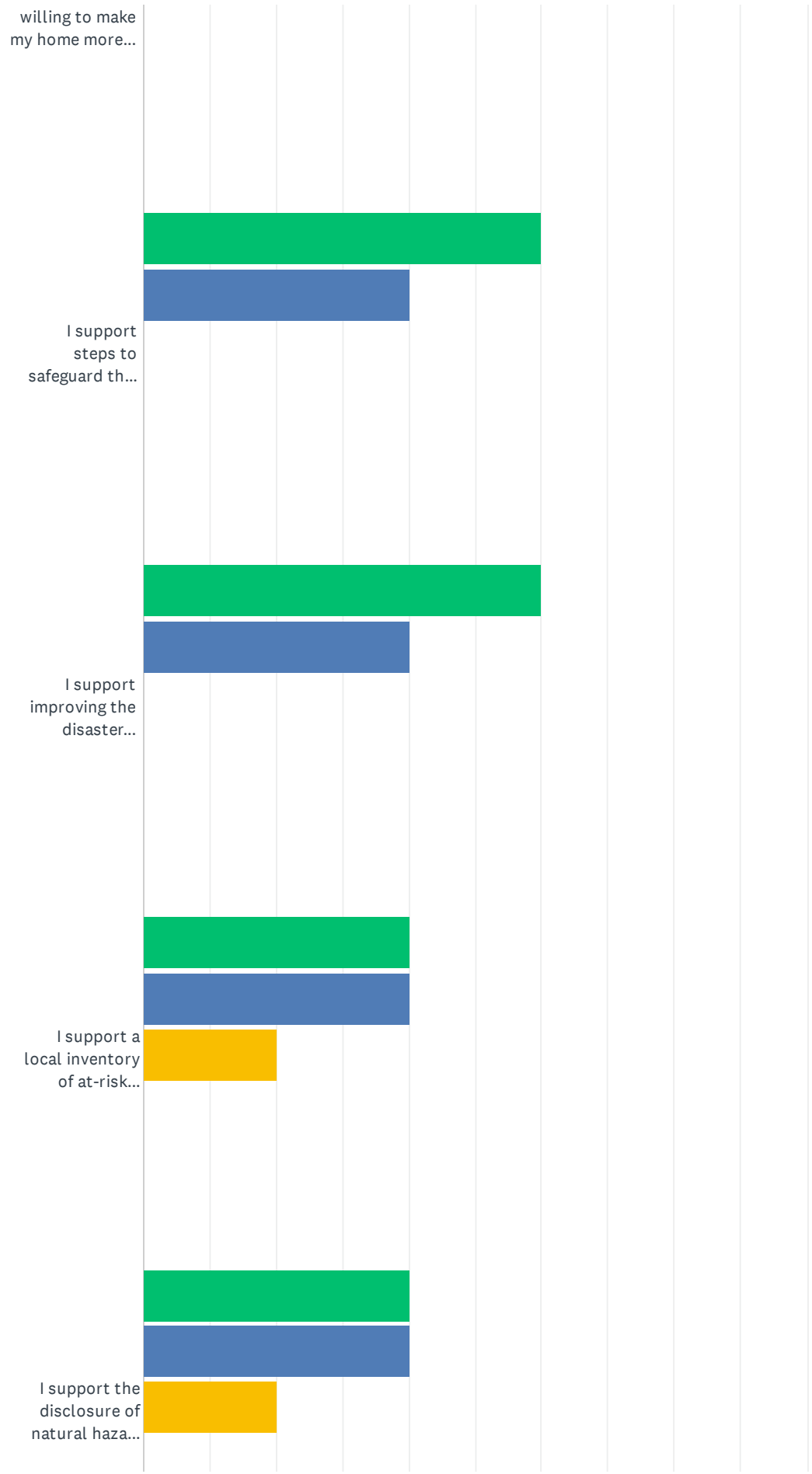
	NOT IMPORTANT	NOT VERY IMPORTANT	NEUTRAL	SOMEWHAT IMPORTANT	VERY IMPORTANT	TOTAL	WEIGHTED AVERAGE
Elder-care Facilities	0.00% 0	0.00% 0	0.00% 0	40.00% 2	60.00% 3	5	4.60
Schools (K-12)	0.00% 0	0.00% 0	0.00% 0	40.00% 2	60.00% 3	5	4.60
Hospitals	0.00% 0	0.00% 0	20.00% 1	0.00% 0	80.00% 4	5	4.60
Major Bridges	0.00% 0	0.00% 0	0.00% 0	0.00% 0	100.00% 5	5	5.00
Fire/Police	0.00% 0	0.00% 0	20.00% 1	20.00% 1	60.00% 3	5	4.40
Museums/Historic Buildings	0.00% 0	0.00% 0	40.00% 2	20.00% 1	40.00% 2	5	4.00
Small Businesses	0.00% 0	0.00% 0	0.00% 0	40.00% 2	60.00% 3	5	4.60
City Hall	0.00% 0	0.00% 0	0.00% 0	20.00% 1	80.00% 4	5	4.80
Courthouse	0.00% 0	0.00% 0	0.00% 0	20.00% 1	80.00% 4	5	4.80
Parks	0.00% 0	0.00% 0	40.00% 2	40.00% 2	20.00% 1	5	3.80

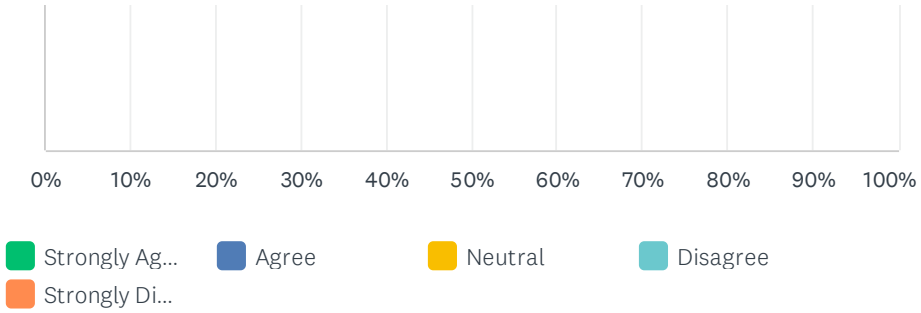
Q12 A number of activities can reduce your community's risk from natural hazards. These activities can be both regulatory and non-regulatory. Please check the box that best represents your opinion of the following strategies to reduce the risk and loss associated with natural disasters.

Answered: 5 Skipped: 0




I support policies to prohibit...
I support the use of tax dollars...
I support the use of local tax dollars ...
I support protecting historical a...
I would be

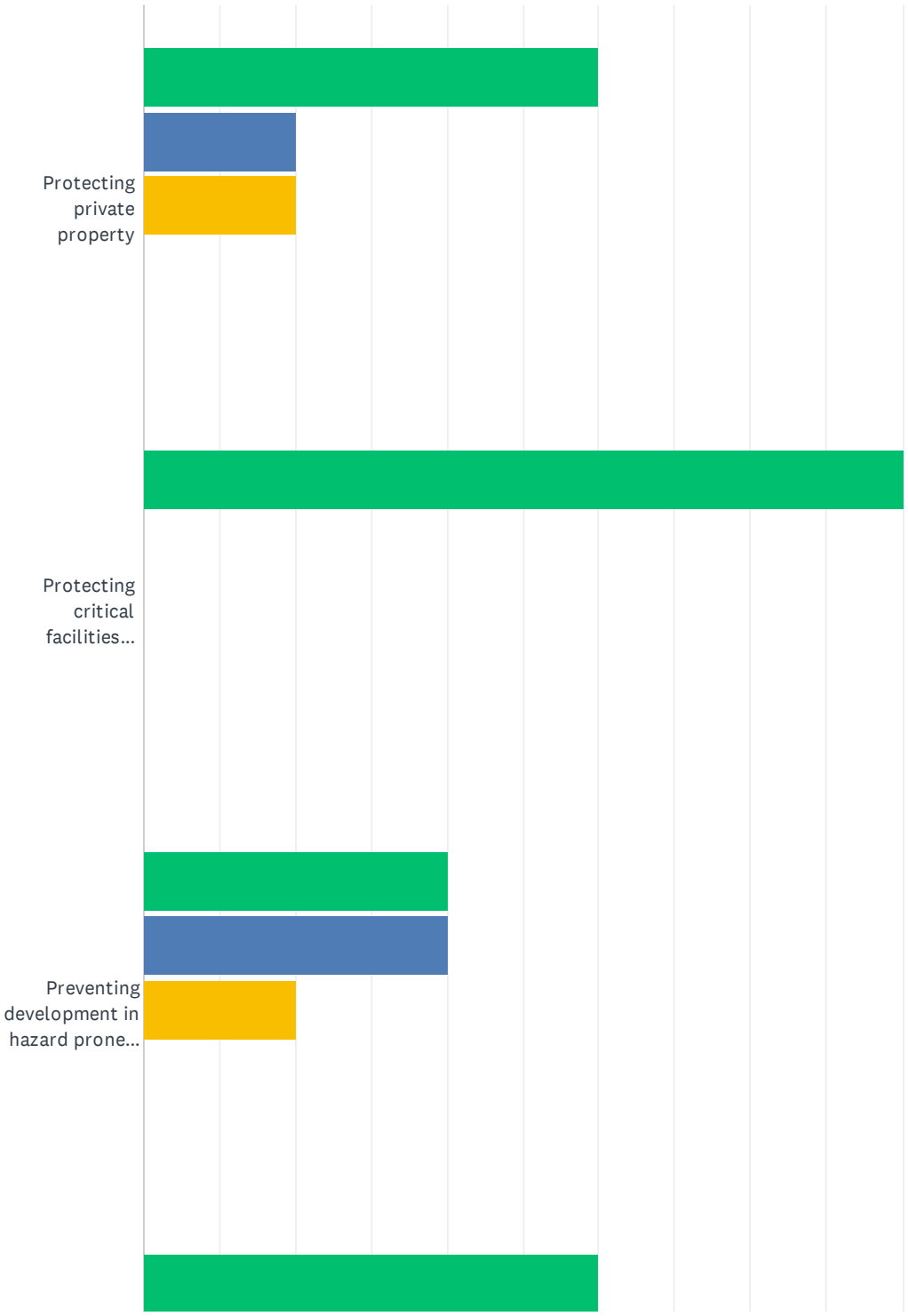

willing to make my home more...
I support steps to safeguard th...
I support improving the disaster...
I support a local inventory of at-risk...
I support the disclosure of natural haza...

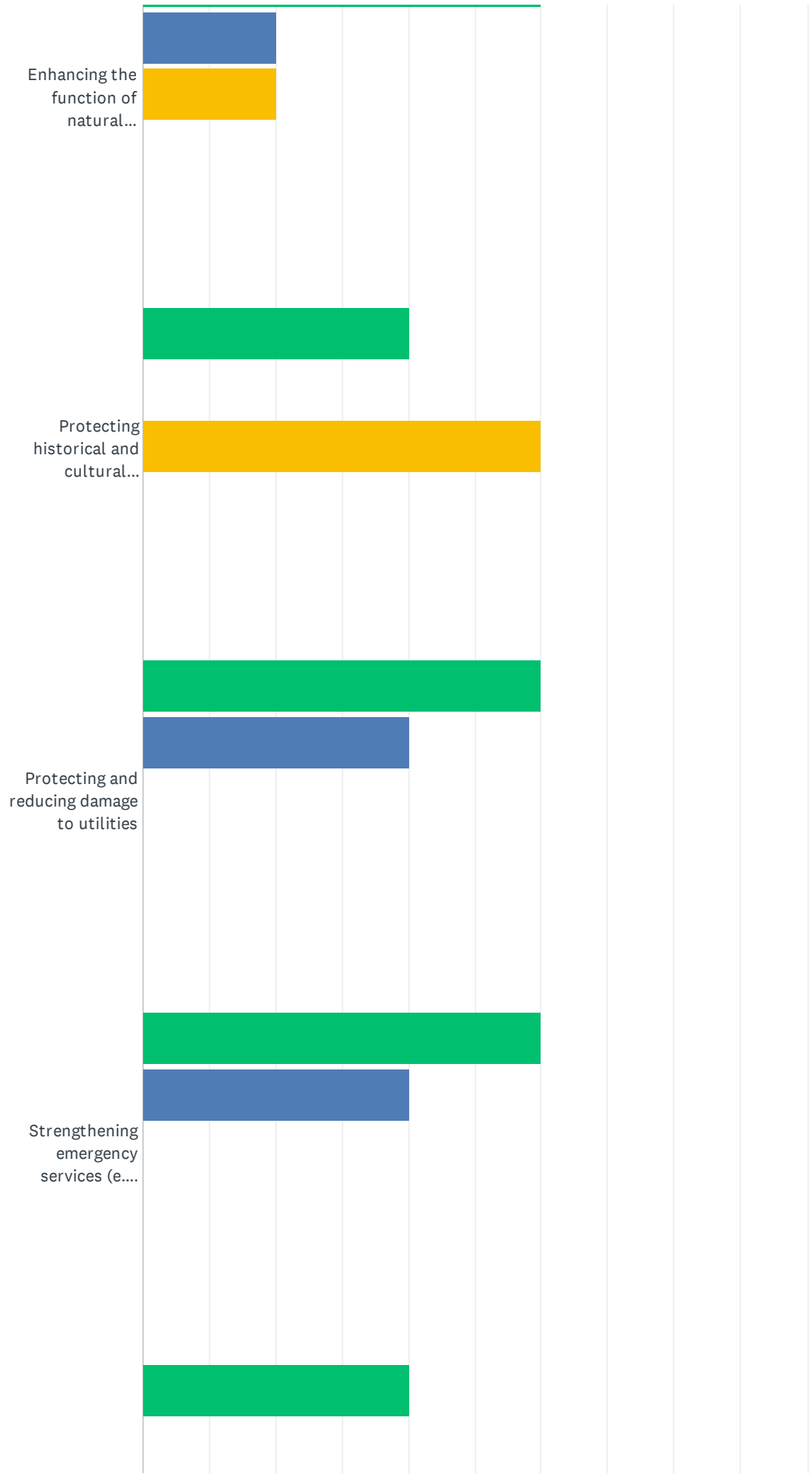


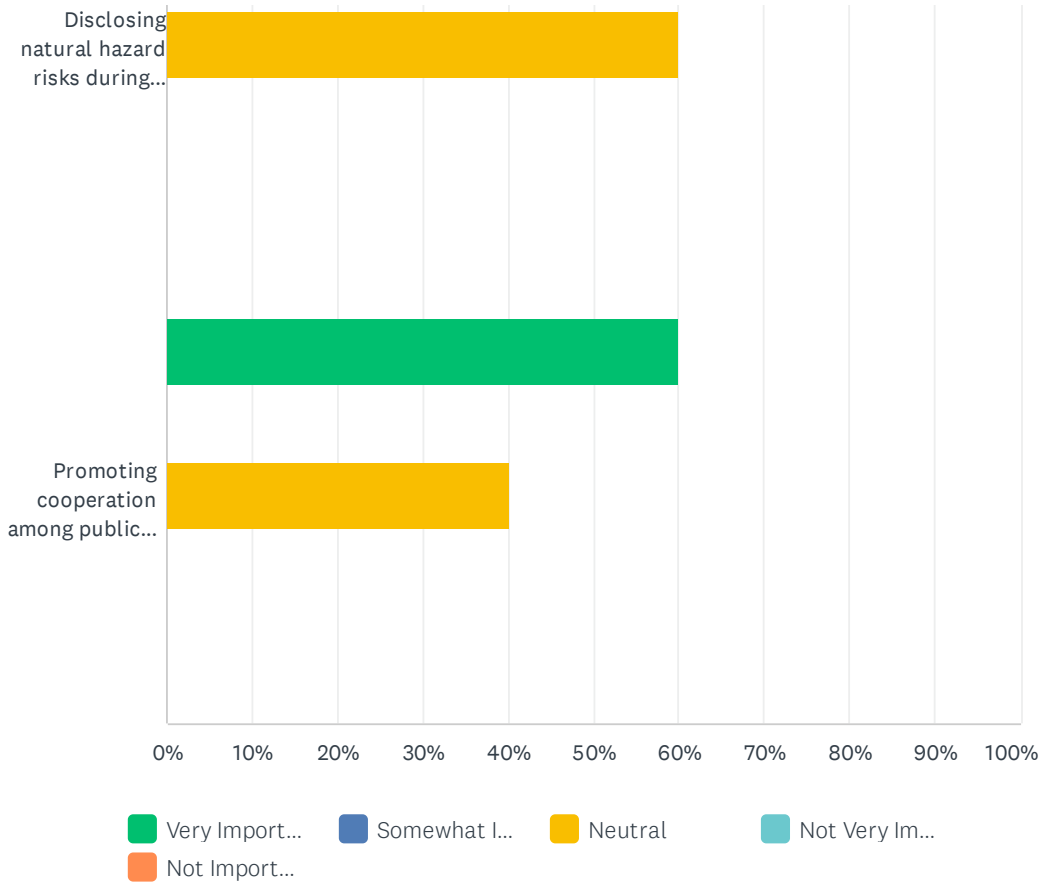
	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE	TOTAL	WEIGHTED AVERAGE
I support a regulatory approach to reducing risk	0.00% 0	60.00% 3	20.00% 1	20.00% 1	0.00% 0	5	2.60
I support a non-regulatory approach to reducing risk	0.00% 0	60.00% 3	20.00% 1	20.00% 1	0.00% 0	5	2.60
I support a mix of both regulatory and non-regulatory approaches to reducing risk	20.00% 1	60.00% 3	20.00% 1	0.00% 0	0.00% 0	5	2.00
I support policies to prohibit development in areas subject to natural hazards	20.00% 1	40.00% 2	40.00% 2	0.00% 0	0.00% 0	5	2.20
I support the use of tax dollars (federal and/or local) to compensate landowners for not developing in areas subject to natural hazards	20.00% 1	40.00% 2	40.00% 2	0.00% 0	0.00% 0	5	2.20
I support the use of local tax dollars to reduce risks and losses from natural disasters	40.00% 2	20.00% 1	40.00% 2	0.00% 0	0.00% 0	5	2.00
I support protecting historical and cultural structures	20.00% 1	60.00% 3	0.00% 0	20.00% 1	0.00% 0	5	2.20
I would be willing to make my home more disaster resilient	40.00% 2	60.00% 3	0.00% 0	0.00% 0	0.00% 0	5	1.60
I support steps to safeguard the local economy following a disaster event	60.00% 3	40.00% 2	0.00% 0	0.00% 0	0.00% 0	5	1.40
I support improving the disaster preparedness of local schools	60.00% 3	40.00% 2	0.00% 0	0.00% 0	0.00% 0	5	1.40
I support a local inventory of at-risk buildings and infrastructure	40.00% 2	40.00% 2	20.00% 1	0.00% 0	0.00% 0	5	1.80
I support the disclosure of natural hazard risks during real estate transactions	40.00% 2	40.00% 2	20.00% 1	0.00% 0	0.00% 0	5	1.80

Q13 Natural Hazards can have a significant impact on a community, but planning for these events can help lessen the impacts. The following statements will help determine citizen priorities regarding planning for natural hazards in your county. Please tell us how important each one is to you.

Answered: 5 Skipped: 0



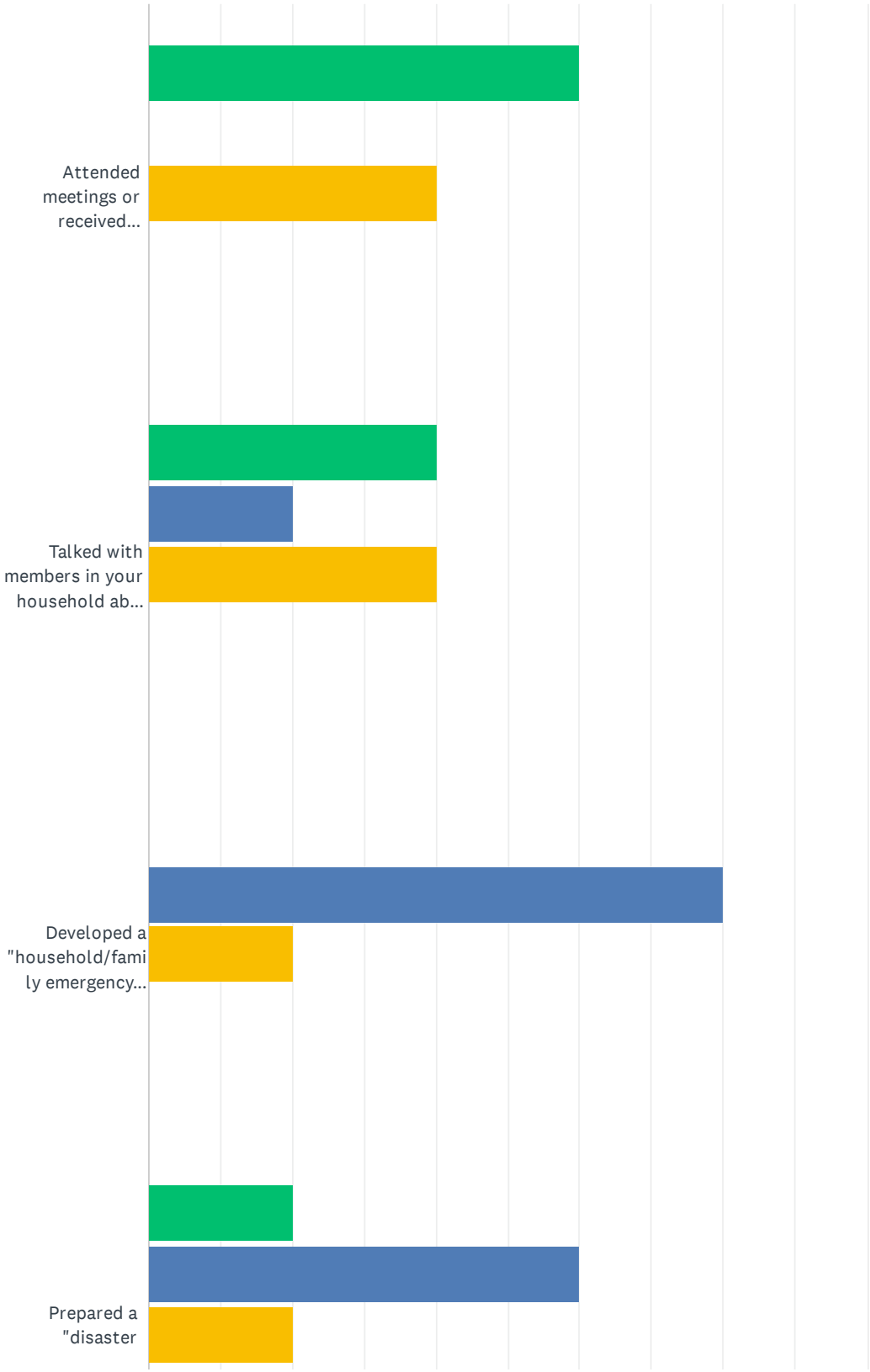

Enhancing the function of natural...
Protecting historical and cultural...
Protecting and reducing damage to utilities
Strengthening emergency services (e....

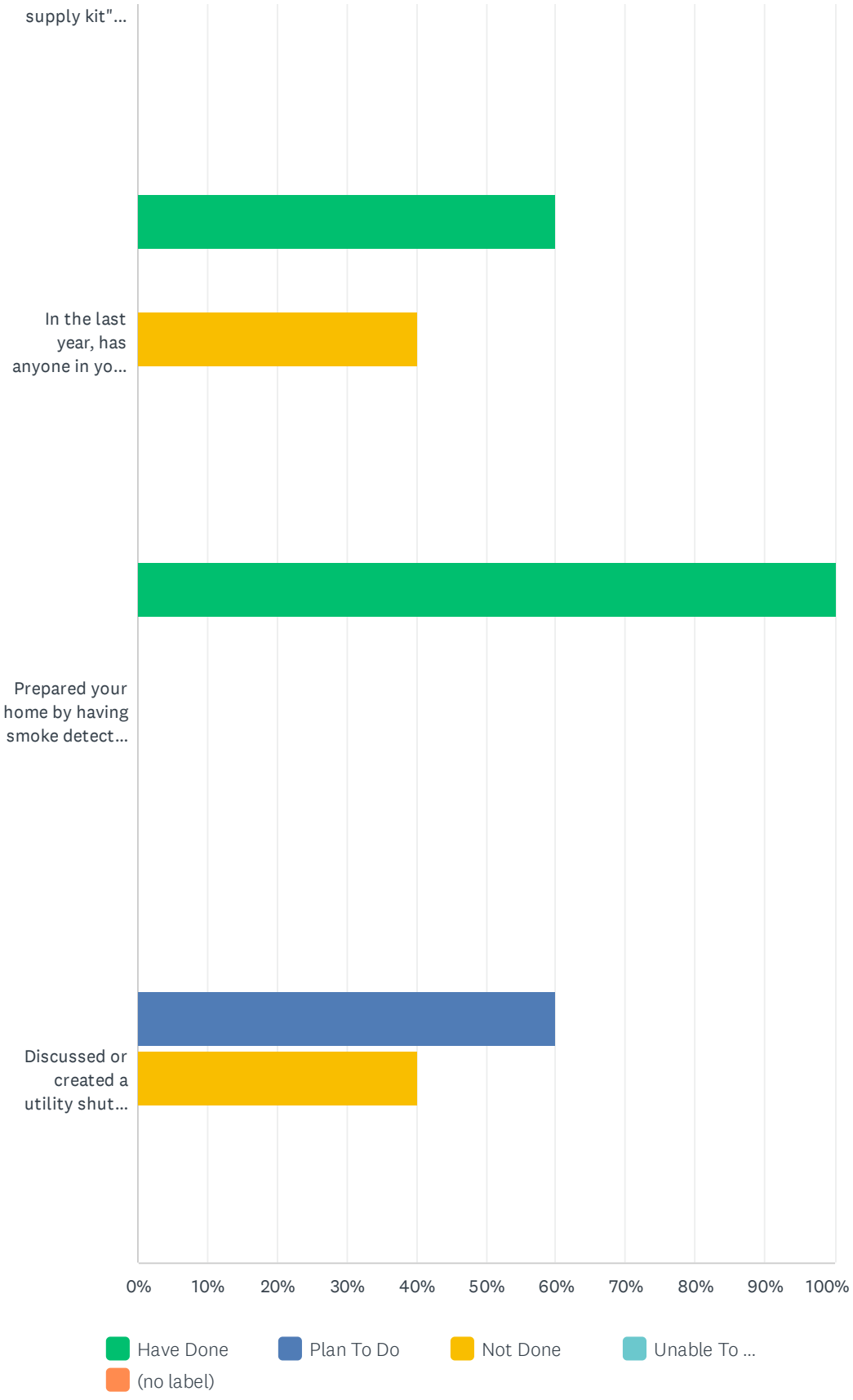


	VERY IMPORTANT	SOMEWHAT IMPORTANT	NEUTRAL	NOT VERY IMPORTANT	NOT IMPORTANT	TOTAL
Protecting private property	60.00% 3	20.00% 1	20.00% 1	0.00% 0	0.00% 0	5
Protecting critical facilities (transportation networks, hospitals, fire stations)	100.00% 5	0.00% 0	0.00% 0	0.00% 0	0.00% 0	5
Preventing development in hazard prone areas	40.00% 2	40.00% 2	20.00% 1	0.00% 0	0.00% 0	5
Enhancing the function of natural features (e.g. streams, wetlands)	60.00% 3	20.00% 1	20.00% 1	0.00% 0	0.00% 0	5
Protecting historical and cultural landmarks	40.00% 2	0.00% 0	60.00% 3	0.00% 0	0.00% 0	5
Protecting and reducing damage to utilities	60.00% 3	40.00% 2	0.00% 0	0.00% 0	0.00% 0	5
Strengthening emergency services (e.g. police, fire, ambulance)	60.00% 3	40.00% 2	0.00% 0	0.00% 0	0.00% 0	5
Disclosing natural hazard risks during real estate transactions	40.00% 2	0.00% 0	60.00% 3	0.00% 0	0.00% 0	5
Promoting cooperation among public agencies, citizens, non-profit organizations, and businesses	60.00% 3	0.00% 0	40.00% 2	0.00% 0	0.00% 0	5

Q14 In the following, please check those activities that you have done in your household, plan to do in the near future, or are unable to do.

Answered: 5 Skipped: 0

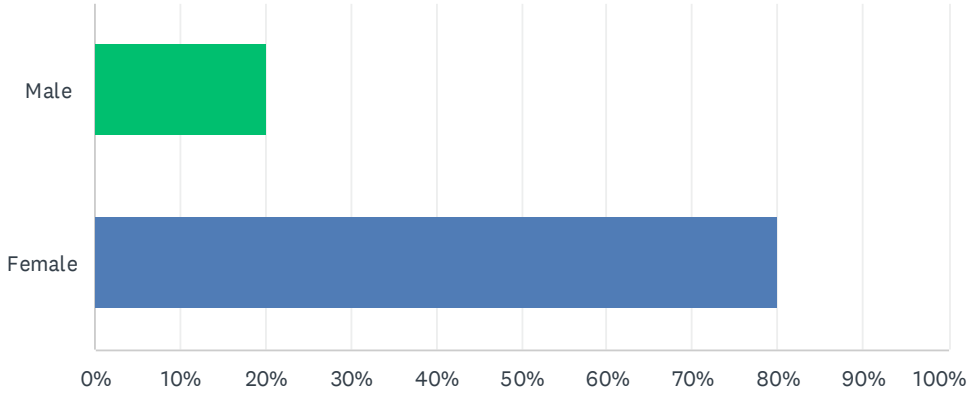



supply kit"...
In the last year, has anyone in yo...
Prepared your home by having smoke detect...
Discussed or created a utility shut...
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Have Done
Plan To Do
Not Done
Unable To ...
(no label)

	HAVE DONE	PLAN TO DO	NOT DONE	UNABLE TO DO	(NO LABEL)	TOTAL
Attended meetings or received written information on natural disasters or emergency preparedness	60.00% 3	0.00% 0	40.00% 2	0.00% 0	0.00% 0	5
Talked with members in your household about what to do in case of a natural disaster or emergency	40.00% 2	20.00% 1	40.00% 2	0.00% 0	0.00% 0	5
Developed a "household/family emergency plan" in order to decide what everyone would do in the event of a disaster	0.00% 0	80.00% 4	20.00% 1	0.00% 0	0.00% 0	5
Prepared a "disaster supply kit" (stored extra food, water, batteries, or other emergency supplies)	20.00% 1	60.00% 3	20.00% 1	0.00% 0	0.00% 0	5
In the last year, has anyone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)	60.00% 3	0.00% 0	40.00% 2	0.00% 0	0.00% 0	5
Prepared your home by having smoke detectors on each level of the house	100.00% 5	0.00% 0	0.00% 0	0.00% 0	0.00% 0	5
Discussed or created a utility shutoff procedure in the event of a natural disaster	0.00% 0	60.00% 3	40.00% 2	0.00% 0	0.00% 0	5

Q15 Gender?

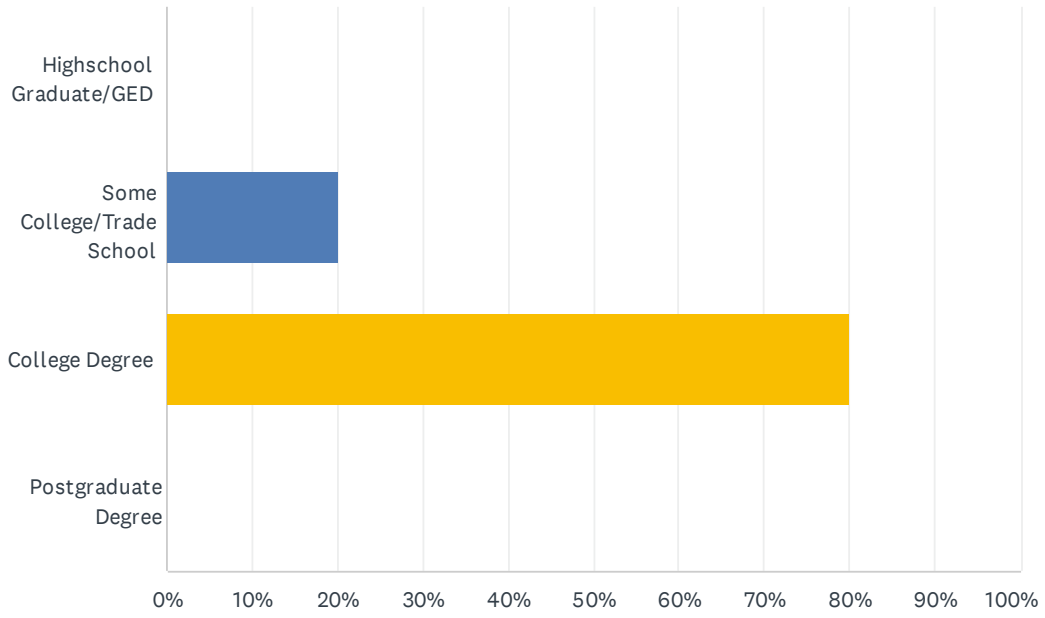
Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Male	20.00%	1
Female	80.00%	4
TOTAL		5

Q16 Please indicate your level of education.

Answered: 5 Skipped: 0



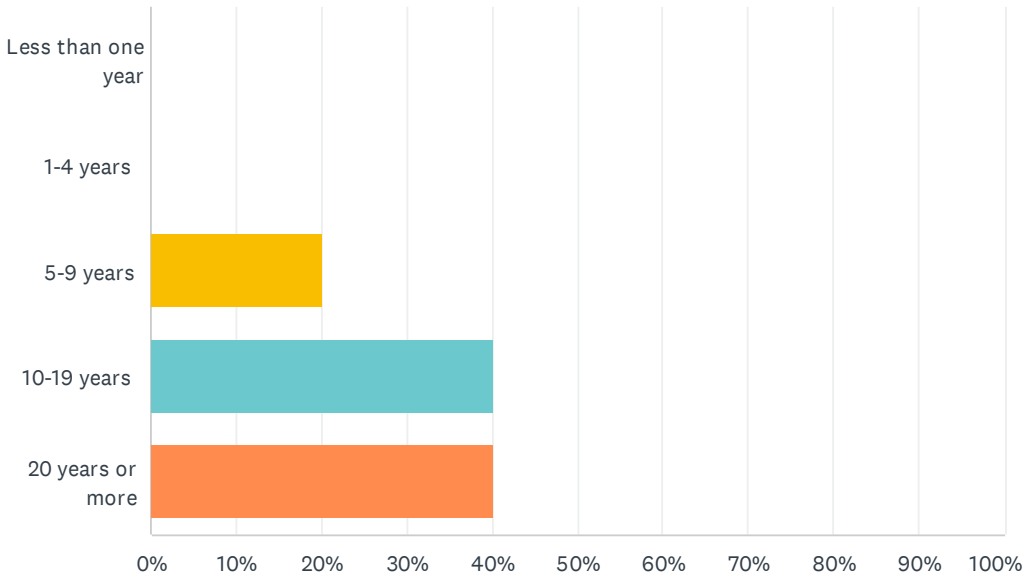
ANSWER CHOICES	RESPONSES	
Highschool Graduate/GED	0.00%	0
Some College/Trade School	20.00%	1
College Degree	80.00%	4
Postgraduate Degree	0.00%	0
TOTAL		5

Q17 Zip Code

Answered: 3 Skipped: 2

Q18 How long have you lived in Harrison County?

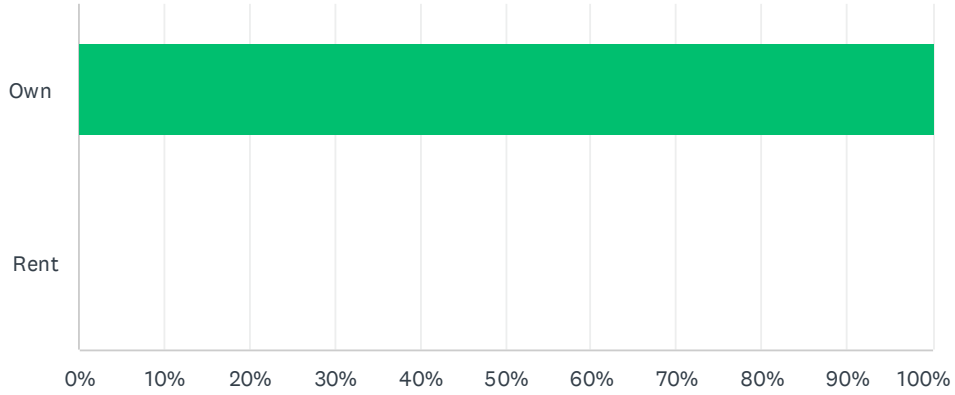
Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Less than one year	0.00%	0
1-4 years	0.00%	0
5-9 years	20.00%	1
10-19 years	40.00%	2
20 years or more	40.00%	2
TOTAL		5

Q19 Do you own or rent your home?

Answered: 5 Skipped: 0



ANSWER CHOICES	RESPONSES	
Own	100.00%	5
Rent	0.00%	0
TOTAL		5

Q20 Please feel free to provide any additional comments in the space provided.

Answered: 0 Skipped: 5

Appendix D: Critical Facilities (Redacted from Public View)

- 2020 Block Geography (US Census Bureau) & National Land Cover Dataset (MRLC)
- American Meteorological Society
- BC Ministry of Forests, Lands, and Natural Resource Operations
- County and local Comprehensive Plans to the extent available
- County Emergency Management
- County Flood Insurance Rate Map, FEMA
- Data Collection Questionnaires completed by each jurisdiction.
- Decennial Census
- DESE
- Department of Geography
- Encyclopedia Britannica, Inc.
- Environmental Protection Agency
- Federal Emergency Management Agency (FEMA)
- Flood Insurance Administration
- Flood Insurance Study, FEMA
- Hazards US (HAZUS)
- Iowa Department of Natural Resources
- Harrison County LEPC
- Missouri Department of Commerce & Insurance
- Missouri Department of Conservation
- Missouri Department of Health and Human Services; health.mo.gov
- Missouri Department of Natural Resources
- Missouri Department of Transportation
- Missouri Division of Fire Marshal Safety
- Missouri Hazard Mitigation Plans (2013, 2018, and 2023)
- Missouri Public Service Commission
- National Agricultural Statistics Service (Agriculture production/losses)
- National Centers for Environmental Information
- National Drought Mitigation Center Drought Reporter
- National Fire Incident Reporting System (NFIRS)
- National Inventory of Dams
- National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information (NCEI);
- National Weather Service
- NFIP Community Status Book
- Oxford Brooks University
- Previously approved Harrison County Hazard Mitigation Plan (2021)
- Purdue University
- SEMA
- SILVIS Lab, Department of Forest Ecology and Management, University of Wisconsin
- State of Missouri GIS data
- Tornado and Storm Research Organization (TORRO)
- United States Geological Survey (USGS)
- US Army Corps of Engineers
- US Bureau of the Census and Annual population estimates

- US Community Survey, 2023
- US Department of Agriculture's (USDA) Risk Management Agency Crop Insurance Statistics
- US Department of Transportation
- US Drought Monitor
- US Fish and Wildlife Service
- www.tornadochaser.net
- www.weather.gov

Appendix E: Resolutions of Adoption

Harrison County
Community Hospital

2600 Miller Street
Bethany, MO 64424
660.425.2211
hcchospital.org

RESOLUTION OF THE HARRISON COUNTY COMMUNITY HOSPITAL DISTRICT

A RESOLUTION OF THE HARRISON COUNTY COMMUNITY HOSPITAL DISTRICT ADOPTING THE Harrison County Multijurisdictional Hazard Mitigation Plan

WHEREAS the Harrison County Community Hospital District recognizes the threat that natural hazards pose to people and property within the Harrison County Community Hospital District; and

WHEREAS the Harrison County Community Hospital District has participated in the preparation of a multi-jurisdictional local hazard mitigation plan, hereby known as the ~~Daviess~~ Harrison County Multijurisdictional Hazard Mitigation Plan, hereafter referred to as the *Plan*, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the *Plan* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the *Harrison County Community Hospital District* from the impacts of future hazards and disasters; and

WHEREAS the *Harrison County Community Hospital District* recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the Harrison County Community Hospital District will endeavor to integrate the *Plan* into the comprehensive planning process; and

WHEREAS adoption by the Harrison County Community Hospital District demonstrates its commitment to hazard mitigation and achieving the goals outlined in the *Plan*.

NOW THEREFORE, BE IT RESOLVED BY THE *Harrison County Community Hospital District*, in the State of Missouri, THAT:

In accordance with Harrison County Community Hospital bylaws, the Harrison County Community Hospital District adopts the final *FEMA-approved Plan*.

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, this 24th day of November, 2025.

By (Sig): Glenn Dale Cox

Print name: Glenn Dale Cox, Chair

ATTEST:

By (Sig.): Linda Eivins

Print name: Linda Eivins, Secretary

APPROVED AS TO FORM:

By (Sig.): Tina Gillespie

Print name: Tina Gillespie, CEO

SOUTH HARRISON CO. R-II SCHOOL DISTRICT, Missouri RESOLUTION NO. _____

A RESOLUTION OF THE SOUTH HARRISON CO. R-II SCHOOL DSITRICT ADOPTING THE HARRISON COUNTY Multijurisdictional Hazard Mitigation Plan

WHEREAS the South Harrison Co. R-II School District recognizes the threat that natural hazards pose to people and property within the South Harrison Co. R-II School District; and

WHEREAS the South Harrison Co. R-II School District has participated in the preparation of a multi-jurisdictional local hazard mitigation plan, hereby known as the Harrison County Multijurisdictional Hazard Mitigation Plan, hereafter referred to as the *Plan*, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the *Plan* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the South Harrison Co. R-II School District from the impacts of future hazards and disasters; and

WHEREAS the South Harrison Co. R-II School District recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the South Harrison Co. R-II School District will endeavor to integrate the *Plan* into the comprehensive planning process; and

WHEREAS adoption by the South Harrison Co. R-II School District demonstrates their commitment to hazard mitigation and achieving the goals outlined in the *Plan*.

NOW THEREFORE, BE IT RESOLVED BY THE SOUTH HARRISON CO. R-II SCHOOL DISTRICT, in the State of Missouri, THAT:

In accordance with South Harrison Co. R-II School District Board Policy BF, the South Harrison Co. R-II School District adopts the final *FEMA-approved Plan*.

ADOPTED by a vote of 7 in favor and 0 against, and 0 abstaining, this 8 day of Dec, 2025.

By (Sig): _____
Print name: Nick Fitzgerald
President of the Board of Education

ATTEST:

By (Sig.): _____
Print name: Michael Spurling
Secretary of the Board of Education

APPROVED AS TO FORM:

By (Sig.): _____
Print name: _____

City of Ridgeway, Missouri RESOLUTION NO._____

A RESOLUTION OF THE City of Ridgeway ADOPTING THE Harrison County Multi-jurisdictional Hazard Mitigation Plan

WHEREAS the City of Ridgeway recognizes the threat that natural hazards pose to people and property within the City of Ridgeway and

WHEREAS the City of Ridgeway has participated in the preparation of a Multi-jurisdictional local hazard mitigation plan, hereby known as the Harrison County Multi-jurisdictional Hazard Mitigation Plan, hereafter referred to as the *Plan*, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the *Plan* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the *City of Ridgeway* from the impacts of future hazards and disasters; and

WHEREAS the City of Ridgeway recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the City of Ridgway will endeavor to integrate the *Plan* into the comprehensive planning process; and

WHEREAS adoption by the City of Ridgeway demonstrates their commitment to hazard mitigation and achieving the goals outlined in the *Plan.*

NOW THEREFORE, BE IT RESOLVED BY THE CITY OF RIDGEWAY, in the State of Missouri, THAT:

Passed by the board of alderman and approved by the Mayor, the City of Ridgeway adopts the final *FEMA-approved Plan* on this 2nd day of December 2025

By (Sig): Jesse Hale Mayor
Print name: Jesse Hale Mayor

ATTEST:
By (Sig.): Toni Gorman. City Clerk.
Print name: Toni Gorman. City Clerk

Resolution 2025-12-09 – Hazard Mitigation

A RESOLUTION OF THE CITY OF NEW HAMPTON ADOPTING THE Harrison County Multijurisdictional Hazard Mitigation Plan

WHEREAS the City of New Hampton recognizes the threat that natural hazards pose to people and property within the City of New Hampton; and

WHEREAS the City of New Hampton has participated in the preparation of a multi-jurisdictional local hazard mitigation plan, hereby known as the Harrison County Multijurisdictional Hazard Mitigation Plan, hereafter referred to the *Plan*, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the *Plan* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of New Hampton from the impacts of future hazards and disasters; and

WHEREAS the City of New Hampton recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the City of New Hampton will endeavor to integrate the *Plan* into the comprehensive planning process; and

WHEREAS adoption by the City of New Hampton demonstrates their commitment to hazard mitigation and achieving the goals outlined in the *Plan.*

NOW THEREFORE, BE IT RESOLVED BY THE CITY OF NEW HAMPTON, in the State of Missouri, THAT:

The City of New Hampton adopts the final *FEMA-APPROVED Plan.*

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, this 9th day of December, 2025.

By (Sig): _____

Lorrie Langfitt, Mayor

ATTEST:

By (Sig): _____

Cassandra Baker, City Clerk

City Seal

APPROVED AS TO FORM:

By (Sig): _____

Lorrie Langfitt, Mayor

RESOLUTION

THE CITY OF GILMAN CITY, HARRISON COUNTY, Missouri RESOLUTION NO. 674

A RESOLUTION OF THE CITY OF GILMAN CITY ADOPTING THE HARRISON COUNTY HAZARD MITIGATION PLAN

WHEREAS, the City of Gilman City recognizes the threat that natural hazards pose to the people and property within Harrison County; and

WHEREAS, the City of Gilman City has participated in the preparation of a multi-jurisdictional local hazard mitigation plan, hereby known as the County Hazard Mitigation Plan hereafter referred to as the *Plan*, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, the *Plan* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Gilman City from the impacts of future hazards and disasters; and

WHEREAS, the City of Gilman City recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the City of Gilman City will endeavor to integrate the *Plan* into the comprehensive planning process; and

WHEREAS, adoption by the City of Gilman City demonstrates its' commitment to hazard mitigation and achieving the goals outlined in the *Plan*.

NOW THEREFORE, BE IT RESOLVED BY THE CITY OF GILMAN CITY IN HARRISON COUNTY, in the state of Missouri, THAT:

In accordance with (local rule for adopting resolutions), the City of Gilman City adopts the final FEMA-approved *Plan*.

ADOPTED by a vote of 4 in favor and 0 against, and 0 abstaining, this 9 day of December 2025.

By (Sig): Toni Woodring

Print name: Toni Woodring

ATTEST: By (Sig): Lesa Petrov City Clerk

Print name: Lesa Petrov City Clerk

APPROVED AS TO FORM:

By(Sig): Toni Woodring

Print name: Toni Woodring

City of Cainsville, Missouri RESOLUTION NO. 04-2025

A RESOLUTION OF THE *City of Cainsville* ADOPTING THE Harrison Multijurisdictional Hazard Mitigation Plan

WHEREAS the City of Cainsville recognizes the threat that natural hazards pose to people and property within the (local governing body/school district); and

WHEREAS the City of Cainsville has participated in the preparation of a multi-jurisdictional local hazard mitigation plan, hereby known as the Harrison County Multijurisdictional Hazard Mitigation Plan, hereafter referred to as the *Plan*, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the *Plan* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the *City of Cainsville* from the impacts of future hazards and disasters; and

WHEREAS the Cainsville City Council recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the City of Cainsville will endeavor to integrate the *Plan* into the comprehensive planning process; and

WHEREAS adoption by the Cainsville City Council demonstrates their commitment to hazard mitigation and achieving the goals outlined in the *Plan*.

NOW THEREFORE, BE IT RESOLVED BY THE City of Cainsville in the State of Missouri, THAT:

In accordance with Missouri State Statue, the City of Cainsville adopts the final *FEMA-approved Plan*.

ADOPTED by a vote of 4 in favor and 0 against, and 0 abstaining, this 4th day of December 2025.

By (Sig): _____
Print name: Thomas A Brown

ATTEST:

By (Sig.): _____
Print name: Rebecca L Dewkins

APPROVED AS TO FORM:

By (Sig.): _____
Print name: _____

RESOLUTION NO. 2025-04

A RESOLUTION OF THE CITY OF BETHANY, MISSOURI ADOPTING THE HARRISON COUNTY Multijurisdictional Hazard Mitigation Plan

WHEREAS the City of Bethany recognizes the threat that natural hazards pose to people and property within the (local governing body/school district); and

WHEREAS the City of Bethany has participated in the preparation of a multi-jurisdictional local hazard mitigation plan, hereby known as the Linn County Multijurisdictional Hazard Mitigation Plan, hereafter referred to as the *Plan*, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the *Plan* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Bethany from the impacts of future hazards and disasters; and

WHEREAS the City of Bethany recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the City of Bethany) will endeavor to integrate the *Plan* into the comprehensive planning process; and

WHEREAS adoption by the City of Bethany demonstrates their commitment to hazard mitigation and achieving the goals outlined in the *Plan*.

NOW THEREFORE, BE IT RESOLVED BY THE City of Bethany in the State of Missouri, **THAT**:

In accordance with RSMo. Section 79.110, the City of Bethany adopts the final *FEMA-approved Plan.*

ADOPTED by a vote of All in favor and None against, and None abstaining, this 15 day of December 2025.

Mayor: _____

ATTEST:

City Administrator: _____

APPROVED AS TO FORM:

City Clerk: _____

County of Harrison, Missouri RESOLUTION NO. 2025-02

A RESOLUTION OF THE COUNTY OF HARRISON ADOPTING THE HARRISON COUNTY Multijurisdictional Hazard Mitigation Plan

WHEREAS the County of Harrison recognizes the threat that natural hazards pose to people and property within the (local governing body/school district); and

WHEREAS the County of Harrison has participated in the preparation of a multi-jurisdictional local hazard mitigation plan, hereby known as the Linn County Multijurisdictional Hazard Mitigation Plan, hereafter referred to as the *Plan*, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the *Plan* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the County of Harrison from the impacts of future hazards and disasters; and

WHEREAS the County of Harrison recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the County of Harrison will endeavor to integrate the *Plan* into the comprehensive planning process; and

WHEREAS adoption by the County of Harrison demonstrates their commitment to hazard mitigation and achieving the goals outlined in the *Plan*.

NOW THEREFORE, BE IT RESOLVED BY THE COUNTY OF HARRISON, in the State of Missouri, THAT:

In accordance with County of Harrison, the County of Harrison adopts the final *FEMA-approved Plan*.

ADOPTED by a vote of 3 in favor and 0 against, and 0 abstaining, this 10th day of December, 2025.

By (Sig): Jack W. Hodge
Print name: Jack W. Hodge

ATTEST:

By (Sig.): Lee Ann Miles
Print name: Lee Ann Miles

COUNTY COURT OF HARRISON CO. MISSOURI

APPROVED AS TO FORM:

By (Sig.): _____
Print name:
_____

VILLAGE OF EAGLEVILLE, Eagleville, Missouri RESOLUTION NO. 121215

A RESOLUTION OF THE VILLAGE OF EAGLEVILLE ADOPTING THE HARRISON COUNTY Multijurisdictional Hazard Mitigation Plan

WHEREAS the Village of Eagleville recognizes the threat that natural hazards pose to people and property within the (local governing body/school district); and

WHEREAS the Village of Eagleville has participated in the preparation of a multi-jurisdictional local hazard mitigation plan, hereby known as the Harrison County Multijurisdictional HazardMitigation Plan, hereafter referred to as the *Plan*, in accordance with the Disaster

Mitigation Act of 2000; and
WHEREAS the *Plan* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the *Village of Eagleville* from the impacts of future hazards and disasters; and

WHEREAS the Village of Eagleville recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the Village of Eagleville will endeavor to integrate the *Plan* into the comprehensive planning process; and

WHEREAS adoption by the Village of Eagleville demonstrates their commitment to hazard mitigation and achieving the goals outlined in the *Plan*.

NOW THEREFORE, BE IT RESOLVED BY THE VILLAGE OF EAGLEVILLE, in the State of Missouri, THAT:

In accordance with (*local rule for adopting resolutions*), the Village of Eagleville adopts the final *FEMA-approved Plan*.

ADOPTED by a vote of 4 in favor and 0 against, and 0 abstaining, this 12 day of Dec, 2025

By (Sig): Seth Lane
Print name: Seth Lane Chairman

ATTEST:

By (Sig.): Teresa Parsons
Print name: Teresa Parsons City Clerk

APPROVED AS TO FORM:

By (Sig.): Teresa Parsons
Print name: Teresa Parsons

Ridgeway R-V School District, Missouri RESOLUTION NO. 1

A RESOLUTION OF THE Ridgeway R-V School District ADOPTING THE Harrison County's Multijurisdictional Hazard Mitigation Plan

WHEREAS the Ridgeway R-V School District recognizes the threat that natural hazards pose to people and property within the Ridgeway R-V School District; and

WHEREAS the Ridgeway R-V School District has participated in the preparation of a multi-jurisdictional local hazard mitigation plan, hereby known as the Harrison County Multijurisdictional Hazard Mitigation Plan, hereafter referred to as the *Plan*, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the *Plan* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the *Ridgeway R-V School District* from the impacts of future hazards and disasters; and

WHEREAS the Ridgeway R-V School District recognizes that land use policies have a major impact on whether people and property are exposed to natural hazards, the Ridgeway R-V School District will endeavor to integrate the *Plan* into the comprehensive planning process; and

WHEREAS adoption by the Ridgeway R-V School District demonstrates their commitment to hazard mitigation and achieving the goals outlined in the *Plan*.

NOW THEREFORE, BE IT RESOLVED BY THE Ridgeway R-V School District, in the State of Missouri, THAT:

In accordance with Ridgeway R-V School District's policies, the Ridgeway R-V School District adopts the final *FEMA-approved Plan*.

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, this 14 day of January, 2026.

By (Sig): _____
Print name: Miles McGovney
Board President

ATTEST:

By (Sig.): Sydney Craig
Print name:
Board Vice President

APPROVED AS TO FORM:

By (Sig.): _____
Print name:

_____