City Commission Meeting

December 17, 2024 at 5:30 PM

118 W Central Ave, Arkansas City, KS

Please join our meeting https://global.gotomeeting.com/join/355580797
Or dial in using your phone: United States: +1 (408) 650-3123 Access Code: 355 580 797

I. Routine Business

1. Roll Call
2. Opening Prayer and Pledge of Allegiance
3. Additions or Deletions ***(Voice Vote)***
4. Approval of the Agenda ***(Voice Vote)***

II. Recognition of Visitors/Staff

1. Recognition of Captain Jason Legleiter for completing the Law Enforcement Leadership Academy (LELA) Command School.

2. Recognize three City of Arkansas City employees, Tony Tapia, Travis Stroud and Curtis Tauscher, for achieving milestone years of service with the Leage of Kansas Municipalities (LKM).

III. Consent Agenda (Voice Vote)

Note: All matters listed below on the Consent Agenda are considered under one motion and enacted by one motion. There should be no separate discussion. If such discussion is desired, any item may be removed from the Consent Agenda and then considered separately under Section VI: New Business.

1. Approve December 3, 2024, regular meeting minutes as written.

2. Ratify Mayor Jay Warren's re-appointment of Brad Bryant to the South Central Kansas Medical Center (SCKMC) Board of Trustees.

IV. New Business

City Manager Department

1. A Resolution adopting the 2024 Kansas Region G Hazard Mitigation Plan. ***(Voice Vote)***

V. City Manager Reminders & Updates

VI. Items for Discussion by City Commissioners

VII. Comments from the Audience for Items not on the Agenda

The public will be allowed to speak on issues or items that are not scheduled for discussion on the agenda. Individuals should address all comments and questions to the Commission. Comments should be limited to issues and items relevant to the business of the Governing Body. The Commission will not discuss or debate these items, nor will the Commission make decisions on items presented during this time. Each person will be limited to five (5) minutes.

VIII. Financial Summary

1. November 2024 Financial Summary

IX. Adjournment

City Commission Agenda Item

Meeting Date: December 17th, 2024

From: Jim Holloway, Chief of Police

Item: LELA Command School – Legleiter

Purpose: Recognition of Captain Jason Legleiter for completing the Law Enforcement Leadership Academy (LELA) Command School.

Background:

Captain Legleiter has been attending classes throughout 2024 in Lawrence, Kansas. Captain Legleiter completed the training and graduated on December 5th, 2024.

Fiscal Impact:

Amount: 00.00

Fund: Department: Expense Code:

☐ Included in budget ☐ Grant ☐ Bonds ☐ Other Not Budgeted

Approved for Agenda by:

Randy Frazer, City Manager


SERVE & PROTECT
POLICE
KANSAS
ARKANSAS CITY
SERVE & PROTECT
POLICE
KANSAS
The University of Kansas
Center for Public Safety Leadership
Jason Legleiter
Law Enforcement Leadership Academy
Command School

City Commission Agenda Item

Meeting Date: December 17, 2024

From: Randy Frazer, City Manager

Item: LKM Service Award Recognitions

Purpose: Recognize three City of Arkansas City employees, Tony Tapia, Travis Stroud and Curtis Tauscher, for achieving milestone years of service with the Leage of Kansas Municipalities (LKM).

Background:

At the League of Kansas Municipalities October convention, employees from across Kansas are honored for reaching milestone years of service. This year, three employees from the City of Arkansas City were recognized for their dedication and received a gift card to choose a gift in celebration of their service. The employees recognized this year are:

- Tony Tapia, Public Services Superintendent – 25 years of service (Aug. 9, 1999)
- Travis Stroud, Arkansas City Police Department Lieutenant – 20 years of service (Sept. 30, 2003)
- Curtis Tauscher, Street and Stormwater Maintenance Worker III – 15 years of service (Oct. 13, 2008)

Fiscal Impact:

Amount: None.

Fund: Department: Expense Code:

☐ Included in budget ☐ Grant ☐ Bonds ☐ Other Not Budgeted

Attachments: LKM Service Awards

Approved for Agenda by:

Randy Frazer, City Manager

Certificate of Appreciation

Conferred Upon

Curtis Tauscher

The League of Kansas Municipalities bestows this Certificate of Appreciation upon Curtis Tauscher in recognition of their 15 year contribution to the betterment of Kansas communities through loyal and dedicated service to the City of Arkansas City.

THE LEAGUE OF KANSAS MUNICIPALITIES

J. Michael Wilkes, President, 2024
League of Kansas Municipalities

Certificate of Appreciation

Conferred Upon

Tony Tapia

The League of Kansas Municipalities bestows this Certificate of Appreciation upon Tony Tapia in recognition of their 25 year contribution to the betterment of Kansas communities through loyal and dedicated service to the City of Arkansas City.

THE LEAGUE OF KANSAS MUNICIPALITIES

J. Michael Wilkes, President, 2024
League of Kansas Municipalities

City Commission Agenda Item

Meeting Date: December 17, 2024

From: Tiffany Parsons, City Clerk

Item: Approve the December 3, 2024, Regular Meeting Minutes

Purpose: Approve December 3, 2024, regular meeting minutes as written.

Background:

Each meeting, the City Commission reviews and approves the minutes of its prior meeting(s).

Commission Options:

1. Approve with consent agenda.
2. Remove item from consent agenda for further consideration.

Approved for Agenda by:

Randy Frazer, City Manager

Tuesday, December 3, 2024
Regular Meeting Minutes
118 W Central Ave, Arkansas City, KS

Routine Business

1. Opening Prayer led by City Attorney Larry Schwartz and Pledge of Allegiance led by Vice Mayor Beeson.
2. Roll Call

PRESENT	ABSENT
Commissioner Chad Beeson	Mayor Jay Warren
Commissioner Diana Spielman	
Commissioner Tad Stover	
Commissioner Charles Tweedy	

Also present from staff: City Attorney Larry Schwartz, City Manager Randy Frazer, City Clerk Tiffany Parsons, Communications Director Shana Adkisson, Assistant Environmental Services Superintendent Kyle Blubaugh, Finance Director/Treasurer Jennifer Waggoner, Fire Chief Stuart Cassaboom, Human Resources Director Marla McFarland, Human Resources Assistant Katie Gooch, and Police Chief Jim Holloway.

3. There were two additions to the agenda, adding an Executive Session category.

Additions:

- ***Executive Session; Item No. 1.*** Recess into executive session for a period of ____ minutes to discuss a matter involving a nonelected city employee, pursuant to K.S.A. 75-4319(b)(1), personnel matters of nonelected personnel. The open meeting will resume in the Commission Chambers at ___ : ____ p.m. ***(Voice Vote)***

- ***Executive Session; Item No. 2.*** Recess into executive session for a period of ____ minutes to discuss the prior acquisition of real estate, pursuant to K.S.A. 75-4319(b)(6), for the preliminary discussion of the acquisition of real property. The open meeting will resume in the Commission Chambers at ___ : ____ p.m. ***(Voice Vote)***

Motion made by Commissioner Spielman, Seconded by Commissioner Tweedy to approve the agenda as amended.

Voice Voting Yea: Commissioner Stover, Commissioner Spielman, Commissioner Tweedy, and Vice Mayor Beeson. Vice Mayor Beeson declared the motion approved.

4. Approval of the Agenda

Motion made by Commissioner Stover, Seconded by Commissioner Beeson to approve the agenda.

Voice Voting Yea: Commissioner Spielman, Commissioner Stover, Commissioner Tweedy, and Vice Mayor Beeson. Vice Mayor Beeson declared the motion approved.

Consent Agenda

Note: All matters listed below on the Consent Agenda are considered under one motion and enacted by one motion. There should be no separate discussion. If such discussion is desired, any item may be removed from the Consent Agenda and then considered separately under Section VI: New Business.

1. Approve the November 19, 2024, regular meeting minutes as written.
2. Resolution authorizing the City to execute a GAAP waiver for the 2025 fiscal year.
3. Approve the Cereal Malt Beverage (CMB) License Renewals for 2025.

Motion made by Commissioner Spielman, Seconded by Commissioner Tweedy to approve the consent agenda as written.

Voice Voting Yea: Commissioner Spielman, Commissioner Stover, Commissioner Tweedy, and Vice Mayor Beeson. Vice Mayor Beeson declared the motion approved; and given ***Resolution No. 2024-12-3664****.*

Public Hearing

City Clerk Parsons offered the following items for consideration:

1. Hold a public hearing regarding the proposed 2024 amended budget. ***(Voice Vote)***

   Finance Director/Treasurer Waggoner presented an overview of the item which effects the water fund being amended to accommodate the increased cost of Well 16 rehabilitation, engineering for the East Pressure Zone Improvements Project, and replacement of the non-budgeted RO membranes at the Water Treatment Facility.

Motion made by Commissioner Spielman and seconded by Commissioner Tweedy to hold a public hearing regarding the proposed 2024 amended budget.

Voice Voting Yea: Commissioner Spielman, Commissioner Stover, Commissioner Tweedy, and Vice Mayor Beeson. Vice Mayor Beeson declared the motion approved.

The floor was opened to the public for comment. With no one from the audience wishing to speak, at the request of Commissioner Spielman, Finance Director/Treasurer Waggoner elaborated further into the reasoning behind this request.

Motion made by Commissioner Stover, seconded by Commissioner Spielman to close the public hearing.

Voice Voting Yea: Commissioner Spielman, Commissioner Stover, Commissioner Tweedy, and Vice Mayor Beeson. Vice Mayor Beeson declared the motion approved.

a. An Ordinance amending specified funds in the budget for the City of Arkansas City for the year beginning January 1, 2024.

Motion made by Commissioner Stover and seconded by Commissioner Tweedy to approve the item as written.

Voice Voting Yea: Commissioner Spielman, Commissioner Stover, Commissioner Tweedy, and Vice Mayor Beeson. Vice Mayor Beeson declared the motion approved; and given ***Ordinance No. 2024-12-4627****.*

Old Business

City Clerk Parsons offered the following items for consideration:

City Attorney Department

1. ***Second Reading*** – An Ordinance authorizing the operation of Special Purpose Vehicles including golf carts, work-site vehicles, micro-utility trucks, and all-terrain vehicles, on the streets within the corporate limits of the City of Arkansas City, Kansas; providing for related matters, including registration and penalties for violation thereof, thus repealing Ordinance No. 2023-03-4576.

   Vice Mayor Beeson announced the amendment to the packet draft which lowered the minimum required manufactured speed for golf carts to state “is designed to be operated at least 25 mph” as opposed to 30 mph. A revised version of the draft was made available to commissioners for review and consideration for approval following the revision request during the work session on Monday.

Ken Harader of 1313 N 1st, sought clarification from City Attorney Schwartz surrounding the same edits made to the golf cart definition as announced by Vice Mayor Beeson, Harader being in favor of the amendment.

Motion made by Vice Mayor Beeson and seconded by Commissioner Stover to approve the item as written.

Voice Voting Yea: Commissioner Spielman, Commissioner Stover, Commissioner Tweedy, and Vice Mayor Beeson. Vice Mayor Beeson declared the motion approved; and given ***Ordinance No. 2024-12-4628****.*

New Business

City Clerk Parsons offered the following items for consideration:

City Manager Department

1. An Ordinance adopting the budgeted pay plan to become effective December 14, 2024.

   Human Resources Director McFarland provided an explanation for the proposed pay plan to include adding a fifty-cent ($0.50) pay adjustment to all regular employee positions. This amount is substituted for the COLA. Following the fifty-cent ($0.50) pay adjustment, an increase Maximum (MAX) by five percent (5%) for each pay range based on employee performance merit.

Motion made by Commissioner Spielman, Seconded by Commissioner Stover to approve the item as written.

Roll Call Voting Yea: Commissioner Spielman, Commissioner Stover, Commissioner Tweedy, and Vice Mayor Beeson. Vice Mayor Beeson declared the motion approved; given ***Ordinance No. 2024-12-4629****.*

Environmental Services Department

1. A Resolution authorizing the City of Arkansas City to enter into a contract with FTC Equipment to replace two pumps at the Edna Davis Lift Station, for an amount not to exceed $13,410.00, excluding shipping.

Assistant Environmental Services Superintendent Blubaugh clarified that staff had originally taken the pumps in for repair but due to the amount of deterioration, it was advised that it would be more feasible to purchase new pumps.

Motion made by Commissioner Stover, Seconded by Commissioner Tweedy to approve the item as written.

Voice Voting Yea: Commissioner Beeson, Commissioner Spielman, Commissioner Stover, Commissioner Tweedy, and Vice Mayor Beeson. Vice Mayor Beeson declared the motion approved; given ***Resolution No. 2024-11-3665****.*

City Manager Updates & Reminders

City Manager Frazer provided the following reminders and updates before the commission.

1. Arkansas City was named one of four awarded the *Safe Streets and Roads for All (SS4A)* grant in the amount of $240,000. This federally funded grant program is to aid in the development of a Safety Action Plan for our city streets. The city was also awarded the *Building Kansas Funding* grant by the state in the amount of $57,000. These two grants together with $3,000 in local funding brings a total of $300,000 towards project funding.

2. 2025 Budget book has been prepared by Finance Director/Treasurer Waggoner and has been submitted to the Government Finance Officers Association (GFOA) for review. Each commissioner will receive a copy.

3. PEC project update handout and internal project update handouts provided to commissioners for review.

4. The City has completed its review of the cyber-attack incident and determined that no personal information was likely compromised. The City will continue to collaborate with external consultants to work towards closing out the investigation and prepare to install newly upgraded and more secure servers.

5. City staff requests a strategic planning retreat with elect officials early in the new year. This annual retreat will serve as a forum for discussing priorities and establishing a forward-looking vision for the City's future direction.

Executive Session

1. Recess into executive session for a period of ____ minutes to discuss a matter involving a nonelected city employee, pursuant to K.S.A. 75-4319(b)(1), personnel matters of nonelected personnel. The open meeting will resume in the Commission Chambers at ___ : ____ p.m.

Motion made by Vice Mayor Beeson, seconded by Commissioner Tweedy to recess into Executive Session a period of 10 minutes to discuss a matter involving a nonelected city employee, pursuant to K.S.A. 75-4319(b)(1), personnel matters of nonelected personnel. The open meeting will resume in the City Commission Chambers at 6:00 p.m. The voice vote was unanimous in favor of the motion.

City Attorney Larry Schwartz, City Manager Randy Frazer, Human Resources Director Marla McFarland and Fire Chief Cassaboom were also included in the closed meeting.

Vice Mayor Beeson called the regular commission meeting back into session at 6:00 PM.

2. Recess into executive session for a period of ____ minutes to discuss the prior acquisition of real estate, pursuant to K.S.A. 75-4319(b)(6), for the preliminary discussion of the acquisition of real property. The open meeting will resume in the Commission Chambers at ___ : ____ p.m. ***(Voice Vote)***

Motion made by Commissioner Beeson, seconded by Commissioner Stover to recess into Executive Session a period of 5 minutes to discuss a matter involving a nonelected city employee pursuant to K.S.A. 75-4319(b)(1), which justifies discussion of personnel matters of nonelected personnel as private matters. The meeting will resume in the City Commission Chambers at 6:07 p.m. The voice vote was unanimous in favor of the motion.

City Attorney Larry Schwartz and City Manager Randy Frazer were included in the closed meeting.

Vice Mayor Beeson called the regular commission meeting back into session at 6:07 PM.

Adjournment

Motion made by Vice Mayor Beeson*, seconded by Commissioner Stover to adjourn the meeting.*

The voice vote was unanimous in favor of the motion. Vice Mayor Beeson *declared the meeting adjourned.*

THE CITY OF ARKANSAS CITY
BOARD OF CITY COMMISSIONERS

(Seal)

_____
Chad Beeson, Vice Mayor

ATTEST:

_____
Tiffany Parsons, City Clerk

Prepared by:

_____
Tiffany Parsons, City Clerk

City Commission Agenda Item

Meeting Date: December 14, 2024

From: Tiffany Parsons, City Clerk

Item: City Board Re-appointment – Brad Bryant SCKMC Board of Trustees

Purpose: Ratify Mayor Jay Warren's re-appointment of Brad Bryant to the South Central Kansas Medical Center (SCKMC) Board of Trustees.

Background:

Brad Bryant has expressed an interest in continuing to serve on the South Central Kansas Medical Center (SCKMC) Board of Trustees. Native to Arkansas City, Brad was initially appointed in February of 2024.

The board and Mayor Warren recommend Brad Bryant be re-appointed to the South Central Kansas Medical Center Board of Trustees.

Commission Options:

1. Approve with consent agenda.
2. Remove from consent agenda to new business for further consideration.

Approved for Agenda by:

Randy Frazer, City Manager

City Commission Agenda Item

Meeting Date: December 17, 2024

From: Randy Frazer, City Manager

Item: Adoption of the 2024 Kansas Region G Hazard Mitigation Plan

Purpose: A Resolution adopting the 2024 Kansas Region G Hazard Mitigation Plan. ***(Voice Vote)***

Background:

The City would like to adopt the most recent update of the Kansas Region G Hazard Mitigation Plan, which includes Butler County, Cowley County, Harper County, Harvey County, Kingman County, Marion County, McPherson County, Reno County, Rice County, Sedgwick County, and Sumner County. This plan outlines strategies to mitigate risks from natural and man-made hazards to improve community safety and resilience.

The Kansas Region G Hazard Mitigation Plan (HMP) is a collaborative effort that identifies strategies to reduce long-term risks to people and property from hazards such as floods, tornadoes, severe storms, and more. The plan, which updates the 2019 HMP, was developed in compliance with federal requirements and reflects input from multiple jurisdictions within Region G.

Key objectives of the HMP include:

- Building a safer future by mitigating risks.
- Prioritizing hazards and implementing effective mitigation strategies.
- Promoting regional cooperation and planning.
- Educating citizens on hazards, mitigation, and preparedness.

The plan is a valuable resource for decision-making regarding ordinances, permits, and capital improvement projects. Adoption of this plan will maintain compliance with federal requirements and ensure eligibility for future mitigation funding opportunities.

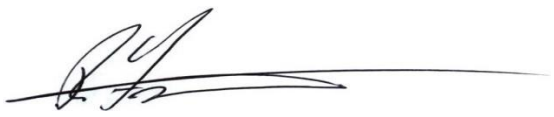
Commission Options:

1. Approve the Resolution
2. Disapprove the Resolution
3. Table the Resolution for further discussion

*Recommended Motion: A*pprove the adoption of the 2024 Kansas Region G Hazard Mitigation Plan, *which includes Cowley County and the City of Arkansas City, as part of the region's efforts to reduce risks associated with* natural and man-made hazards, and to authorize its implementation for sustained hazard mitigation and community resilience."

Attachments: Resolution, July 2024 Kansas Region G Hazard Mitigation Plan

Approved for Agenda by:



Randy Frazer, City Manager

RESOLUTION NO. 2024-12-_____

A RESOLUTION ADOPTING THE 2024 KANSAS HOMELAND SECURITY REGION G HAZARD MITIGATION PLAN.

WHEREAS, The City of Arkansas City recognizes the threat that natural hazards pose to people and property within our community; and

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

WHEREAS, the U.S. Congress passed the Disaster Mitigation Act of 2000 ("Disaster Mitigation Act") emphasizing the need for pre-disaster mitigation of potential hazards;

WHEREAS, the Disaster Mitigation Act made available hazard mitigation grants to state and local governments; and

WHEREAS, an adopted Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple Federal Emergency Management Agency (FEMA) pre- and post-disaster mitigation grant programs; and

WHEREAS, The City of Arkansas City fully participated in the FEMA prescribed mitigation planning process to prepare this Multi-Hazard Mitigation Plan; and

WHEREAS, the Kansas Division of Emergency Management and FEMA Region VII officials have reviewed the Kansas Homeland Security Region G Hazard Mitigation Plan, and have approved it contingent upon this official adoption of the participating governing body; and

WHEREAS, The City of Arkansas City desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Kansas Homeland Security Region G Hazard Mitigation Plan; and

WHEREAS, adoption by the governing body for the City of Arkansas City demonstrates the jurisdictions' commitment to fulfilling the mitigation goals and objectives outlined in this plan, and

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

NOW, THEREFORE, IN CONSIDERATION OF THE AFORESTATED PREMISES, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF ARKANSAS CITY, KANSAS:

SECTION ONE: The Governing Body of the City of Arkansas City, KS hereby adopts the Kansas Homeland Security Region G Hazard Mitigation Plan as an official plan.

SECTION TWO: The City of Arkansas City will submit this Adoption Resolution to the Kansas Division of Emergency Management and FEMA Region VII officials to enable the plan's final approval.

SECTION THREE: This Resolution shall be in full force and effect from its date of passage by the Governing Body of the City of Arkansas City, Kansas.

PASSED AND RESOLVED by the Governing Body of the City of Arkansas City, Kansas, on this 17th day of December, 2024.

_____

Jay Warren, Mayor

(Seal)

ATTEST:

_____
Tiffany Parsons, City Clerk

APPROVED AS TO FORM:

_____
Larry R. Schwartz, City Attorney

CERTIFICATE

I hereby certify that the above and foregoing is a true and correct copy of Resolution No. 2024-12-_____ of the City of Arkansas City, Kansas, adopted by the Governing Body thereof on December 17, 2024. as the same appears of record in my office.

DATED: _____.

_____
Tiffany Parsons, City Clerk

July 2024

Kansas Region G Hazard Mitigation Plan

Butler County
Cowley County
Harper County
Harvey County
Kingman County
Marion County
McPherson County
Reno County
Rice County
Sedgwick County
Sumner County

Prepared By:
Blue Umbrella Solutions

Table of Contents

SECTION **PAG**

List of Appendices

List of Commonly Used Acronyms

Acronym	Meaning
ASCE	American Society of Civil Engineers
BRIC	Building Resilient Infrastructure and Communities
CDC	Centers for Disease Control and Prevention
CFR	Code of Federal Regulations
CRS	Community Rating System
DMA	Disaster Mitigation Act
EAL	Estimated Annual Loss
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
FMA	Flood Mitigation Assistance
GIS	Geographic Information System
HHPD	Rehabilitation Of High Hazard Potential Dam Grant Program
HMA	Hazard Mitigation Assistance
HMGP	Hazard Mitigation Grant Program
HMP	Hazard Mitigation Plan
IBC	International Building Code
LEPC	Local Emergency Planning Committee
NCEI	National Centers for Environmental Information
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NRI	National Risk Index
NWS	National Weather Service
RL	Repetitive Loss
SFHA	Special Flood Hazard Area
SHMO	State Hazard Mitigation Officer
MPC	Mitigation Planning Committee
SRL	Severe Repetitive Loss
STAPLEE	Social, Technical, Administrative, Political, Legal, Economic, and Environmental
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	United States Geologic Survey
WUI	Wildland/Urban Interface

Section 1 – Introduction, Assurances, and Adoption

1.1 Introduction

Mitigation is commonly defined as sustained action taken to reduce or eliminate long-term risk to people and their property from hazards and their effects. Hazard mitigation planning provides communities with a roadmap to aid in the creation and revision of policies and procedures, and the use of available resources, to provide long-term, tangible benefits to the community. A well-designed hazard mitigation plan provides communities with realistic actions that can be taken to reduce potential vulnerability and exposure to identified hazards.

This Multi-Jurisdictional Natural Hazard Mitigation Plan (HMP) was prepared to provide sustained actions to eliminate or reduce risk to people and property from the effects of natural and man-made hazards. This plan documents the Kansas Region G and its participating jurisdictions planning process and identifies applicable hazards, vulnerabilities, and hazard mitigation strategies. This plan will serve to direct available community and regional resources towards creating policies and actions that provide long-term benefits to the community. Local and regional officials can refer to the plan when making decisions regarding regulations and ordinances, granting permits, and in funding capital improvements and other community initiatives.

Specifically, this hazard mitigation plan was developed to:

- Update the 2019 HMP
- Build for a safer future for all citizens
- Foster cooperation for planning and resiliency
- Identify, prioritize, and mitigate against hazards
- Assist with sensible and effective planning and budgeting
- Educate citizens about hazards, mitigation, and preparedness
- Comply with relevant federal requirements

This plan has been designed to be a living document, a document that will evolve to reflect changes, correct any omissions, and constantly strive to ensure the safety of all citizens.

1.2 Assurances

In an effort to reduce natural disaster losses, the United States Congress passed the Disaster Mitigation Act of 2000 (DMA 2000) in order to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). DMA 2000 amended the Stafford Act by repealing the previous Mitigation Planning section (409) and replacing it with a new Mitigation Planning section (322). Section 322 of the DMA makes the development of a hazard mitigation plan a specific eligibility requirement for any local government applying for Federal mitigation grant funds. This HMP was prepared to meet the requirements of the DMA 2000, as defined in regulations set forth by the Interim Final Rule (44 Code of Federal Regulations (CFR) Part 201.4).

All adopting jurisdictions certify that they will comply with all applicable Federal statutes and regulations during the periods for which they receive grant funding, in compliance with 44 CFR 13.11(c), and will amend this plan whenever necessary to reflect changes in State or Federal laws and statutes as required in 44 CFR 13.11(d).

This hazard mitigation plan was prepared to comply with all relevant requirements of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, as amended by the Disaster Mitigation Act of 2000. This plan complies with all the relevant requirements of:

- Code of Federal Regulations (44 CFR) pertaining to hazard mitigation planning
- Federal Emergency Management Agency (FEMA) planning directives and guidelines
- Interim final, and final rules pertaining to hazard mitigation planning and grant funding
- Relevant presidential directives
- Office of Management and Budget circulars
- Any additional and relevant federal government documents, guidelines, and rules.

1.3 Authorities

The HMP relies on the authorities given to participating jurisdictions by its citizens and encoded in local and state law. This plan is intended to be consistent with all policies and procedures that govern activities related to the mitigation programing and planning. In all cases of primacy, State of Kansas and local laws, statutes, and policies will supersede the provisions of the plan.

1.4 Plan Adoption

Upon review and approved pending adoption status by FEMA Region VII, adoption resolutions will be signed by the participating jurisdictions. FEMA approval documentation may be found in Appendix A. Jurisdictional adoption resolutions may be found in Appendix B.

Administration and oversight of the hazard mitigation program is the responsibility of the Kansas Division of Emergency Management (KDEM) Mitigation Branch and local county Emergency Management Departments. The plan will be reviewed annually and will be updated every five years, or as required by changing hazard mitigation regulations or guidelines.

Section 2 – Documentation of the Planning Process

2.1 Planning Process

The process established for this planning effort is based on the Disaster Mitigation Act of 2000 planning and update requirements and the FEMA associated guidance for local hazard mitigation plans. To accomplish this, the following planning process methodology was followed:

- Inform, invite, and involve other mitigation plan stakeholders throughout the state, including federal agencies, state agencies, regional groups, businesses, non-profits, underserved communities, and local emergency management organizations.
- Conduct a thorough review of all relevant current and historic planning efforts.
- Collect data on all related state plans and initiatives, local plans' hazard risk, local plans' mitigation strategies and actions, state owned facilities, flood plains, Repetitive Loss/Severe Repetitive Loss properties, hazard events, on-going and completed mitigation actions, and mitigation program changes since the development of the previous plan.
- Conduct a review of all related and relevant state and local plans for integration and incorporation.
- Develop the planning and project management process, including methodology, review procedures, details about plan development changes, interagency coordination, planning integration, and the organization and contribution of stakeholders.
- Develop and update the profile of Kansas Region G.
- Complete a risk and vulnerability assessment using a Geographic Information System (GIS) driven approach using data from the FEMA and other federal and state agency resources. Analyses were conducted at the state level, county by county, of state-owned facilities, and county by county drawing on local assessments.
- Develop a comprehensive mitigation strategy effectively addressing Kansas Region G's hazards and mitigation program objectives. This included identifying state and local capabilities, reviewing pre and post disaster policies and programs, identifying objectives and goals, identifying mitigation actions and projects, and assessing mitigation actions and projects.
- Determination and implementation of a plan maintenance cycle, including a timeline for plan upgrades and improvements.
- Submission of the plan to FEMA for review and approval.

2.2 Hazard Mitigation Planning Equity

Planning equity refers to the principle of fairness and justice in planning and development processes. It emphasizes the equitable distribution of resources, opportunities, and benefits among all members of a community, particularly those who have historically been marginalized or disadvantaged. The concept of planning equity recognizes that planning decisions can have significant impacts on different groups of people and aims to ensure that these decisions promote social justice and inclusivity. It involves addressing spatial inequalities, such as disparities in access to housing, transportation, public services, green spaces, and employment opportunities.

Planning equity entails involving diverse stakeholders in decision-making processes, including community members, advocacy groups, and underrepresented populations. It seeks to empower marginalized communities by giving them a voice in shaping the development and planning policies that directly affect their lives.

Planning equity and hazard mitigation planning are closely related, as both aim to create more resilient and inclusive communities. As part of this planning effort, the following intersections were considered between planning equity and hazard mitigation planning:

- Vulnerability assessment: Planning equity recognizes that certain communities, particularly marginalized and disadvantaged populations, may be more vulnerable to hazards due to social, economic, and environmental factors. When conducting a vulnerability assessment as part of hazard mitigation planning, it is important to consider equity issues and identify areas or groups that may experience disproportionate impacts.
- Engaging marginalized communities: Planning equity emphasizes the inclusion and participation of diverse stakeholders, including marginalized communities, in decision-making processes. In hazard mitigation planning

it is crucial to engage these communities to understand their unique needs, concerns, and perspect hazards.

- Addressing social disparities: Hazard mitigation planning can help address social disparities by considering the unequal distribution of resources and opportunities in the context of hazards. This can involve implementing mitigation measures that specifically target vulnerable populations, such as affordable housing in safer areas or improved access to emergency services and transportation for underserved communities.
- Equitable distribution of resources: Planning equity promotes the equitable distribution of resources, and this principle can be applied to hazard mitigation planning. It involves ensuring that mitigation measures and investments are allocated fairly, with consideration given to communities that have historically received less attention or investment. This can help reduce existing disparities and enhance the resilience of marginalized communities.

By integrating planning equity into hazard mitigation planning, it becomes possible to develop strategies and actions that not only reduce the risks associated with hazards but also promote social justice, inclusivity, and resilience for all members of the community.

As part of this planning process, the MPC considered potential inequities within the region and encouraged the participation of potentially vulnerable citizens and communities. This process began with recognizing that disparities exist within the region, including health outcomes and living conditions for people of color, people with disabilities, and historically disadvantaged communities. It was recognized that these populations may be at greater risk to the hazards identified in this plan and may be limited in their ability to adapt, respond, and recover if an event were to occur.

As recommended in FEMA's "Guide to Expanding Mitigation," Kansas Region G took a whole community approach to this planning effort, including:

- Inviting historically underserved populations to participate in the planning and decision-making processes,
- Inviting faith based and community organizations, nonprofit groups, schools, and academia to be plan stakeholders,

2.3 2024 Plan Update

In undertaking this planning effort, the KDEM determined that wide variances in planning format and data do not allow for effective continuous planning. To provide planning continuity every effort was made during this plan update to adhere as closely as possible to elements of the 2019 HMP. As such, the level of analysis and detail included in this risk assessment is cumulative, allowing participating jurisdictions to have a robust base to further mold and improve their mitigation strategies over the next five years.

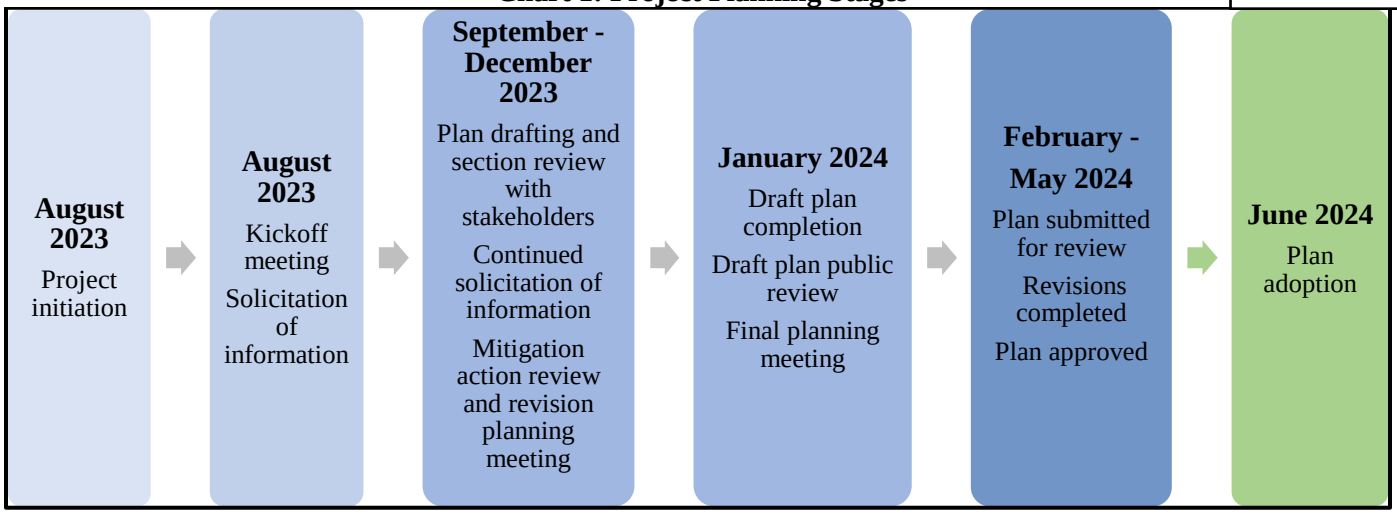
As part of this planning effort, each section of the previous mitigation plan was reviewed and revised based on current and available data. The plan was reviewed and revised against the following elements:

- Compliance with the current regulatory environment
- Completeness of data
- Correctness of data
- Capability differentials
- Current regional environment

Based on the above criteria, each section of the 2019 HMP was reviewed and revised as required. In addition to data revisions, the format and sequencing of the previous plan was updated for ease of use and plan clarity. Additionally, during this process, and after a thorough review and discussion with all stakeholders, it was determined that the priorities of the Kansas Region G in relation to hazard mitigation planning have not changed during the five years of the previous planning cycle.

The Kansas Region G HMP review and revision process began in August 2023, with the first public meeting held in August 2023. The following chart indicates the planning stages completed as part of this process:

Chart 1: Project Planning Stages



2.4 Planning Document Resources

The hazard mitigation plan is an overarching document that is both comprised of, and contributes to, various other jurisdictional plans. In creating this plan, all the planning documents identified below were consulted and reviewed, often extensively. In turn, when each of these other plans is updated, they will be measured against the contents of the hazard mitigation plan.

Below is a list of the various planning efforts, sole or jointly administered programs, and documents reviewed and included in this hazard mitigation plan. While each plan can stand alone, their review and functional understanding was pivotal in the development of this plan and further strengthens and improves a jurisdiction's resilience to disasters.

- **Kansas Region G 2019 Multi-Jurisdictional Natural Hazard Mitigation Plan**
  The previous HMP has been reviewed and is incorporated throughout this plan per FEMA requirements.
- **Jurisdictional Comprehensive Plans**
  These plans as available, set policies that help the jurisdiction address critical issues facing the community, achieve goals based on priority, and coordinate public and private efforts for mutual success. They also provide the historical context, background, and current data necessary to understand issues and choose solutions as well as seek various forms of funding.
- **Participating Jurisdictions Master and/or Comprehensive Plans:**
  These plans, as available, help jurisdictions set policies that help address critical issues facing the community, achieve goals based on priority, and coordinate public and private efforts for mutual success. They also provides the historical context, background, and current data necessary to understand issues and choose solutions as well as seek various forms of funding.
- **Jurisdictional Emergency Operations Plans**
  These plans are used by jurisdictions to develop procedures for the protection of personnel, equipment, and critical records to help determine existing established policies that ensure the continuity of government and essential services during and after disasters.
- **State of Kansas 2023 Hazard Mitigation Plan**
  The State of Kansas Hazard Mitigation Plan is intended to provide the framework for hazard mitigation. This plan set a baseline for standards and practices for hazard mitigation planning and was used as a resource for information and data.
- **Participating Jurisdiction Planning and Zoning Documents and Ordinances**
  These documents were reviewed, assessed, and cataloged to compile each participating jurisdiction's capabilities.
- **Flood Mitigation Plans:**
  These plans are developed by communities, local governments, or relevant authorities to outline measures and strategies aimed at reducing the impact of flooding on people, property, and the environment. The primary goal

of a flood mitigation plan is to minimize the risks associated with flooding through proac infrastructure improvements, and community engagement.

- **Fire Mitigation Plans:**
  These plans document developed to reduce the risk of wildfires and minimize their potential impact on people, property, and ecosystems. The primary objectives of a fire mitigation plan are to enhance community resilience, protect critical infrastructure, and promote ecosystem health.
- **Land Use Plans:**
  These plans outline the intended development, management, and use of land within a specific area or jurisdiction. The goal of a land use plan is to promote orderly and sustainable development, taking into account factors such as economic, social, and environmental considerations.

2.5 Technical Resources

The MPC employed a variety of technical resources during plan development. These technical resources were instrumental in completing an accurate vulnerability and risk assessment, and include:

- **Kansas Emergency Operations Plan Mapping Program:** Assisted with the development of maps for this plan.
- **FEMA Digital Flood Insurance Rate Maps**: FEMA's National Flood Hazard Layer data was instrumental in mapping floodplain locations and estimating potential flood impacts and loss estimates.
- **FEMA National Risk Index (NRI):** An online mapping application that identifies communities most at risk to natural hazards. The mapping service visualizes natural hazard risk metrics and includes data about expected annual losses from natural hazards, social vulnerability, and community resilience. The NRI's interactive web maps are at the county and Census tract level and made available via GIS services for custom analyses.
- **National Oceanic and Atmospheric Administration (NOAA)/National Centers for Environmental Information (NCEI):** Weather data and historical events were primarily provided by NCEI.
- **U.S. Army Corps of Engineers (USACE):** Levee and flood control data.
- **U.S. Department of Agriculture (USDA):** Drought and agricultural data.
- **U.S. Geological Survey:** Geologic hazard occurrence and probability data.
- **National Weather Service (NWS):** Storm event occurrence and probability data.
- **KDEM:** Dam safety program and hazardous material data.

2.6 Mitigation Planning Committee

Project initiation began with the selection of a Mitigation Planning Committee (MPC), consisting of each participating county emergency manager from Kansas Region G and KDEM Mitigation Branch staff. From project inception to completion, the MPC was notified at each major plan development milestone through a combination of meetings and electronic communication.

In general, all MPC members were asked to participate in the following ways:

- Attend and participate in meetings
- Assist with the collection of data
- Assure the accuracy and completeness of data
- Assist with the revision and development of mitigation actions
- Review planning elements and drafts
- Integrate hazard mitigation planning elements with other planning mechanisms

As an additional responsibility as part of the MPC, KDEM members helped establish project operating procedures and timelines, and assisted with the establishment of project milestones.

The following table represents members of the MPC:

Table 1: MPC Members

Agency	Representative	Title
Butler County	Keri Korthals	Emergency Manager
Cowley County	Doug Allison	Emergency Manager
Harper County	Christina Cintron	Emergency Manager
Harvey County	Mike Anderson	Emergency Manager
Kingman County	Macay Ewy	Emergency Manager
Marion County	Marcy Hostetler	Emergency Manager
McPherson County	Julie McClure	Emergency Manager
Reno County	Todd Strain	Emergency Manager
Rice County	Greg Klein	Emergency Manager
Sedgwick County	Julie Stinson	Emergency Manager
Sumner County	James Fair	Emergency Manager
KDEM	Stephanie Goodman	State Hazard Mitigation Officer
KDEM	Mike Ahlf	Mitigation Planner
KDEM	Dirk Christian	Planning & Mitigation Bureau Director
KDEM	Jim Leftwich	Southcentral Regional Coordinator

Repeated outreach efforts were made to equity partners extending opportunities to have a representative on the MPC.

2.7 Stakeholders

All eligible jurisdictions were invited to participate in the organization, drafting, completion and adoption of this plan. Invited jurisdictions included, but were not limited to, building officials, floodplain managers, elected officials, relevant State of Kansas agencies, counties, cities, school districts, non-profit agencies, and businesses.

In order to have an approved hazard mitigation plan, DMA 2000 requires that each jurisdiction participate in the planning process. Each jurisdiction choosing to participate in the development of the plan were required to meet detailed participation requirements, which included the following:

- When practical and affordable, participation in planning meetings
- Provision of information to support the plan development
- Identification of relevant mitigation actions
- Review and comment on plan drafts
- Formal adoption of the plan

Based on the above criteria, the following jurisdictions participated in the planning process, and will individually as a jurisdiction adopt the approved hazard mitigation plan:

Table 2: Plan Stakeholders

Jurisdiction	Requirements Met	Name	Title
Butler County	**x**	Keri Korthals	Emerg. Mgmt. Director
Andover	x	Jenni McCausland	City Administrator
Augusta	x	Josh Shaw	City Manager
Benton	x	Matt Engels	City Administrator
Cassoday	x	Raye Ann Vaught	City Clerk
Elbing	x	Marsha Clark	City Clerk
El Dorado	x	David Dillner	City Manager
Latham	x	Laura Burner	City Clerk
Leon	x	Jodie Laidler	City Clerk
Potwin	x	Sherri Wedel	City Clerk
Rose Hill	x	Warren Porter	City Administrator
Towanda	x	Andy Newbrey	City Administrator
Whitewater	x	Anne Morrow	City Clerk
Augusta Township	x	Nick McClure	Trustee

Table 2: Plan Stakeholders

Jurisdiction	Requirements Met	Name	Title
Benton Township	x	Randall Meisch	Trustee
Bloomington Township	x	Marc Cain	Trustee
El Dorado Township	x	Darcy McCoy	Trustee
Fairmount Township	x	Tim Stuckey	Trustee
Glencoe Township	x	Lorna Lyon	Trustee
Little Walnut Township	x	Dan Haines	Trustee
Milton Township	x	David Toevs	Trustee
Murdock Township	x	Chris Brackenridge	Trustee
Prospect Township	x	Wayne Taylor	Trustee
Rosalia Township	x	Mark Gray	Trustee
Spring Township	x	Kathy McDowell	Trustee
Sycamore Township	x	William Stacey	Trustee
Union Township	x	Larry Hodges	Trustee
Butler Community College	x	Kim Krull	President
St. James School	x	Stephanie Rziha	Superintendent
USD 205 - Bluestem	x	Joel Lovesee	Superintendent
USD 206 – Remington	x	Joe Gerber	Superintendent
USD 375 – Circle	x	Don Potter	Superintendent
USD 385 – Andover	x	Brett White	Superintendent
USD 394 – Rose Hill	x	Chuck Lambert	Superintendent
USD 396 – Douglass	x	Rob Reynolds	Superintendent
USD 402 – Augusta	x	Matt Ward	Superintendent
USD 490 – El Dorado	x	Jenifer Davis	Superintendent
USD 492 – Flinthills	x	Brian Spencer	Superintendent
Butler Rural Electric Cooperative	x	Kevin Brownlee	CEO
Butler Co. Fire #3	x	Kevin Webster	Fire Chief
Butler Co. Fire #6	x	Jarred Hebb	Fire Chief
Butler Co. Fire #7	x	Rex Stephens	Fire Chief
Butler Co. Fire #10	x	Barry Black	Fire Chief
Whitewater River Consolidated Fire District	x	Bob Bartlett	Fire Chief
Butler Co. Conservation District	x	Sandy Koontz	District Manager
Rural Water District #3	x	Connie Sorum	Office Manager
Rural Water District #5	x	Terry Brown	District Manager
Rural Water District #7	x	Kathy Hoch	Office Manager
Watershed District #18	x	Wayne Chambers	President
Watershed District #22	x	Harry Clayton	President
Watershed District #27	x	David Piha	President
Watershed District #28	x	Daniel Deepe	President
Watershed District #33	x	Don Rommelfanger	President
Susan B Allen Hospital	x	Melissa Hall	President/CEO
Cowley County	**x**	**Lucas Goff**	**County Administrator**
Arkansas City	x	Randy Frazer	City Manager
Atlanta	x	Darren Underwood	Mayor
Burden	x	Julia Loving	City Clerk
Dexter	x	Steve Joyce	Mayor
Geuda Springs	x	Shannon Wendt	City Clerk
Parkerfield	x	Michael Bergagnini	Mayor
Udall	x	Erik King	Police Chief
Winfield	x	Taggart Wall	City Manager
Beaver Township	x	Deborah Collingsworth	Trustee
Dexter Township	x	Jon Johnson	Treasurer
Bolton Township	x	Eddie Crittenden	Treasurer
Harvey Township	x	Edward White	Clerk

Table 2: Plan Stakeholders

Jurisdiction	Requirements Met	Name	Title
Liberty Township	x	Janene Follmer	Trustee
Maple Township	x	Danny Gossett	Trustee
Ninnescah Township	x	Mark Barnett	Trustee
Ottor Township	x	Glenn Jarboe	Clerk
Pleasant Valley Township	x	Brian Biddle	Trustee
Sheridan Township	x	Lewis Johnson	Trustee
Silver Creek Township	x	Robert Tatum	Clerk
Silverdale Township	x	Ronda Melton	Treasurer
Tisdale Township	x	Thomas Neal	Clerk
Walnut Township	x	Bob McGregor	Clerk
Cowley Community College	x	Randy Smith	President
USD 462 – Central	x	Rick Shaffer	Superintendent
USD 463 – Udall	x	Dale Adams	Superintendent
USD 465 – Winfield	x	Kent Tamsen	Director of Operations
USD 470 – Arkansas City	x	Will Pfannenstiel	Assistant Superintendent
USD 471 – Dexter	x	KB Criss	Superintendent
Cowley County RFD #4	x	Randy Hoffman	Fire Chief
Cowley County RFD #7	x	Vincent Warren	Fire Chief
Rural Water District # 1	x	Elgin Wahlborg	Board Chairman
Big Caney RWD # 31	x	Dale Steward	President
Butler REC	x	Alan Harper	Operations Manager
Sumner Cowley Electric Cooperative	x	Coni Adams	CEO
Harper County	**x**	**Christina Cintron**	**Emergency Manager**
Anthony	x	Cyndra Kastens	City Administrator
Attica	x	Lori Ryan	City Clerk
Bluff City	x	Earl Marsh	Mayor
Danville	x	Josh West	Mayor
Harper	x	Tiffany Hartson	City Administrator
USD 361 - Anthony / Harper	x	Josh Swartz	Superintendent
USD - 511 Attica	x	Brandie Waldschmidt	Superintendent
Sumner Cowley Electric Cooperative	x	Coni Adams	Chief Executive Officer
Sunflower Electric	x	Todd Hillman	CEO
Wheatland REC	x	Quentin Wheeler	Safety Director
Patterson Hospital	x	Aaron Schule	Disaster Preparedness
Harvey County	**x**	Anthony Swartzendruber	County Administrator
Burrton	x	Missy Ducimetiere	Mayor
Halstead	x	Charles Muller	Treasurer
Hesston	x	Gary Emry	City Administrator
Newton	x	Suzanne Loomis	Director of Public Works
North Newton	x	Kyle Fidler	City Administrator
Sedgwick	x	Kyle Nordick	City Administrator
Walton	x	Barry Wentz	Mayor
Alta Township	x	Gregg Ratzlaff	Trustee
Burrton Township	x	Larry Ressler	Treasurer
Darlington Township	x	Curtis Schmidt	Trustee
Emma Township	x	Nathan Simmons	Clerk
Halstead Township	x	James Nightingale	Trustee
Highland Township	x	Douglas Unruh	Clerk
Lake Township	x	Echo Blubaugh	Treasurer
Lakin Township	x	Brenda Sooter	Treasurer
Macon Township	x	Donald Haury	Clerk
Newton Township	x	Melinda Budde	Clerk
Pleasant Township	x	Lynn Voth	Trustee

Table 2: Plan Stakeholders

Jurisdiction	Requirements Met	Name	Title
Sedgwick Township	x	Justin Stucky	Trustee
Walton Township	x	Kevin Sauerwein	Treasurer
USD 369 - Burrton	x	Kara Schwindt	Superintendent
USD 373 - Newton	x	Fred VanRanken	Superintendent
USD 439 - Sedgwick	x	Rae Niles	Superintendent
USD 440 - Halstead	x	Ron Barry	Superintendent
USD 460 - Hesston	x	Kevin Logan	Superintendent
Hesston College	x	Michael Smalley	VP of Student Life
Harvey County RWD #1	x	Michelle Watts	Office Manager
Butler REC	x	Doug Veatch	Engineer & Training Coordinator
Flint Hills REC	x	Travis Griffin	Members Services Manager
Burrton CFD#5	x	Gerry Campbell	Burrton CFD #5
Harvey County RFD #1 (Walton)	x	Bob Reinhardt	RFD #1
Little Arkansas River Drainage District	x	David Friesen	Board of Directors
Sand Creek Watershed	x	Bill Hamm	Treasurer
Ark Valley Electric Cooperative	x	Jackie Holmberg	General Manager
Kingman County	**x**	**Macay Ewy**	**Emergency Manager**
USD 331 - Kingman/Norwich	x	Andy Albright	Assistant Superintendent
Ark Valley Electric Cooperative	x	Jackie Holmberg	General Manager
Sumner Cowley Electric Cooperative	x	Coni Adams	CEO
Marion County	**x**	**Dave Mueller**	Chairman Board of County Commissioners
Burns	x	Mike Hammann	Mayor
Florence	x	Terry Britton	City Superintendent
Goessel	x	Benjamin Schmidt	Mayor
Hillsboro	x	Lou Thurston	Mayor
Lehigh	x	David Terrell	Mayor
Lincolnville	x	Sherri Pankratz	Mayor
Lost Springs	x	Frank Wirtz	Treasurer
City of Marion	x	Zach Hudlin	Interim Chief of Police
Peabody	x	R. Thomas Spencer	Mayor
Ramona	x	Carl Gehrke	Mayor
Tampa	x	Tim Svoboda	Mayor
Tabor College	x	Dr. Frank Johnson	Executive Vice President
USD 397 - Centre	x	Larry Geist	Superintendent
USD 398 - Peabody / Burns	x	Antoinette Root	Superintendent
USD 408 - Marion / Florence	x	Kristi Mercer	Clerk of the Board
USD 410 - Hillsboro	x	Clint Corby	Superintendent
USD 411 - Goessel	x	Mark Crawford	Superintendent
Marion County Special Education	x	Ron Traxson	Director
Butler REC	x	Alan Harper	Operations Manager
Flint Hills REC	x	Charles Goeckel	General Manager
Hillsboro Hospital	x	Krista Bartel	Clinic Manager
St. Luke Hospital	x	Lindsay Hutchison	Safety Manager
Marion Fire District #1	x	Mark Weibe	Fire Chief
Marion Fire District #2	x	Bruce Schmidt	Fire Board Chairman
Marion Fire District #5	x	Lester Kaiser	Fire Chief
Marion Fire District #7	x	Greg Berens	Fire Chief
Eastshore Water District	x	Brad Gorsuch	Director
Rural Water District 1	x	James Srajer	Chairman
Hillsboro Industries	x	Mike Gerken	CEO
McPherson County	**x**	**Julie L McClure**	**Director**

Table 2: Plan Stakeholders

Jurisdiction	Requirements Met	Name	Title
Canton	x	Linda Klatt	Cit Clerk
Galva	x	Lori Tector	City Clerk
Inman	x	Barb Tuxhorn	City Clerk
Lindsborg	x	Kristi Northcutt	City Administrator
Marquette	x	Brooke Oakley	City Administrator
City of McPherson	x	Nick Gregory	City Administrator
Moundridge	x	Murray McGee	City Administrator
Windom	x	Tricia Arnold	City Clerk
Bethany College	x	Dean Allman	Director of Facilities
Central Christian College of Kansas	x	Doug Vanderhoff	Maint/IT Director
McPherson College	x	Marty Sigwing	Director of Operations
St. Joseph Catholic School	x	Peggy Bahr	Principal
USD 400 – Lindsborg	x	Heath Hogan	Superintendent
USD 418 - McPherson	x	Shiloh Vincent	Superintendent
USD 419 - Canton	x	Jim Struber	Superintendent
USD 423 - Moundridge	x	Cody Rierson	Superintendent
USD 448 - Inman	x	Scott Friesen	Superintendent
Arkansas Valley Electric	x	Jackie Holmberg	General Manager
DS&O Rural Electric	x	Derrick Rutherford	General Manager
Flint Hills Electric	x	Charles Goeckel	General Manager
Midwest Energy, Inc.	x	Craig Augustine	Operations Construction & Project Manager
McPherson Board of Public Utilities	x	Mike Prieb	Director of Safety
Post Rock Rural Water District	x	Doug Janssen	General Manager
Lindsborg Community Hospital	x	Larry VanDerWege	Administrator
McPherson Hospital	x	Lew Newberry	CEO
Mercy Hospital	x	Aaron Herbel	Administrator
Reno County	**x**	**Todd Strain**	**Emergency Management Specialist**
Buhler	x	Jake Schmidt	Mayor
Haven	x	Adam Wright	Mayor
The Highlands	x	Carol Moore	Mayor
Hutchinson	x	Jon Richardson	Mayor
Nickerson	x	Peggy Ruebke	Mayor
Partridge	x	Todd Strain	Proxy
South Hutchinson	x	Paul Scofield	Mayor
Turon	x	Linda J. Brown	Mayor
Willowbrook	x	Todd Strain	Proxy
Castleton Township	x	Todd Strain	Proxy
Grant Township	x	Todd Strain	Proxy
Haven Township	x	Todd Strain	Proxy
Salt Creek Township	x	Todd Strain	Proxy
Sylvia Township	x	Todd Strain	Proxy
Walnut Township	x	Todd Strain	Proxy
Central Christian School	x	Dr. John Walker	President
Holy Cross School	x	Shelley Henn	President
Hutchinson Community College	x	Dr. Carter File	President
USD 309 - Nickerson	x	Curtis Nightingale	Superintendent
USD 310 - Fairfield	x	Betsy McKinney	Superintendent
USD 312 - Haven	x	Craig Idacavage	Superintendent
USD 313 - Buhler	x	Cindy Couchman	Superintendent
Hutchinson Correctional Facility	x	Dan Schnurr	Warden
Hutchinson Regional Hospital	x	Benjamin Anderson	President
Ark Valley Electric Cooperative	x	Jackie Holmberg	General Manager

Table 2: Plan Stakeholders

Jurisdiction	Requirements Met	Name	Title
Midwest Energy	x	Craig Augustine	Project Manager
Sunflower Electric	x	Todd Hillman	CEO
Drainage District #2	x	Todd Strain	Proxy
Reno County Drainage District #3	x	Todd Strain	Proxy
Rice County	**x**	**Greg Rice**	**Emergency Manager**
Chase	x	Tom Kizzar	Mayor
Little River	x	Donald Teeters	Mayor
Lyons	x	Dustin Schultz	Mayor
Sterling	x	Ian Hutcheson	City Manager
USD 405 - Lyons	x	Bill Day	Superintendent
Ark Valley Electric Cooperative	x	Jackie Holmberg	General Manager
Sunflower Electric	x	Todd Hillman	CEO
Sedgwick County	**x**	**Jonathan Schropfer**	**Emergency Management Planner**
Andale	x	Patty Hein	City Clerk
Bel Aire	x	Ty Lasher	City Manager
Bentley	x	James Bryan	Chief of Police
Cheney	x	Ken Winter	Chief of Police
Clearwater	x	Courtney Zollinger	City Administrator
Colwich	x	Stephanie Guy	City Clerk
Derby	x	Kiel Mangus	City Manager
Eastborough	x	Lisa Wright	City Clerk
Garden Plain	x	Kimberly McCormick	City Clerk
Goddard	x	Brian Silcott	City Manager
Haysville	x	Jeff Whitfield	Chief of Police
Kechi	x	Kamme Sroufe	City Administrator
Maize	x	Richard LaMunyon	City Administrator
Mount Hope	x	Leslie Stephan	City Clerk
Mulvane	x	Gordon Fell	Director of Public Safety
Park City	x	Sean Fox	City Administrator
Valley Center	x	Ryan Shrack	Development Director
Wichita	x	Lane Pearlman	Fire Chief
USD 259 - Wichita	x	Terri Moses	Assistant Superintendent
USD 260 - Derby	x	Matt Liston	Superintendent
USD 261 - Haysville	x	B.J. Knudsen	Executive Director of Ops
USD 262 - Valley Center	x	Mike Bonner	Assistant Superintendent
USD 263 - Mulvane	x	Jay Ensley	Superintendent
USD 264 - Clearwater	x	Chris Cooper	Superintendent
USD 265 - Goddard	x	Ronny G. Lieurance	Executive Director of Safety
USD 266 - Maize	x	Raquel Greer	Superintendent
USD 267 - Renwick	x	Tim Hayden	Superintendent
USD 268 - Cheney	x	Mark Woofter	Superintendent
USD 356 - Conway Springs	x	Clay Murphy	Superintendent
KU School Medicine	x	Akinlolu Ojo	Executive Dean
Wichita State University	x	Dr. Richard Muma	President
Wheatland REC	x	Quentin Wheeler	Emergency Coordinator
Sedgwick County REC	x	Scott Ayres	CEO
Sedgwick County Fire District #1	x	Douglas Williams	Fire Chief
Sumner County	**x**	**James Fair**	**Emergency Manager**
Argonia	x	James Fair	Mayor
Belle Plaine	x	Greg Harlan	Mayor
Geuda Springs	x	Neil Terry	Mayor
Oxford	x	David Olmsted	Mayor

Table 2: Plan Stakeholders

Jurisdiction	Requirements Met	Name	Title
Wellington	x	Joe Soria	Mayor
USD 353 - Wellington	x	Adam Hatfield	Superintendent
USD 356 - Conway Springs	x	Clay Murphy	Superintendent
USD 357 - Belle Plaine	x	Pete Bastian	Superintendent
USD 358 - Oxford	x	Dr. Cathi Wilson	Superintendent
USD 359 - Argonia	x	Dr. Rustin Clark	Superintendent
USD 360 - Caldwell	x	Traci Becker	Superintendent
USD 509 - South Haven	x	Daniel Farley	Superintendent
Wellington Christian Academy	x	John Showman	Principal
Sumner/Cowley Electric Cooperative	x	Coni Adams	CEO
Sunflower Electric	x	Todd Hillman	CEO
Wheatland Electric	x	Quentin Wheeler	Safety Director
RWD #1	x	James Fair	Emergency Manager
RWD #6	x	James Fair	Emergency Manager
RWD #7	x	James Fair	Emergency Manager
Sumner County Hospital District #1	x	Brooke Bollman	CEO

Kansas Region G acknowledges that effective hazard mitigation planning should involve a diverse group of stakeholders, including government agencies, private sector entities, private non-profit organizations, quasi-governmental authorities, and special districts. The coordination and cooperation of these stakeholders assists with all aspects of plan development, including:

- Data collection
- Risk analysis
- High and Significant Hazard dam information
- Statewide capability assessment
- Mitigation action review, revision, and development
- Plan implementation

The Kansas Region G MPC provided the opportunity for additional HMP stakeholders, including jurisdictional National Flood Insurance Program (NFIP) coordinators, agencies involved in regulating and overseeing development, neighboring communities, agencies, businesses, academia, non-profits, underserved or marginalized communities, and other interested parties to be involved in the mitigation planning process. Stakeholders were notified of the process through direct communication with the Kansas Region G MPC members, who were provided with details on the breadth of stakeholders to invite at the beginning of the planning process, jurisdictional website notices, and advertisements on social media.

As recommended in FEMA's "Guide to Expanding Mitigation" Kansas Region G took a whole community approach to this planning effort, including:

- Inviting historically underserved populations to participate in the planning and decision-making processes.
- Inviting faith based and community organizations, nonprofit groups, schools, academia, and tribal partners to be plan stakeholders.

As indicated in the above stakeholder list, success was had in engaging faith-based organizations, particularly religious schools, Unified School Districts, and universities. No tribal organizations were identified in the region.

Local building departments played a critical role in creating and reviewing this HMP. Their expertise was used to help identify local vulnerabilities and develop building-related mitigation measures (please see section 5.3)

Jurisdictional NFIP coordinators played a key role in mitigation planning at the community level. These were actively engaged and for their expertise on flood risk, mitigation strategies, and NFIP compliance (please see Section 5.4).

2.8 Community Outreach

As part of the overall planning process, the community was provided with numerous opportunities to contribute and comment on the creation and adoption of the plan. These opportunities included:

- Advertised meeting invitations
- Comment period upon completion of draft plan
- Online survey

Experience has indicated that public meetings, no matter how well advertised, generally do not generate either participation or interest in the planning process. Even so, three open meetings were held at an easily accessible community locations. To help generate community interest and participation, a parallel online outreach strategy was undertaken. An online HMP survey was created, the Kansas Region G Hazard Mitigation Plan Update Survey. This online survey portal allowed community members to provide feedback and input on the HMP update using a series of guided questions and open comment fields. Community members commented through this survey, and these comments are both incorporated in this HMP and are included in Appendix B.

Input from the general public provided the MPC with help confirming the delineated hazards in this plan, a clearer understanding of local concerns, increased the likelihood of citizen buy-in concerning proposed mitigation actions, and provided elected officials with a guide and tool to set regional ordinances and regulations. Additionally, as citizens were made more aware of potential hazards and the local process to mitigation against their impacts, it was believed that they would take a stronger role in making their homes, neighborhoods, schools, and businesses safer from the potential effects of natural hazards.

2.9 Planning Meetings

Three in-person meetings were conducted for the 2024 HMP update. All of the meetings were held in a publicly accessible location and advertised as open to the public. These meeting were conducted to discuss the mitigation planning process as well as gain public support and input for the plan update. The following is a brief synopsis of those meetings.

- **HMP Update Kick-Off and Public Information Meeting – August 17, 2023:** Kansas Region G hosted a kick-off meeting for the MPC, stakeholders, and the public. At the meeting, MPC members, plan stakeholders, and the public were invited to voice any concerns, ask questions, and provide input on the mitigation plan update. Additionally, MPC members were tasked with collecting contact information, hazard history, facility information, and other pertinent information from participating jurisdictions.
- **HMP Plan Review, Capability Review, and Mitigation Strategy Review Meeting – December 12, 2023:** Kansas Region G hosted a mid-term planning meeting for the MPC. Attendees met to review and revise, as necessary, the region's hazards list and vulnerability assessment. MPC members and jurisdictional representatives also reviewed the proposed and revised mitigation strategy to ensure it was in-line with the current planning environment.
- **HMP Update Final Review Meeting – January 31, 2024:** Kansas Region G hosted a public final plan review meeting for the MPC, stakeholders, and the public. At the meeting, MPC members, jurisdictional representatives, plan stakeholders, and the public were invited to voice any concerns, ask questions, and provide input on the mitigation plan update. Additionally, members of the public were invited to review a draft copy of the HMP update posted to jurisdictional and county websites for two weeks prior to the final meeting, and prior to its submission to FEMA Region VII.

Additionally, there was regular informal phone and email communications with local emergency managers, plan stakeholders and the State Hazard Mitigation Officer (SHMO) to provide updates concerning the phases of plan development.

Section 3 – Regional Profile and Development Trends

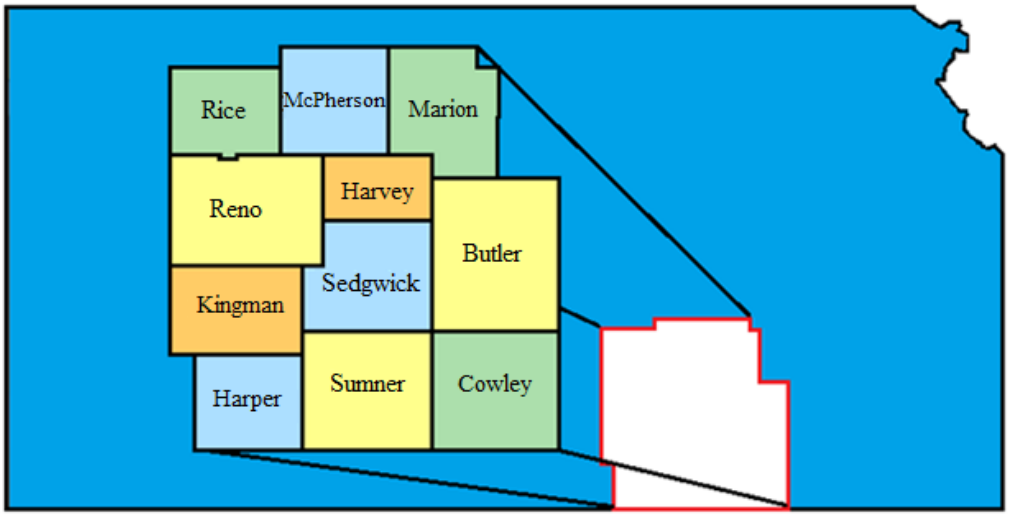
3.1 Introduction

Data concerning development trends and conditions is of great importance in determining regional and local risk and vulnerability to identified hazards, especially in locations which are susceptible to identified hazards. In general, any increase in population or development in hazard susceptible areas tends to increase both the risk and the vulnerability to that hazard. As such, the information presented in this chapter details relevant population and building statistics for the region on a local level basis. This data will then be used to determine and refine potential hazard vulnerability in succeeding sections.

3.2 Regional Maps

The following map details the locations of Kansas Region G relative to the State of Kansas:

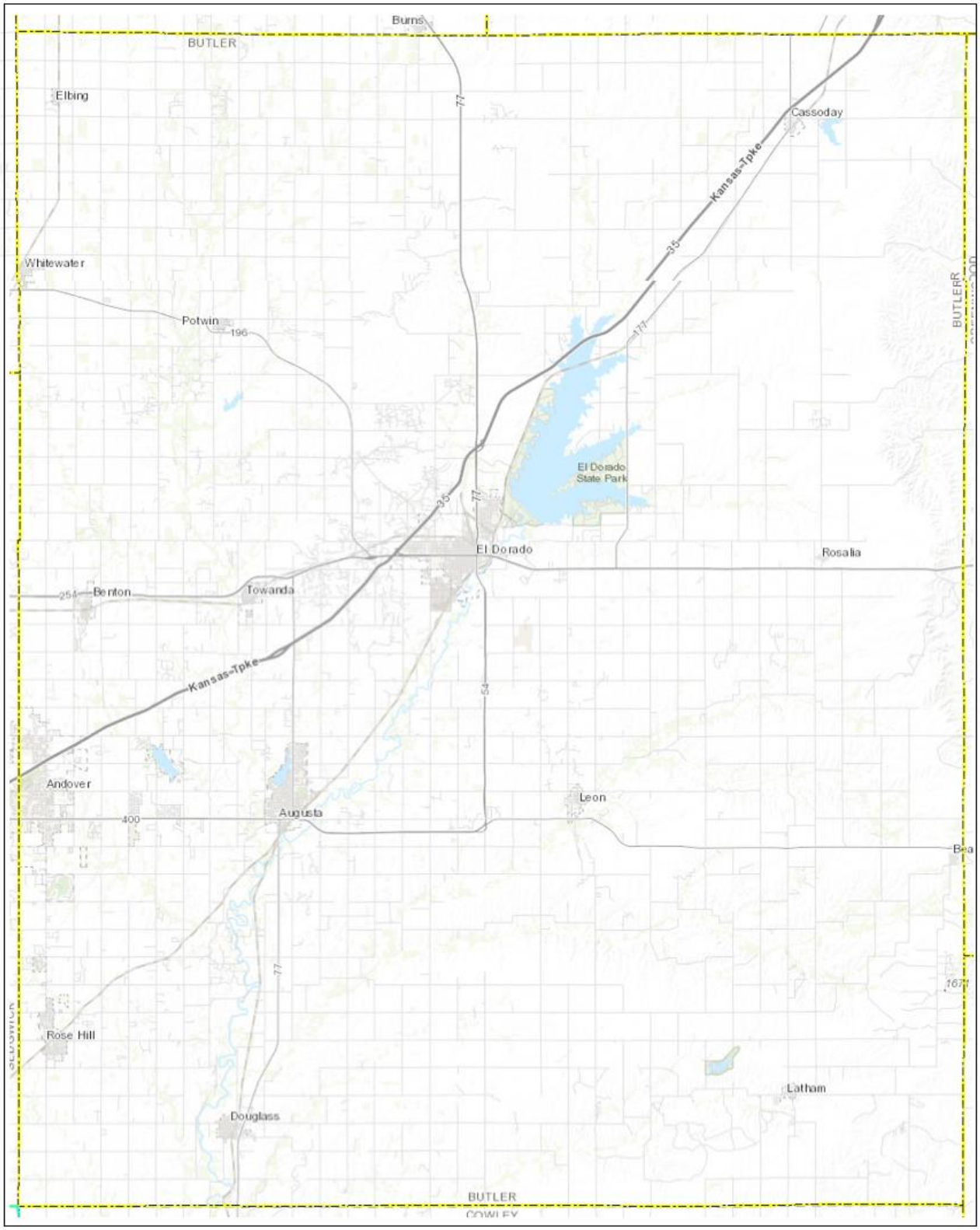
Map 1: Kansas Region G



Source: KDEM

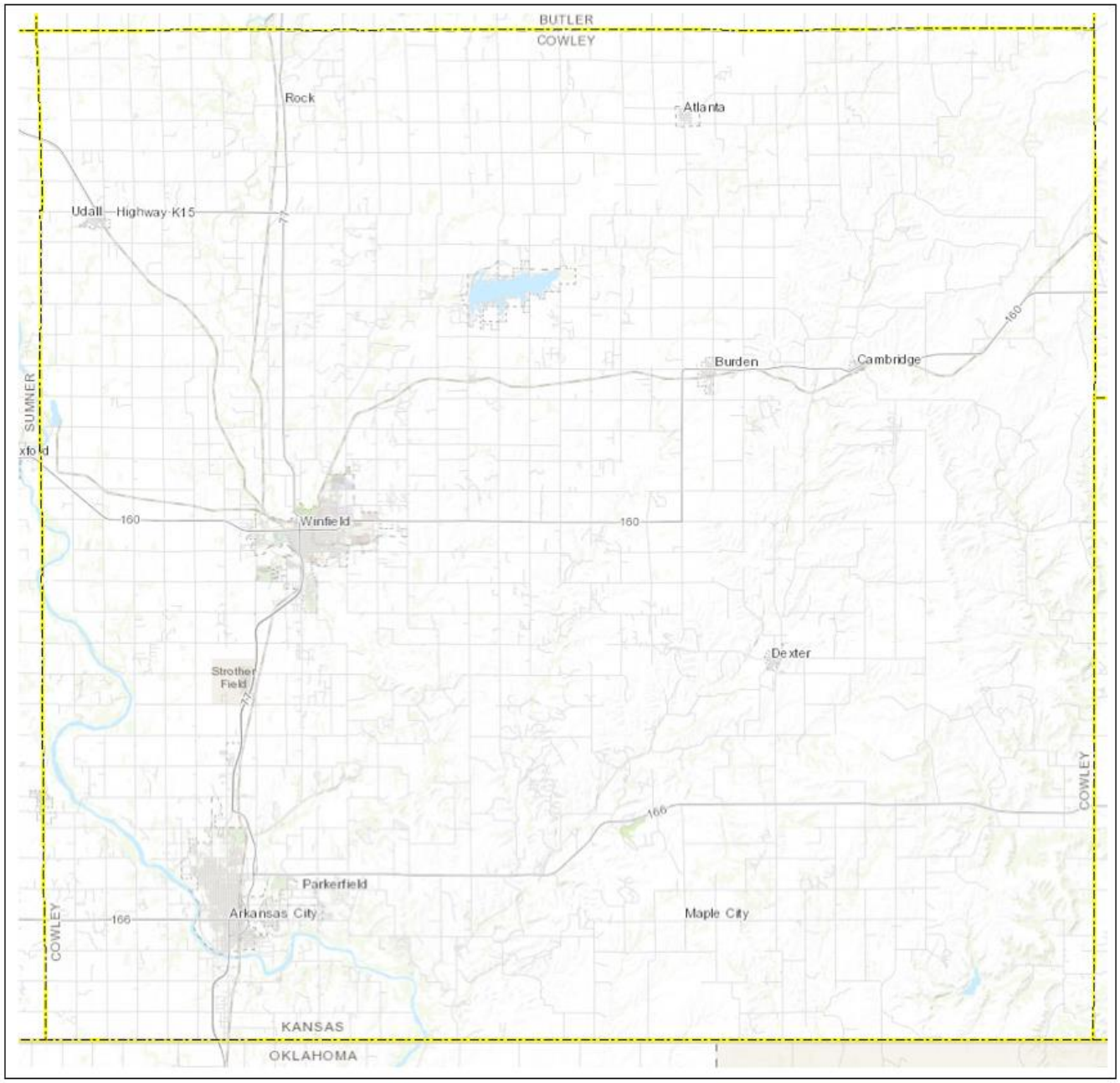
The following maps, provided by the Kansas Department of Transportation, provide county level detail**:**

Map 2: Butler County



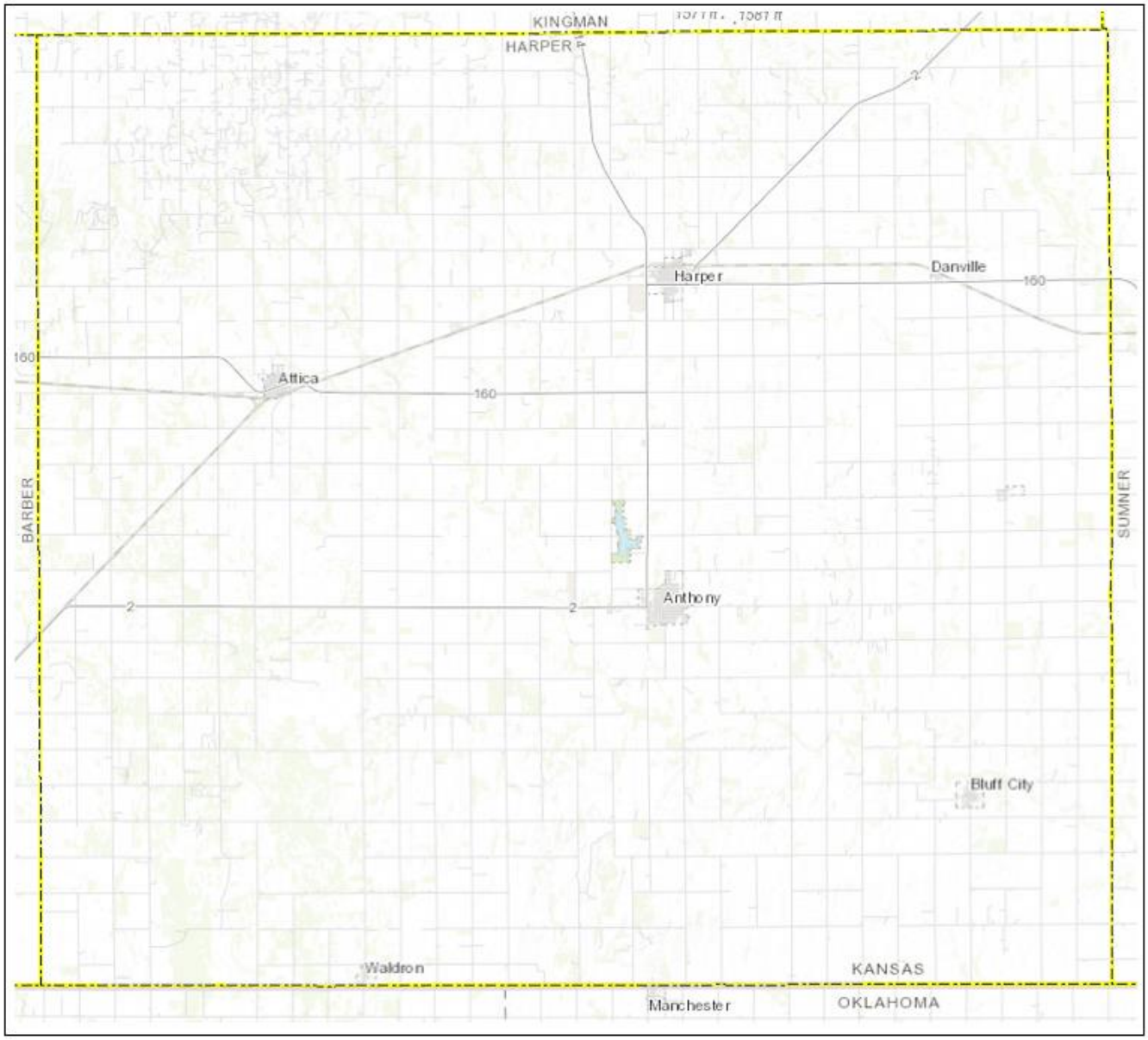
Source: Kansas Department of Transportation

Map 3: Cowley County



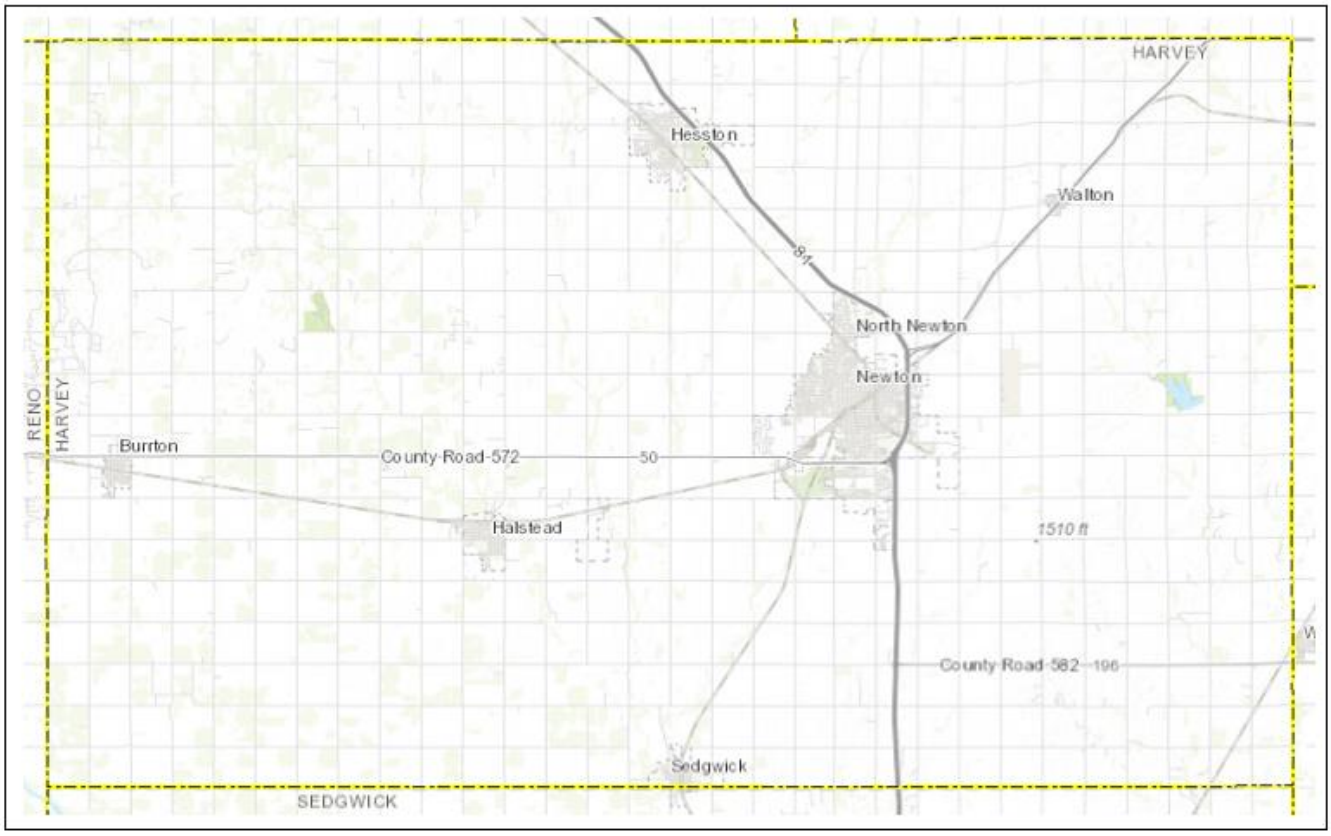
Source: Kansas Department of Transportation

Map 4: Harper County



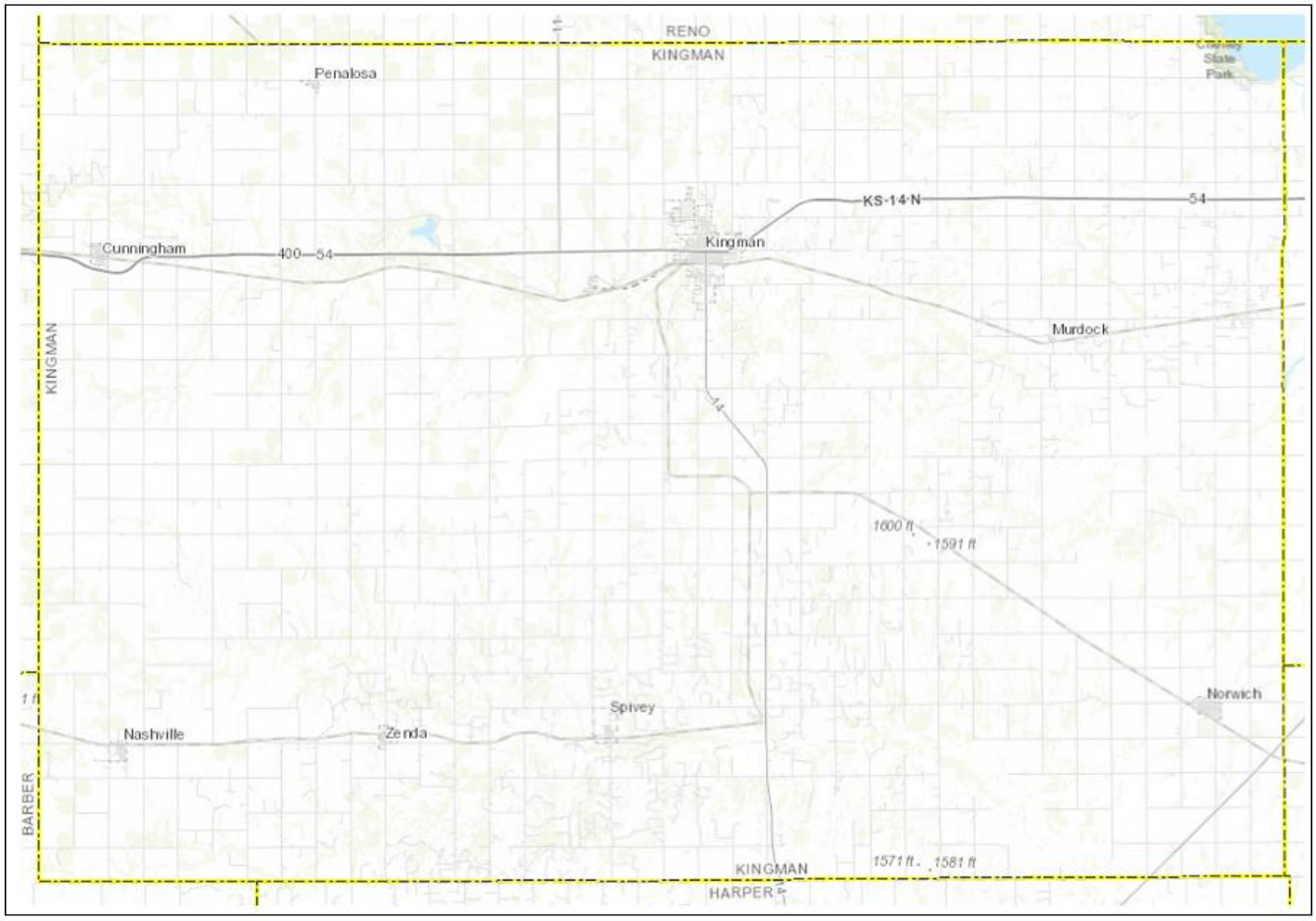
Source: Kansas Department of Transportation

Map 5: Harvey County



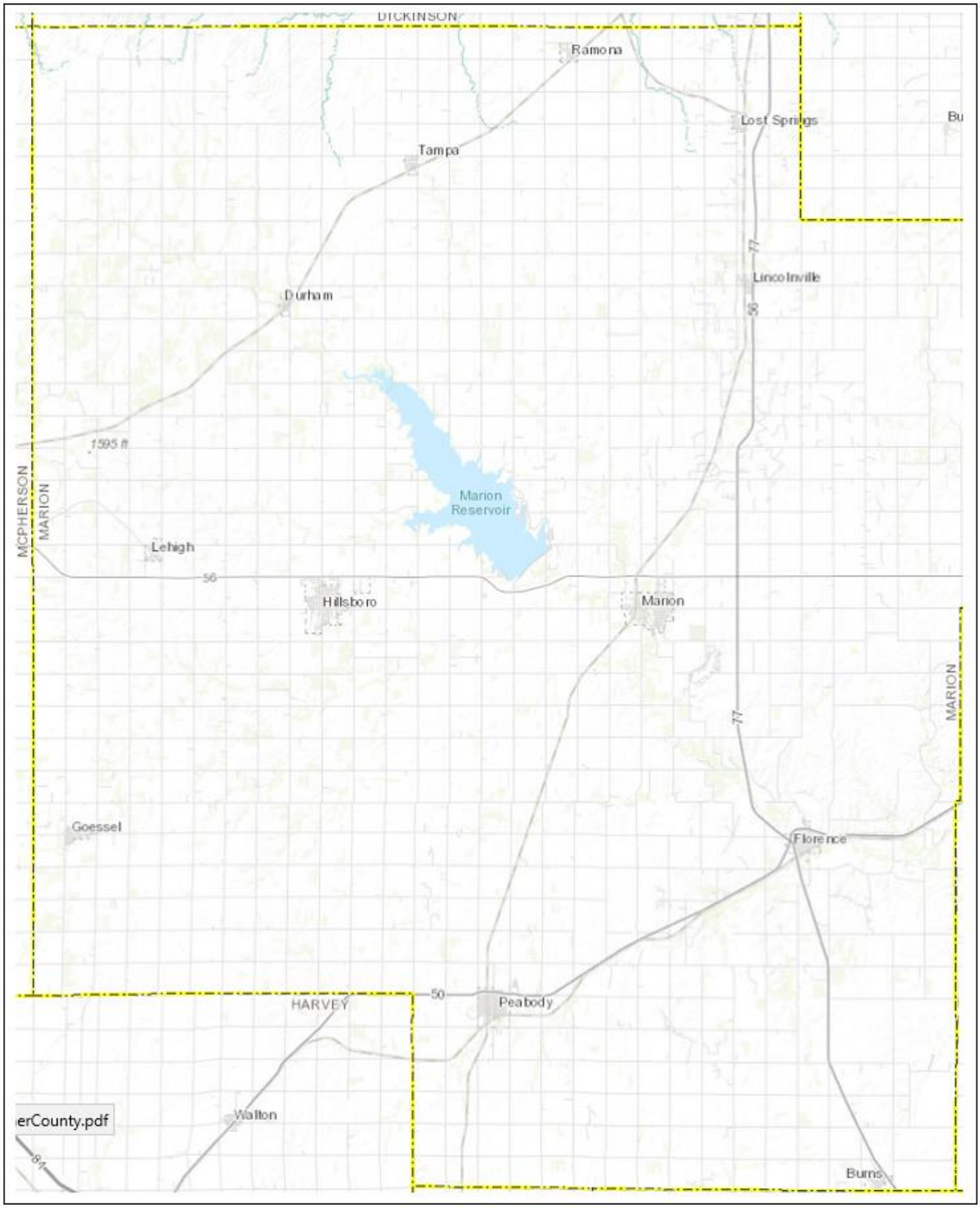
Source: Kansas Department of Transportation

Map 6: Kingman County



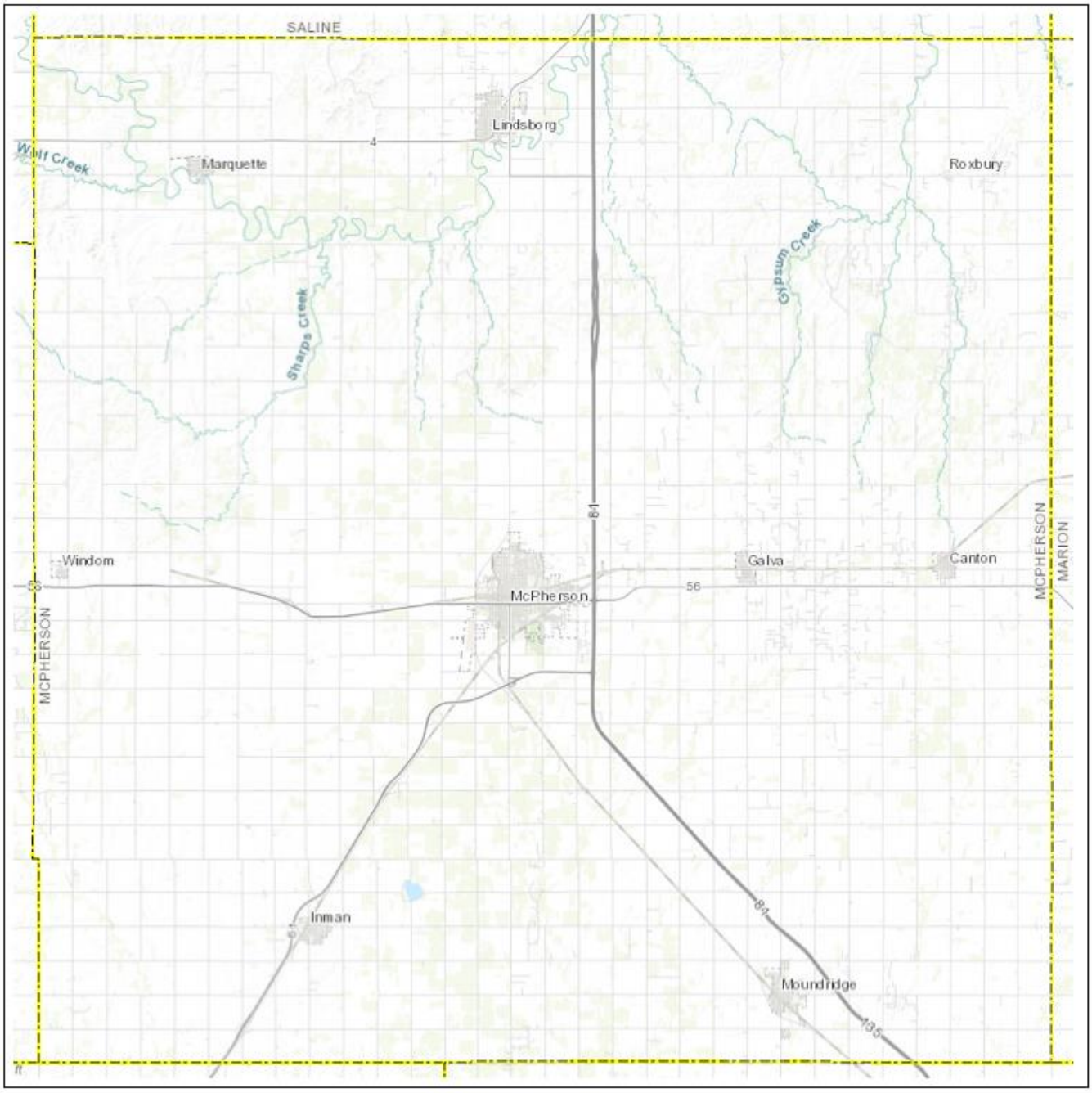
Source: Kansas Department of Transportation

Map 7: Marion County



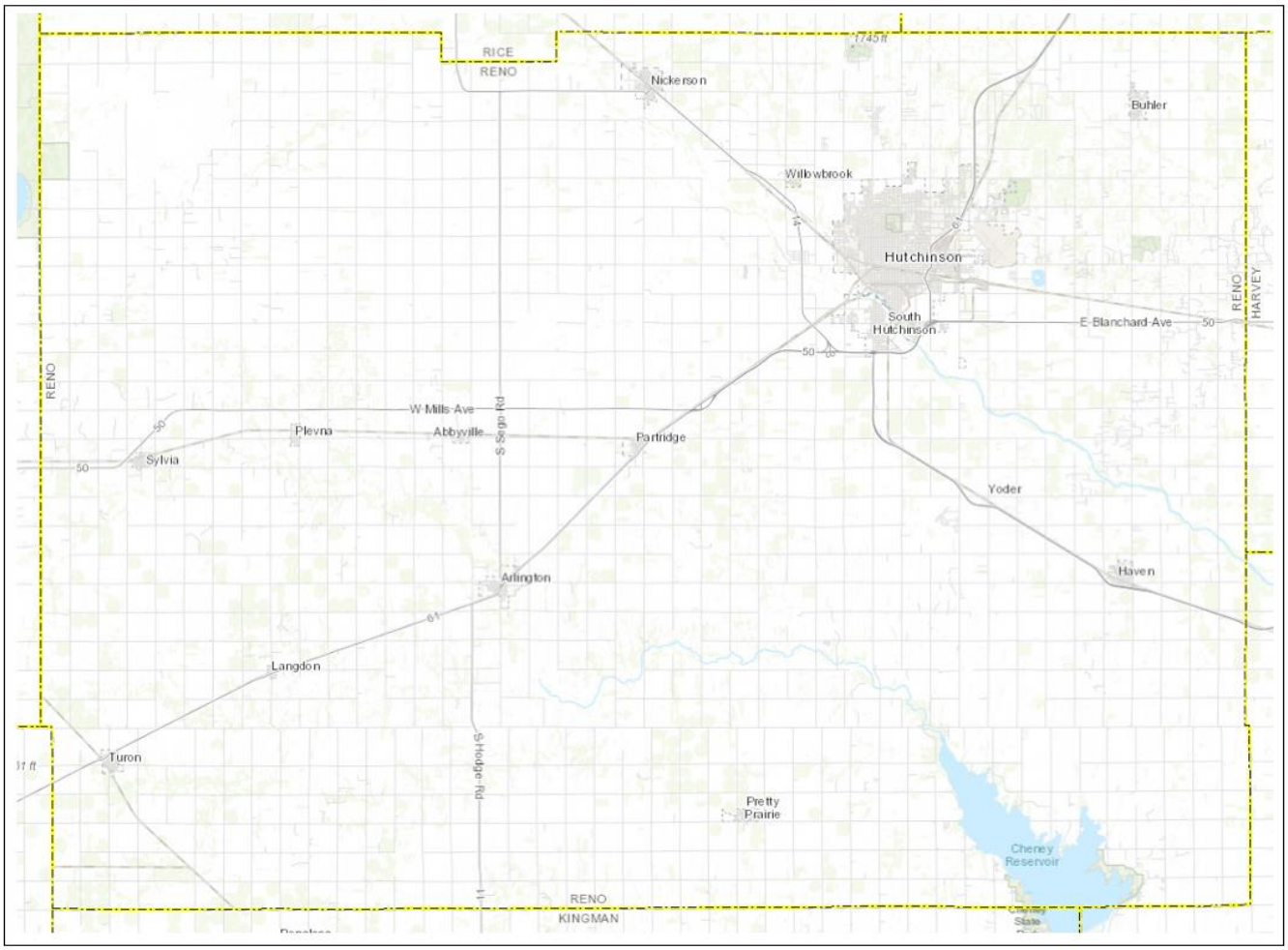
Source: Kansas Department of Transportation

Map 8: McPherson County



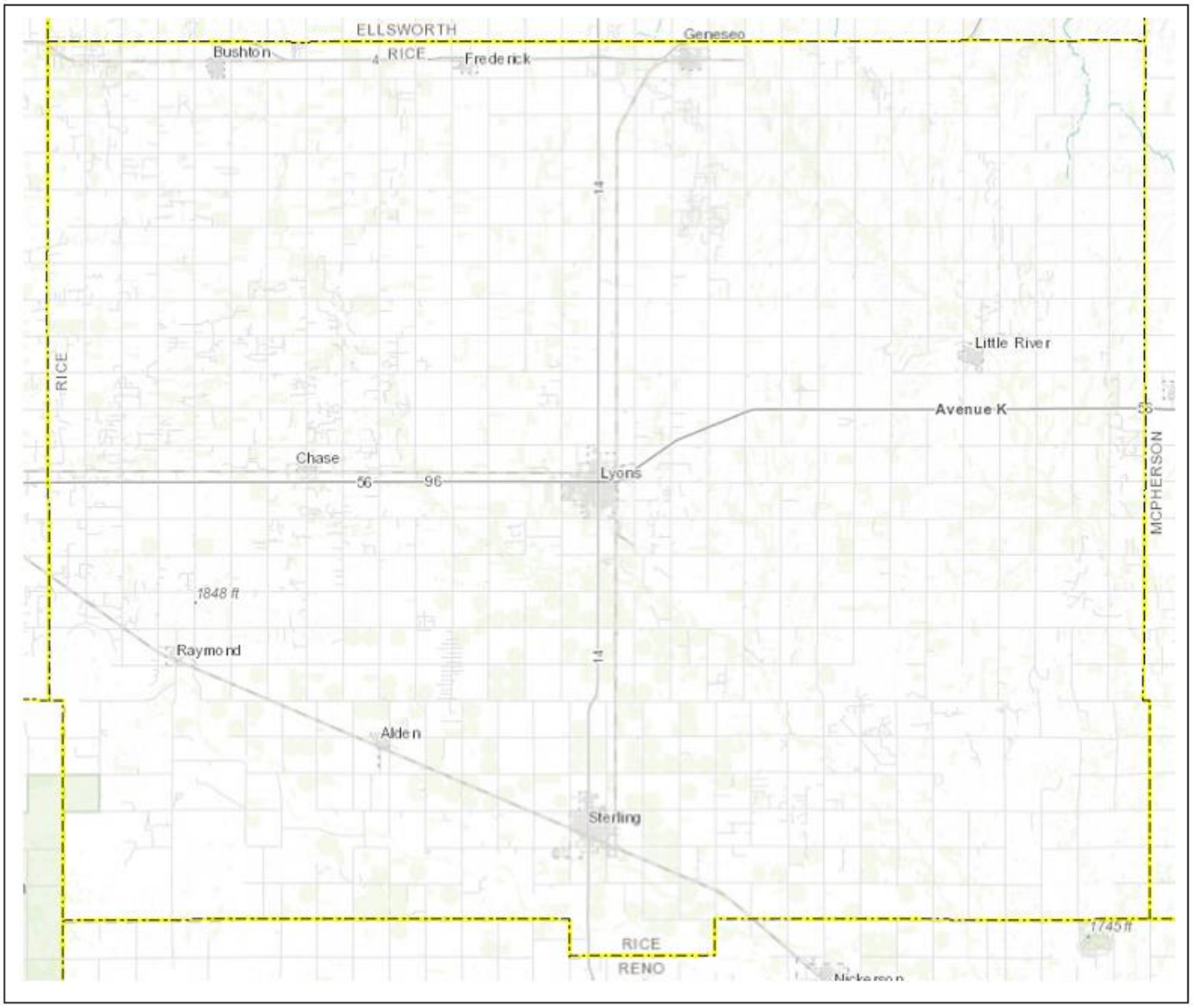
Source: Kansas Department of Transportation

Map 9: Reno County



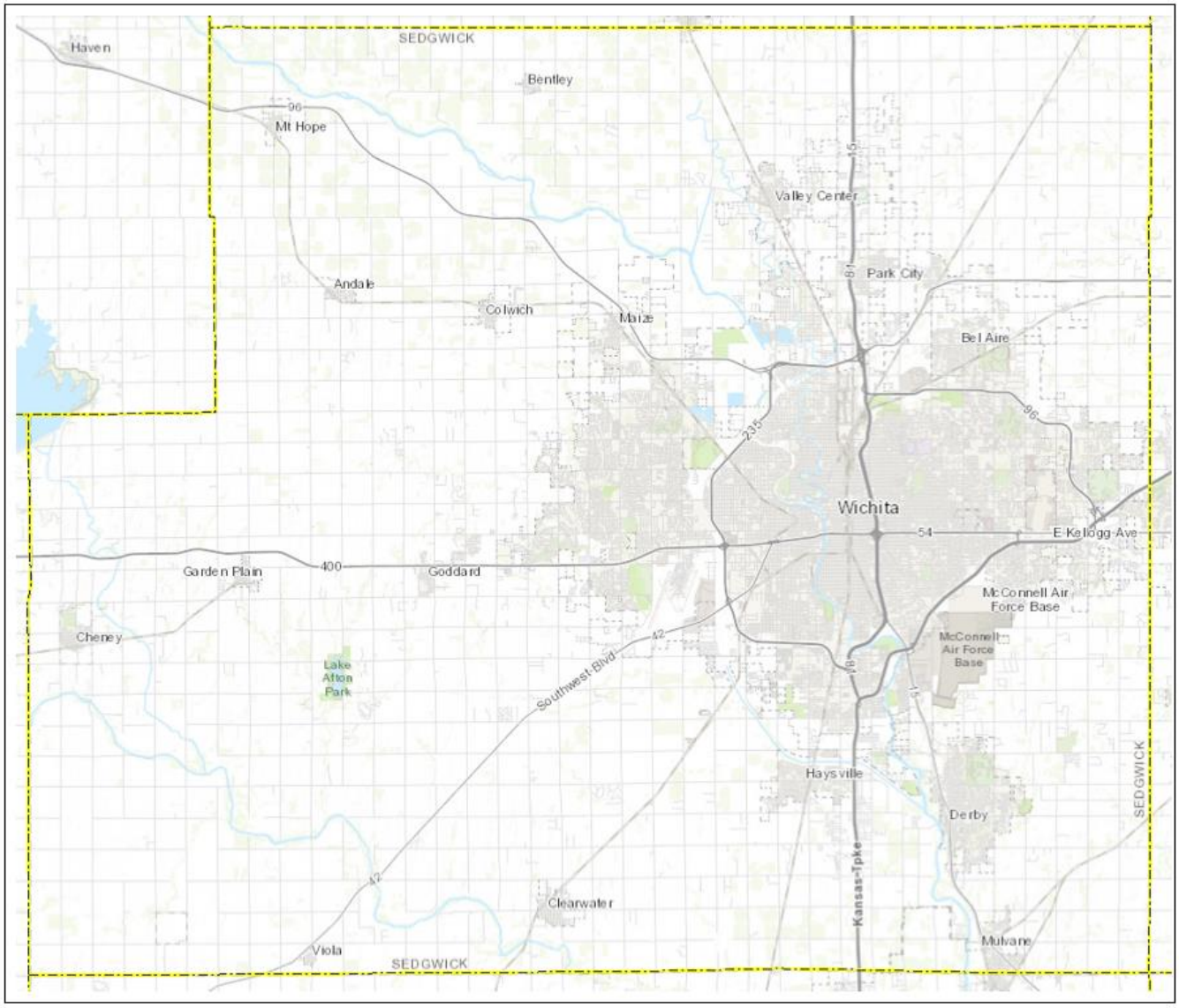
Source: Kansas Department of Transportation

Map 10: Rice County



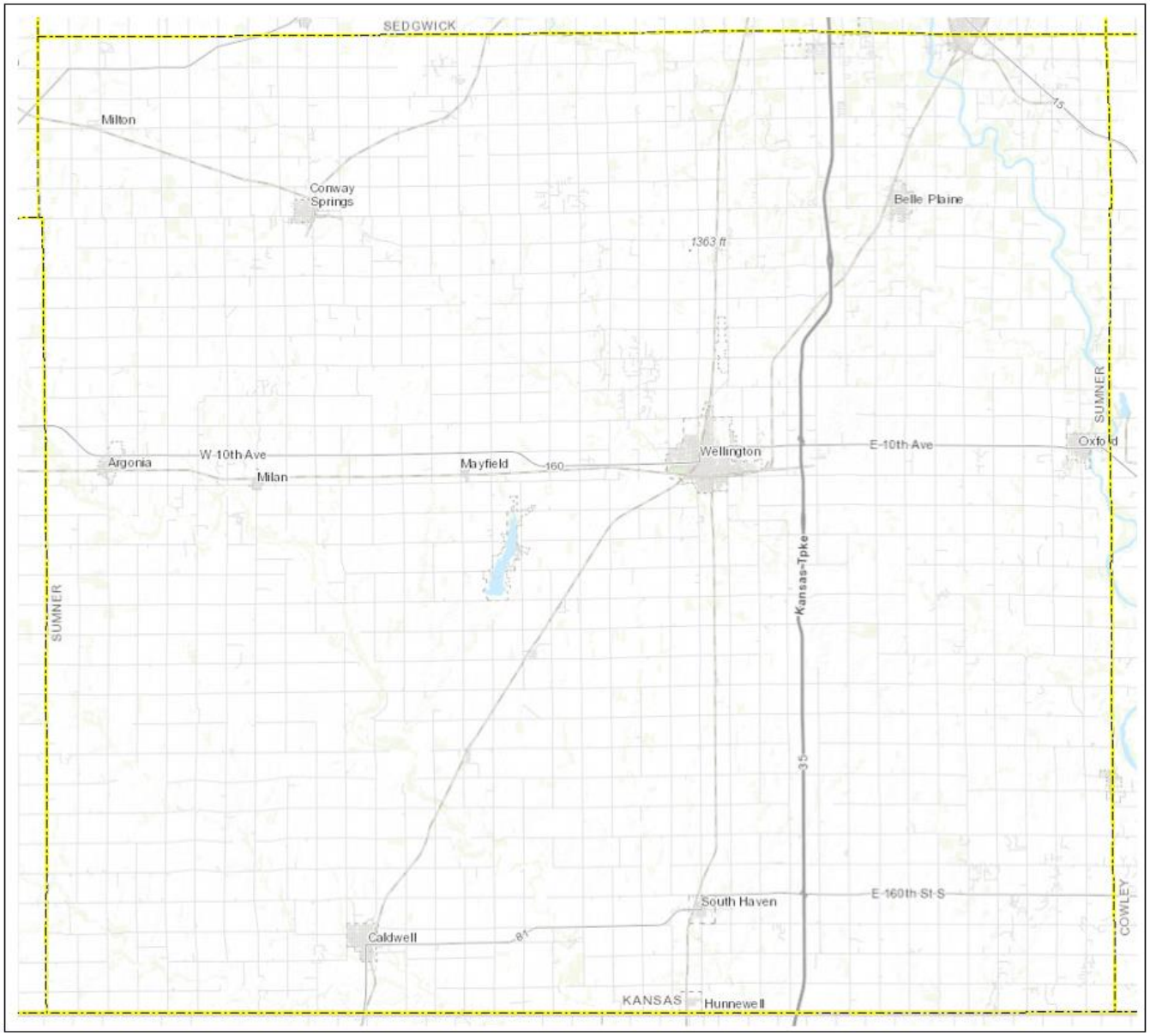
Source: Kansas Department of Transportation

Map 11: Sedgwick County



Source: Kansas Department of Transportation

Map 12: Sumner County



Source: Kansas Department of Transportation

3.3 Regional Population Trends

Kansas Region G has seen population growth in two counties, Butler and Sedgwick, and declining populations in the remaining counties over the 20-year period from 2000 to 2020, as indicated by data collected from the United State Census Bureau. The following table, and associated chart, presents population data for the 11 Kansas Region G counties.

Table 3: Kansas Region G Population Data

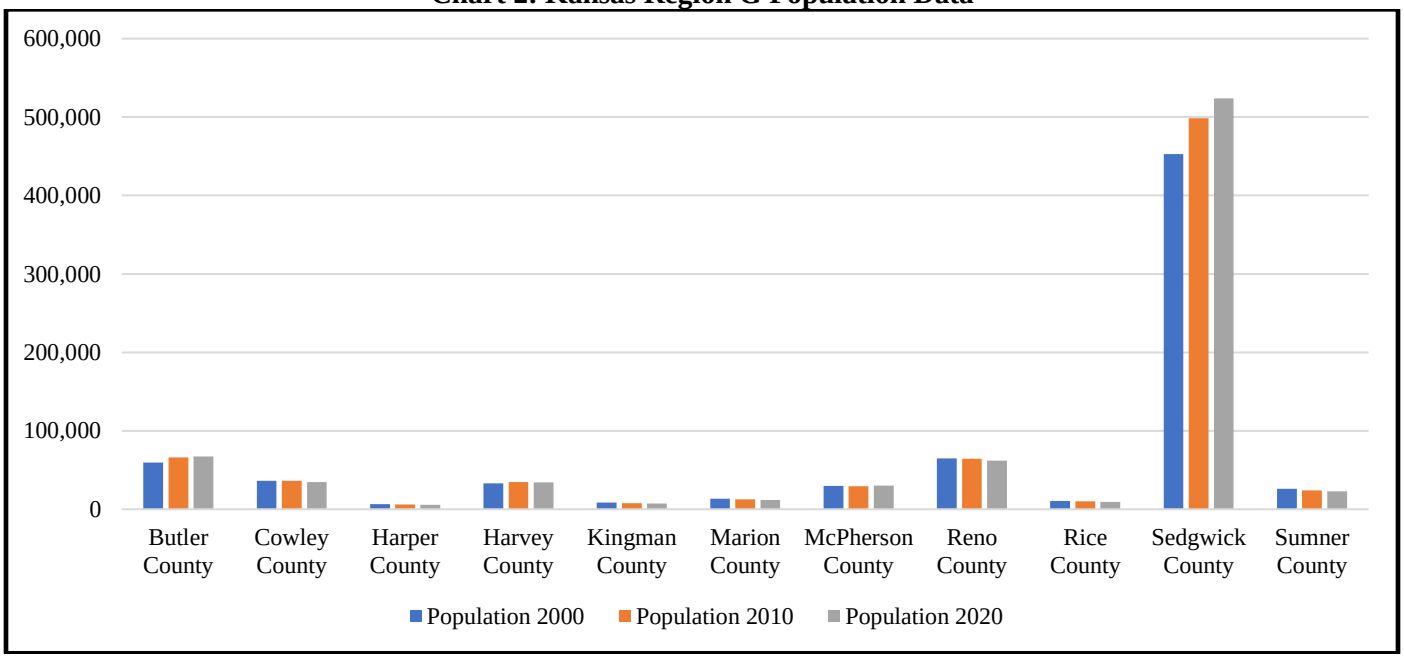
County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Butler County	59,482	65,880	67,380	13.3%	1,447	47
Cowley County	36,291	36,311	34,539	-4.8%	1,132	31
Harper County	6,536	6,034	5,485	-16.1%	803	7
Harvey County	32,869	34,684	34,024	3.5%	541	63
Kingman County	8,673	7,858	7,470	-13.9%	867	9
Marion County	13,361	12,660	11,823	-11.5%	954	12

Table 3: Kansas Region G Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
McPherson County	29,554	29,180	30,233	2.3%	901	34
Reno County	64,790	64,511	61,898	-4.5%	1,272	49
Rice County	10,761	10,083	9,427	-12.4%	728	13
Sedgwick County	452,869	498,365	523,828	15.7%	1,009	519
Sumner County	25,946	24,132	22,832	-12.0%	1,185	19

Source: US Census Bureau

Chart 2: Kansas Region G Population Data



Source: US Census Bureau

The following tables present population data on a city level, broken down by county.

Table 4: Butler Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Butler County	59,482	65,880	67,380	13.3%	1,447	47
Andover	6,698	11,791	14,892	122.3%	10.0	1,489
Augusta	8,423	9,274	9,256	9.9%	4.8	1,949
Benton	827	880	227	-72.6%	1.4	163
Cassoday	130	129	113	-13.1%	0.4	290
Douglass	1,813	1,700	1,555	-14.2%	1.1	1,440
Elbing	218	229	226	3.7%	0.2	1,189
El Dorado	12,057	13,021	12,870	6.7%	8.9	1,443
Latham	164	139	96	-41.5%	0.3	384
Leon	645	704	669	3.7%	0.8	892
Potwin	457	449	421	-7.9%	0.2	1,754
Towanda	1,338	1,450	1,447	8.1%	1.1	1,365
Rose Hill	3,432	3,391	4,185	21.9%	2.2	1,902
Whitewater	653	718	661	1.2%	0.4	1,653

Source: US Census Bureau

Table 5: Cowley County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Cowley County	36,291	36,311	34,539	-4.8%	1,132	31
Arkansas City	11,963	12,415	11,974	0.1%	9.4	774
Atlanta	255	195	168	-34.1%	0.5	1,399
Burden	564	535	512	-9.2%	0.5	632
Cambridge	103	82	92	-10.7%	0.2	158
Dexter	364	278	224	-38.5%	0.3	1,060
Gueda Springs	212	185	158	-25.5%	0.4	1,760
Parkerfield	422	426	406	-3.8%	0.9	632
Udall	794	753	661	-16.8%	0.6	158
Winfield	12,206	12,301	11,777	-3.5%	12.9	1,060

Source: US Census Bureau

Table 6: Harper County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Harper County	6,536	6,034	5,485	-16.1%	803	7
Anthony	2,440	2,269	2,108	-13.6%	3.3	637
Attica	636	626	516	-18.9%	0.6	806
Bluff City	80	65	45	-43.8%	0.5	83
Danville	59	38	29	-50.8%	0.1	363
Harper	1,567	1,473	1,313	-16.2%	1.6	806
Freeport	6	5	5	-16.7%	0.2	25
Waldron	17	11	9	-47.1%	0.3	29

Source: US Census Bureau

Table 7: Harvey County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Harvey County	32,869	34,684	34,024	3.5%	541	63
Burrton	932	901	861	-7.6%	0.9	957
Halstead	1,873	2,085	2,179	16.3%	1.3	1,663
Hesston	3,509	3,709	3,505	-0.1%	3.9	899
Newton	17,190	19,132	18,602	8.2%	12.6	1,476
North Newton	1,522	1,759	1,814	19.2%	0.9	2,016
Sedgwick	1,537	1,695	1,603	4.3%	1.4	1,137
Walton	284	235	219	-22.9%	0.4	608

Source: US Census Bureau

Table 8: Kingman County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Kingman County	8,673	7,858	7,470	-13.9%	867	9
Cunningham	514	454	444	-13.6%	0.4	1,269
City of Kingman	3,387	3,177	3,105	-8.3%	3.5	880
Nashville	11	64	54	390.9%	0.2	245
Norwich	551	491	444	-19.4%	0.5	965
Penalosa	27	17	18	-33.3%	0.1	257

Table 8: Kingman County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Spivey	80	78	61	-23.8%	0.5	117
Zenda	123	90	72	-41.5%	0.2	313

Source: US Census Bureau

Table 9: Marion County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Marion County	13,361	12,660	11,823	-11.5%	954	12
Burns	268	228	234	-12.7%	0.4	669
Durham	114	112	89	-21.9%	0.2	445
Florence	671	465	394	-41.3%	0.8	512
Goessel	565	539	556	-1.6%	0.4	1,589
Hillsboro	2,854	2,993	2,732	-4.3%	2.6	1,063
Lehigh	215	175	161	-25.1%	0.3	537
Lincolnville	225	203	168	-25.3%	0.2	764
City of Marion	2,110	1,927	1,922	-8.9%	3.0	643
Peabody	1,384	1,210	937	-32.3%	1.3	699
Tampa	144	112	105	-27.1%	0.2	583

Source: US Census Bureau

Table 10: McPherson County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
McPherson County	29,554	29,180	30,233	2.3%	901	34
Canton	829	748	685	-17.4%	0.5	1,370
Galva	701	870	834	19.0%	0.5	1,738
Inman	1,142	1,337	1,341	17.4%	0.6	2,273
Lindsborg	3,321	3,458	3,776	13.7%	1.7	2,234
Marquette	542	641	599	10.5%	0.4	1,361
City of McPherson	13,770	13,155	14,082	2.3%	7.2	1,948
Moundridge	1,593	1,737	1,974	23.9%	1.4	1,400
Windom	137	130	85	-38.0%	0.3	340

Source: US Census Bureau

Table 11: Reno County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Reno County	64,790	64,511	61,898	-4.5%	1,272	49
Abbyville	128	87	83	-35.2%	0.2	437
Arlington	459	437	435	-5.2%	1.1	407
Buhler	1,358	1,327	1,325	-2.4%	0.7	1,840
Haven	1,175	1,237	1,170	-0.4%	0.6	1,857
The Highlands	-	-	516	-	1.0	516
Hutchinson	40,787	42,080	40,006	-1.9%	22.8	1,759
Langdon	72	42	39	-45.8%	0.1	325
Nickerson	1,194	1,070	1,058	-11.4%	1.4	784

Table 11: Reno County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Partridge	259	248	209	-19.3%	0.3	697
Plevna	99	98	85	-14.1%	0.2	370
Pretty Prairie	615	680	660	7.3%	0.6	1,082
South Hutchinson	2,539	2,457	2,521	-0.7%	2.9	872
Sylvia	297	218	215	-27.6%	0.3	741
Turon	436	387	309	-29.1%	0.5	672
Willowbrook	36	87	71	97.2%	0.3	229

Source: US Census Bureau

Table 12: Rice County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Rice County	10,761	10,083	9,427	-12.4%	728	13
Alden	168	148	122	-27.4%	0.2	642
Bushton	314	279	203	-35.4%	0.2	883
Chase	490	477	396	-19.2%	0.3	1,366
Geneseo	272	267	236	-13.2%	0.6	407
Little River	536	557	472	-11.9%	0.4	1,073
Lyons	3,732	3,739	3,611	-3.2%	2.4	1,530
Raymond	95	79	85	-10.5%	0.3	266
Sterling	2,642	2,328	2,248	-14.9%	1.7	1,315

Source: US Census Bureau

Table 13: Sedgwick County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Sedgwick County	452,869	498,365	523,828	15.7%	1,009	519
Andale	766	928	941	22.8%	0.6	1,651
Bel Aire	5,836	6,769	8,262	41.6%	6.9	1,204
Bentley	368	530	560	52.2%	0.3	1,867
Cheney	1,783	2,094	2,181	22.3%	2.0	1,096
Clearwater	2,178	2,481	2,653	21.8%	1.9	1,419
Colwich	1,229	1,327	1,455	18.4%	1.3	1,094
Derby	17,807	22,158	25,625	43.9%	9.6	2,669
Eastborough	826	773	756	-8.5%	0.4	1,890
Garden Plain	797	849	948	18.9%	0.6	1,580
Goddard	2,037	4,344	5,084	149.6%	4.5	1,132
Haysville	8,502	10,826	11,262	32.5%	4.6	2,438
Kechi	1,038	1,909	2,217	113.6%	6.0	368
Maize	1,868	3,402	5,735	207.0%	8.8	649
Mount Hope	830	813	806	-2.9%	1.5	545
Mulvane	5,155	6,111	6,286	21.9%	4.5	1,391
Park City	151	126	112	-25.8%	9.5	12
City of Sedgwick	1,537	1,695	1,603	4.3%	1.4	1,137
Valley Center	4,883	6,822	7,340	50.3%	7.0	1,056
Viola	211	130	115	-45.5%	0.2	719
Wichita	344,284	382,368	397,592	15.5%	163.6	2,430

Source: US Census Bureau

Table 14: Sumner County Population Data

County	Population			Percentage Population Change 2000-2020	Total Land Area (Sq. Mi.)	Population Density
	2000	2010	2020			
Sumner County	25,946	24,132	22,832	-12.0%	1,185	19
Argonia	534	501	456	-14.6%	0.7	691
Belle Plaine	1,708	1,681	1,467	-14.1%	0.9	1,612
Caldwell	1,284	1,068	1,025	-20.2%	1.1	940
Geuda Springs	212	185	158	-25.5%	0.4	451
Mulvane	5,155	6,111	6,286	21.9%	4.5	1,391
Oxford	1,173	1,049	1,048	-10.7%	0.8	1,263
South Haven	390	363	324	-16.9%	0.8	410
Wellington	8,647	8,172	7,715	-10.8%	8.2	942

Source: US Census Bureau

3.4 Vulnerable Population Data

As a subset of the population data, Kansas Region G has socially vulnerable and at-risk populations, populations that may have difficulty with medical issues, poverty, extremes in age, and communications due to language barriers. Several principles may be considered when discussing potentially at-risk populations, including:

- Not all people who are considered at risk are at risk
- Outward appearance does not necessarily mark a person as at risk
- The hazard event will, in many cases, affect at risk population in differing ways

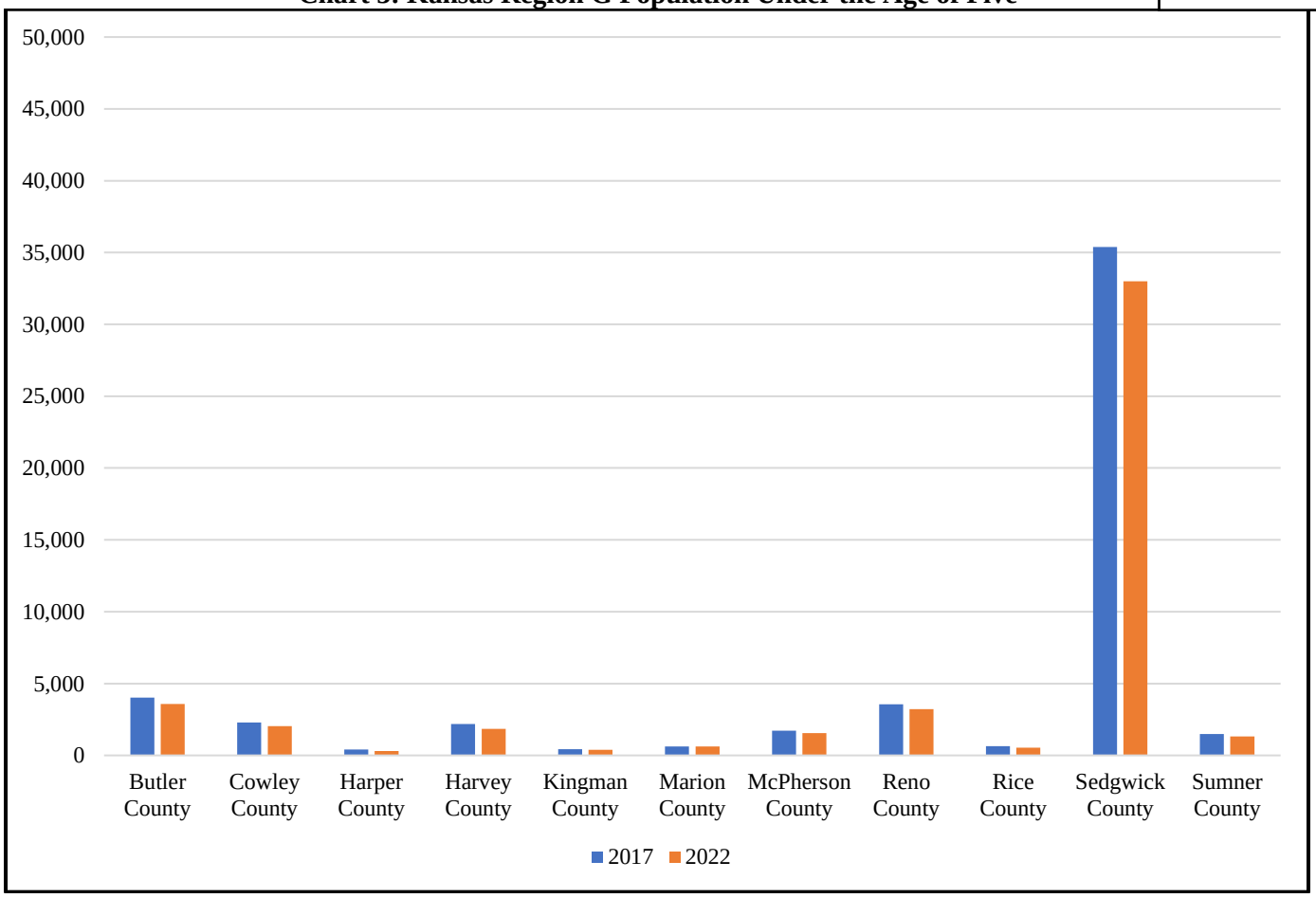
The National Response Framework defines at risk populations as "populations whose members may have additional needs before, during, and after an incident in functional areas, including but not limited to: maintaining independence, communication, transportation, supervision, and medical care." The following tables, and associated charts, present information on potentially at risk populations within Kansas Region G on a county level for the five-year period 2017 to 2022 (latest available data).

Table 15: Kansas Region G Population Under the Age of Five

Jurisdiction	2017	2022
Butler County	4,019	3,571
Cowley County	2,288	2,038
Harper County	416	313
Harvey County	2,185	1,837
Kingman County	432	388
Marion County	620	615
McPherson County	1,722	1,542
Reno County	3,548	3,219
Rice County	645	528
Sedgwick County	35,384	33,001
Sumner County	1,496	1,324

Source: US Census Bureau

Chart 3: Kansas Region G Population Under the Age of Five



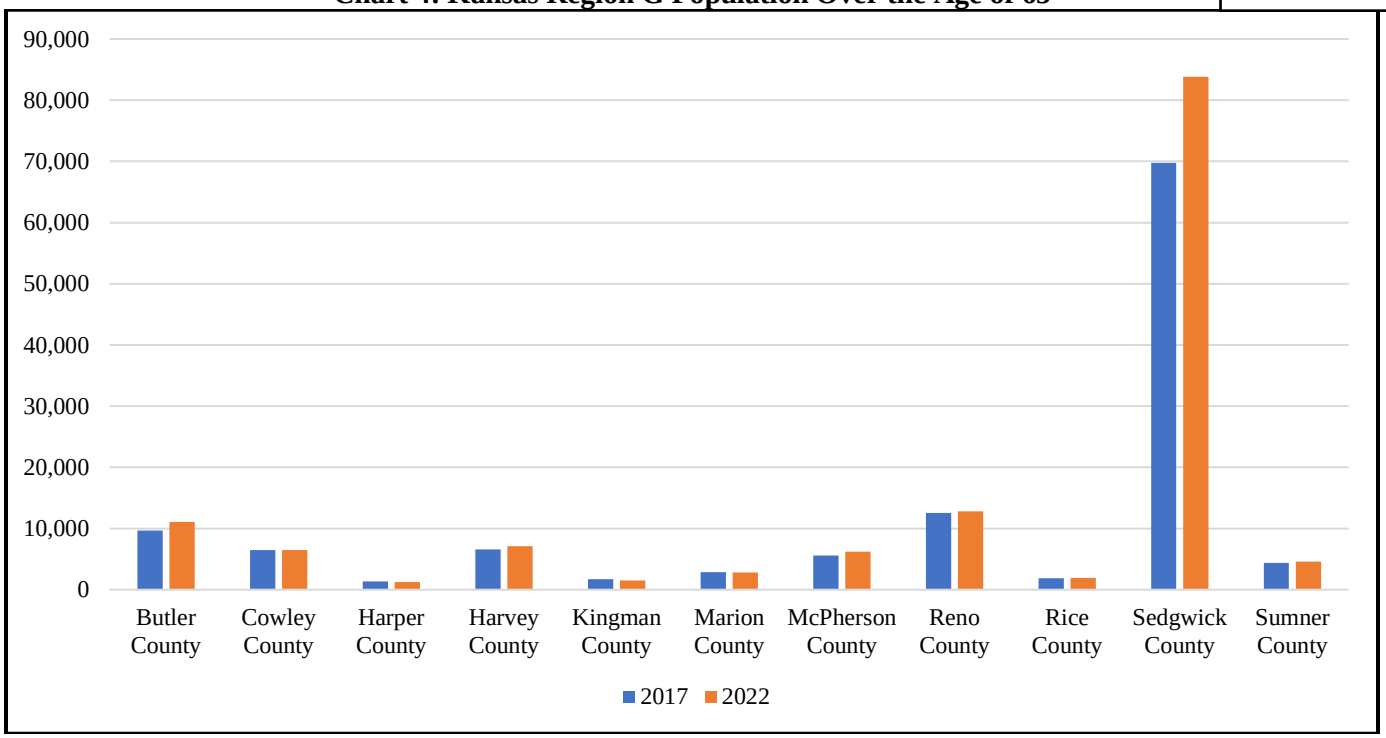
Source: US Census Bureau

Table 16: Kansas Region G Population Over the Age of 65

Jurisdiction	2017	2022
Butler County	9,684	11,050
Cowley County	6,463	6,459
Harper County	1,334	1,240
Harvey County	6,590	7,077
Kingman County	1,721	1,509
Marion County	2,886	2,814
McPherson County	5,603	6,228
Reno County	12,515	12,813
Rice County	1,865	1,933
Sedgwick County	69,771	83,812
Sumner County	4,368	4,612

Source: US Census Bureau

Chart 4: Kansas Region G Population Over the Age of 65



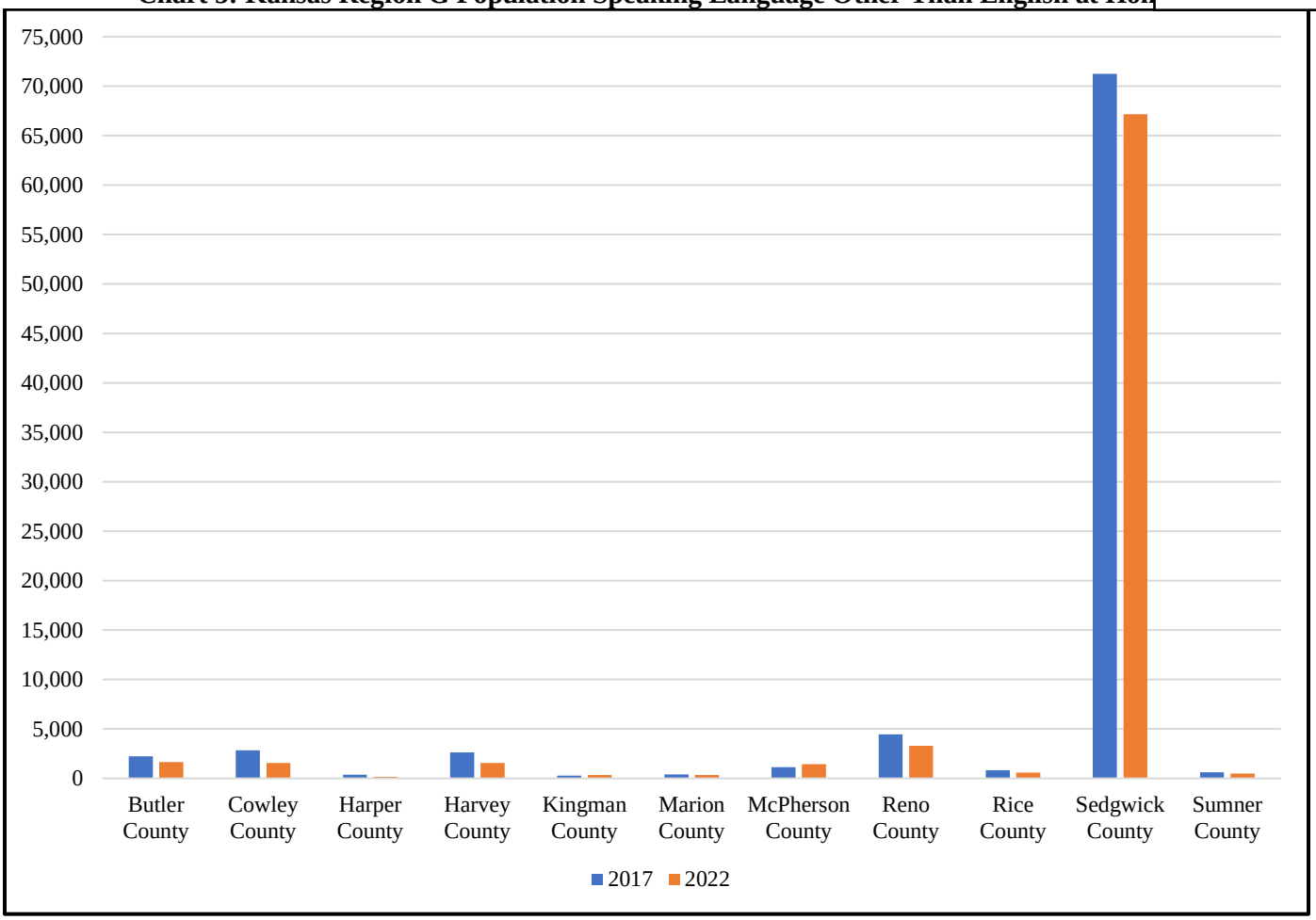
Source: US Census Bureau

Table 17: Kansas Region G Population Speaking Language Other Than English at Home

Jurisdiction	2017	2022
Butler County	2,240	1,637
Cowley County	2,832	1,563
Harper County	380	146
Harvey County	2,636	1,547
Kingman County	291	343
Marion County	405	335
McPherson County	1,138	1,441
Reno County	4,451	3,290
Rice County	827	586
Sedgwick County	71,266	67,180
Sumner County	603	507

Source: US Census Bureau

Chart 5: Kansas Region G Population Speaking Language Other Than English at Hon



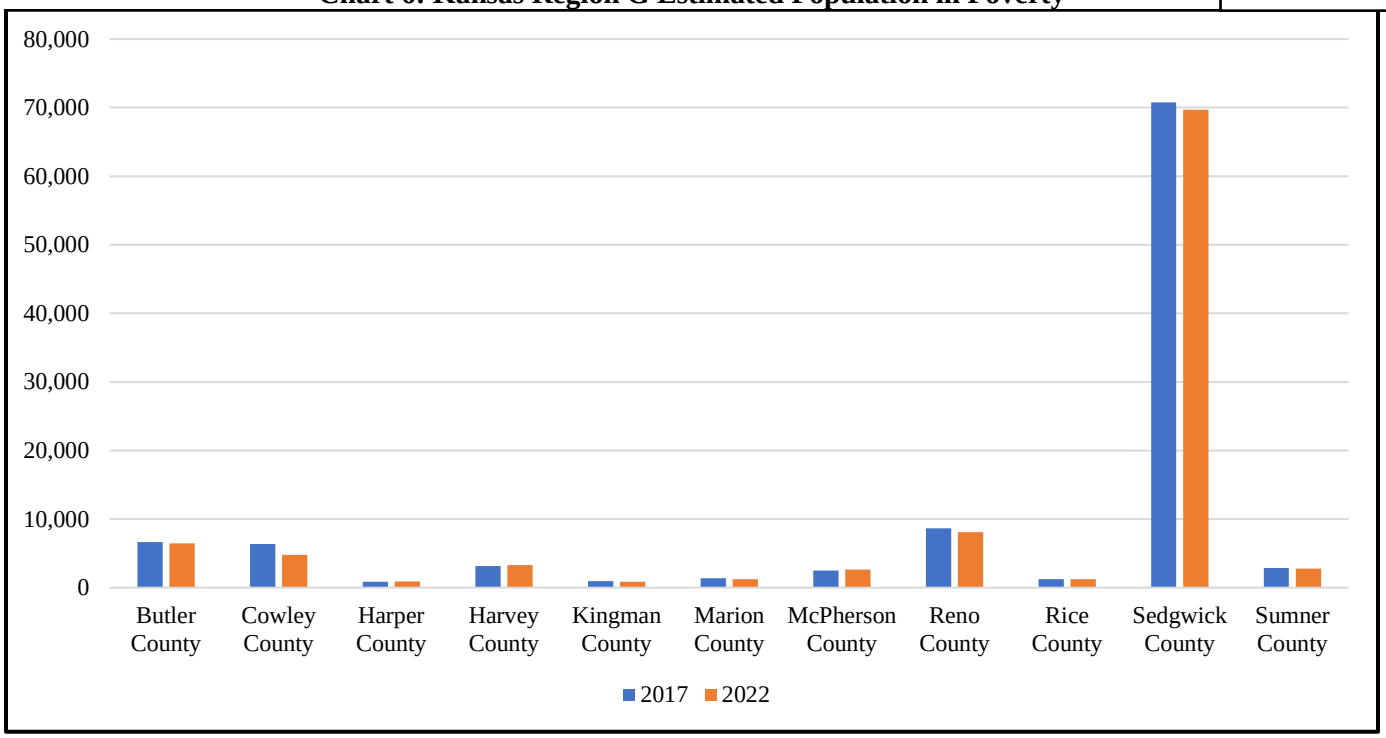
Source: US Census Bureau

Table 18: Kansas Region G Estimated Population in Poverty

Jurisdiction	2017	2022
Butler County	6,654	6,468
Cowley County	6,391	4,801
Harper County	875	894
Harvey County	3,156	3,266
Kingman County	951	874
Marion County	1,380	1,253
McPherson County	2,480	2,630
Reno County	8,644	8,109
Rice County	1,240	1,216
Sedgwick County	70,768	69,669
Sumner County	2,848	2,786

Source: US Census Bureau

Chart 6: Kansas Region G Estimated Population in Poverty



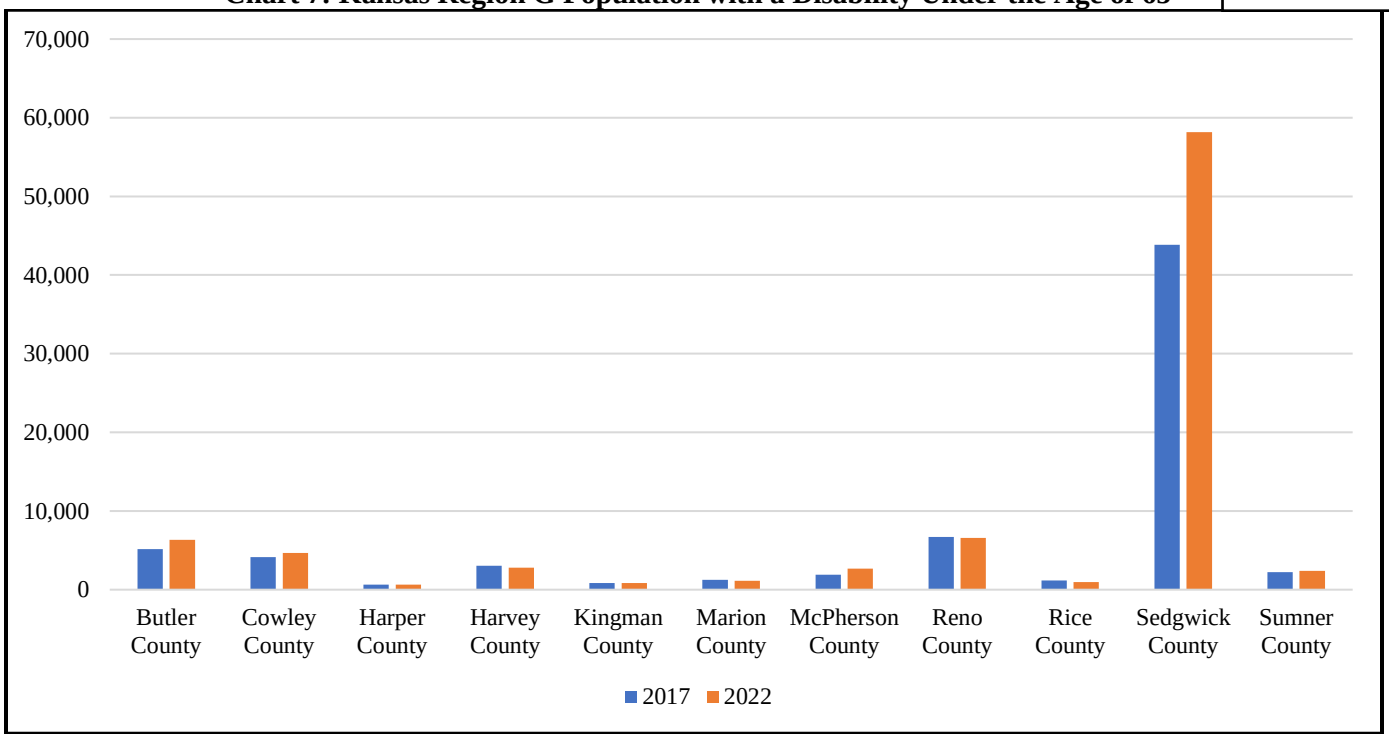
Source: US Census Bureau

Table 19: Kansas Region G Population with a Disability Under the Age of 65

Jurisdiction	2017	2022
Butler County	5,139	6,334
Cowley County	4,139	4,663
Harper County	640	653
Harvey County	3,052	2,790
Kingman County	841	852
Marion County	1,253	1,123
McPherson County	1,897	2,691
Reno County	6,709	6,561
Rice County	1,160	980
Sedgwick County	43,856	58,145
Sumner County	2,244	2,397

Source: US Census Bureau

Chart 7: Kansas Region G Population with a Disability Under the Age of 65

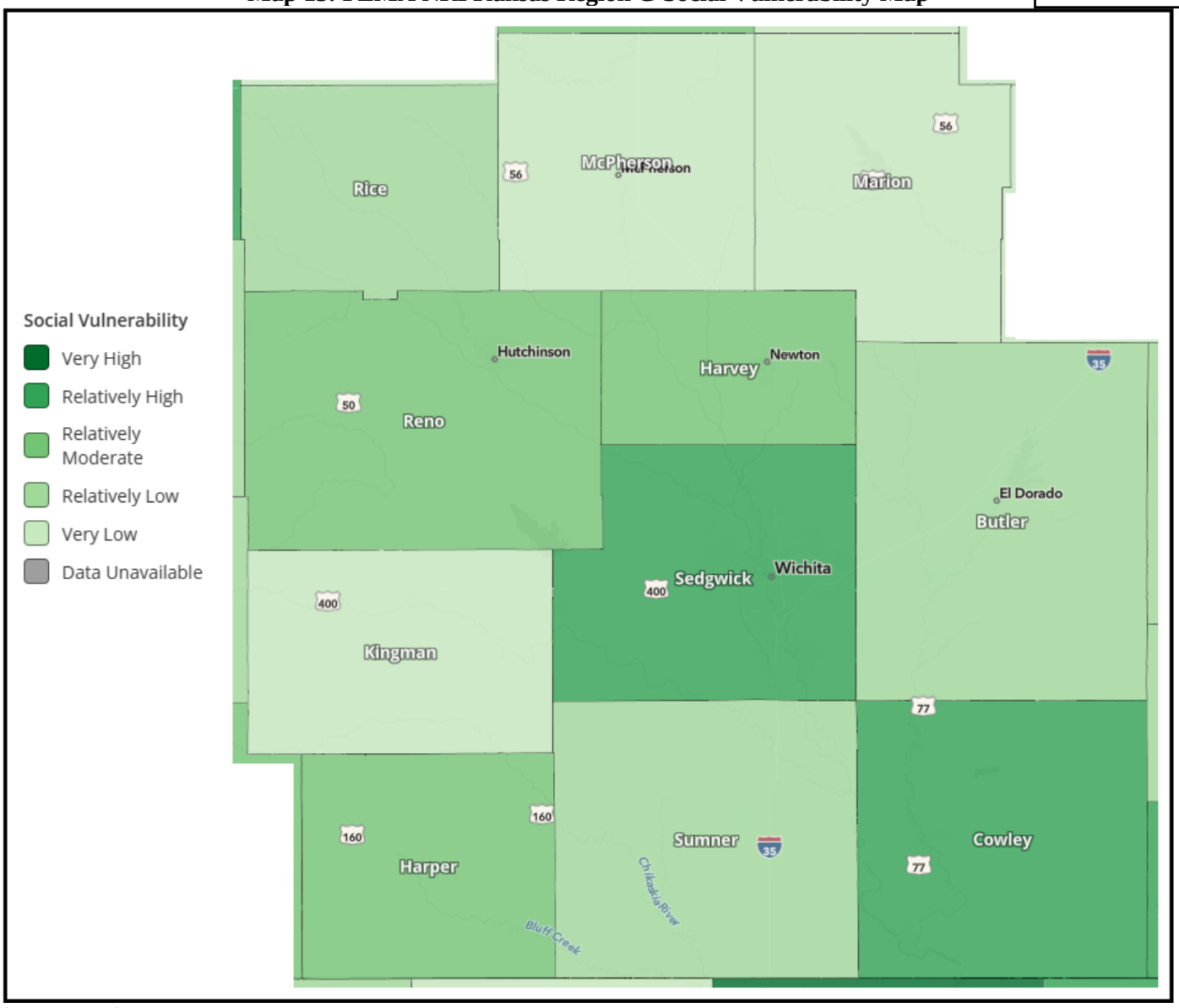


Source: US Census Bureau

Using data from the Centers for Disease Control and Prevention (CDC)/Agency for Toxic Substances and Disease Registry Social Vulnerability Index FEMA's NRI creates and maps a Social Vulnerability score. In this context, social vulnerability is the susceptibility of social groups to the adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihood. This score represents the relative level of a community's social vulnerability compared to all other communities at the same level. A qualitative rating that describes the community in comparison to all other communities at the same level, ranging from "Very Low" to "Very High" is used quantify Social Vulnerability. Census tracts with the social vulnerability score highest qualify for designation as a community disaster resilience zone. Census tracts designated as a community disaster resilience zone may receive special technical assistance, planning assistance, and a 90% federal funding match (as opposed to the standard 75% federal match) for mitigation projects.

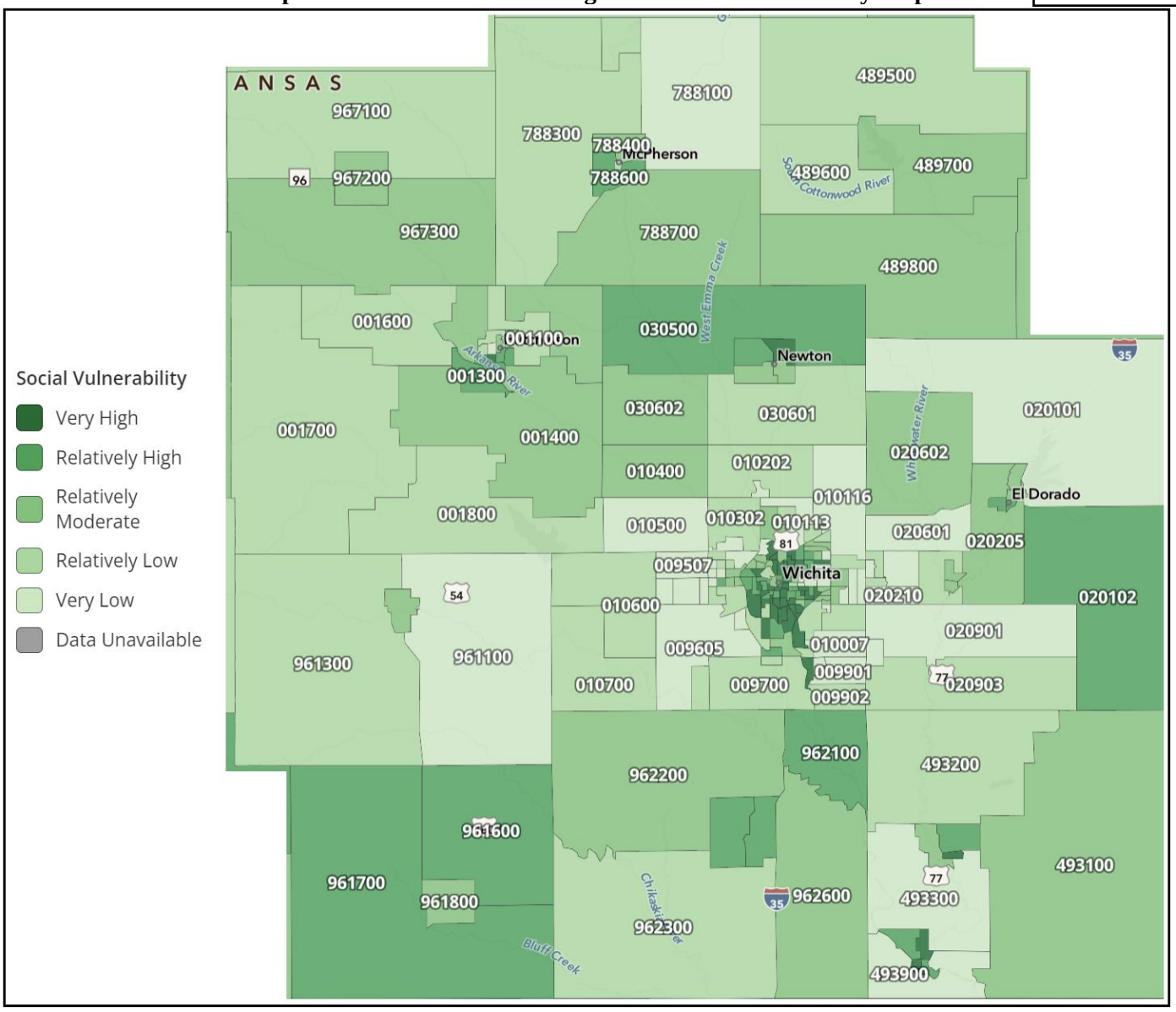
Data concerning social vulnerability is reported by county and by census tract, which can be analogous with jurisdictions. The following maps details the social vulnerability both county and census tract for Kansas Region G:

Map 13: FEMA NRI Kansas Region G Social Vulnerability Map



Source: FEMA

Map 14: FEMA NRI Kansas Region G Social Vulnerability Map



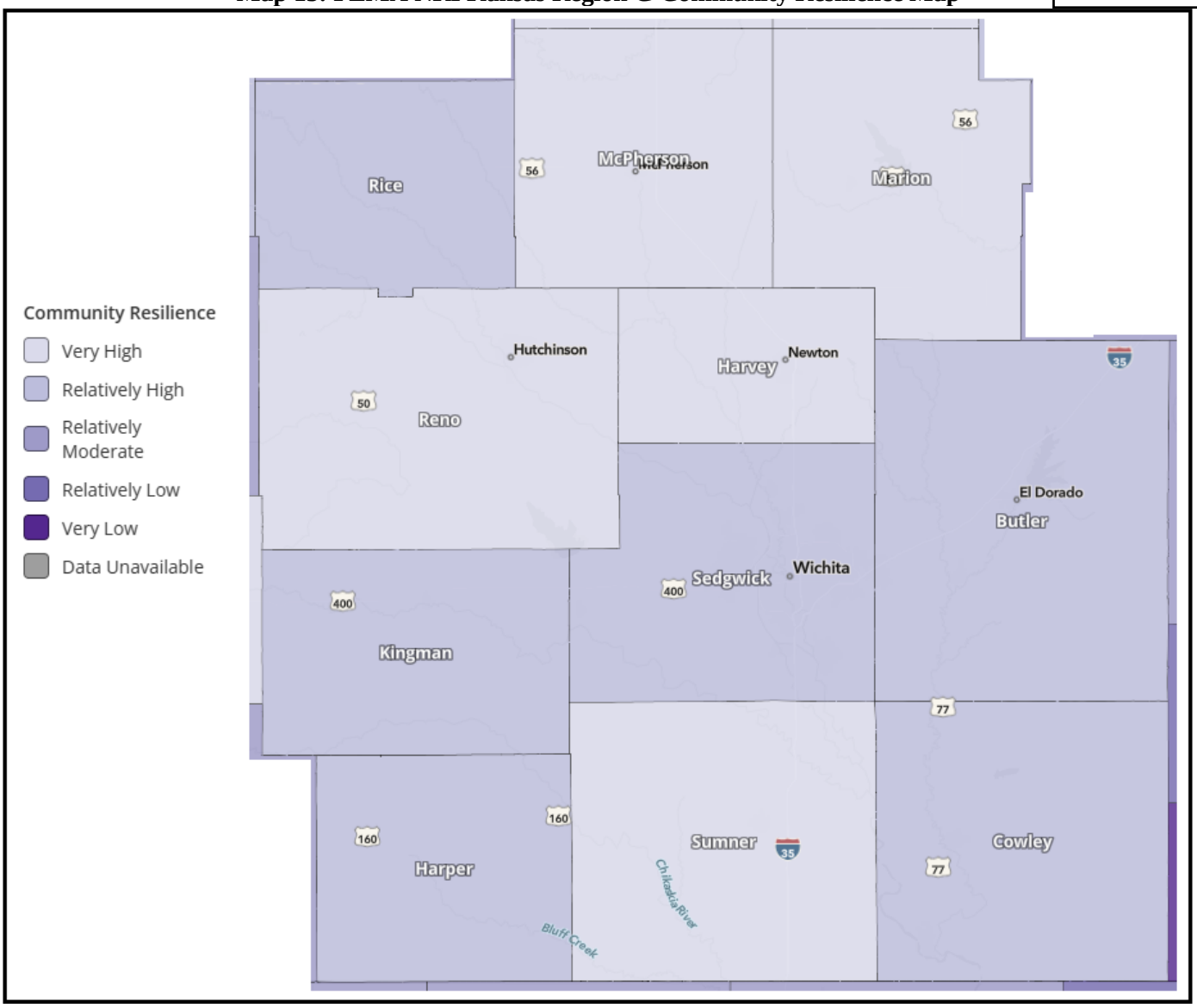
Source: FEMA

Augmenting these maps, full NRI census tract data is available in Appendix C detailing specific information for each census tract in each Kansas Region G county.

Community resilience is the ability of a community to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions. Factors that are considered when calculating community resilience include governance, infrastructure, education, and other capabilities that help communities deal with hazards on their own. As a consequence reduction risk component of the NRI, a community resilience score and rating represent the relative level of a community's resilience compared to all other communities at the same level. A community resilience score is inversely proportional to a community's risk.

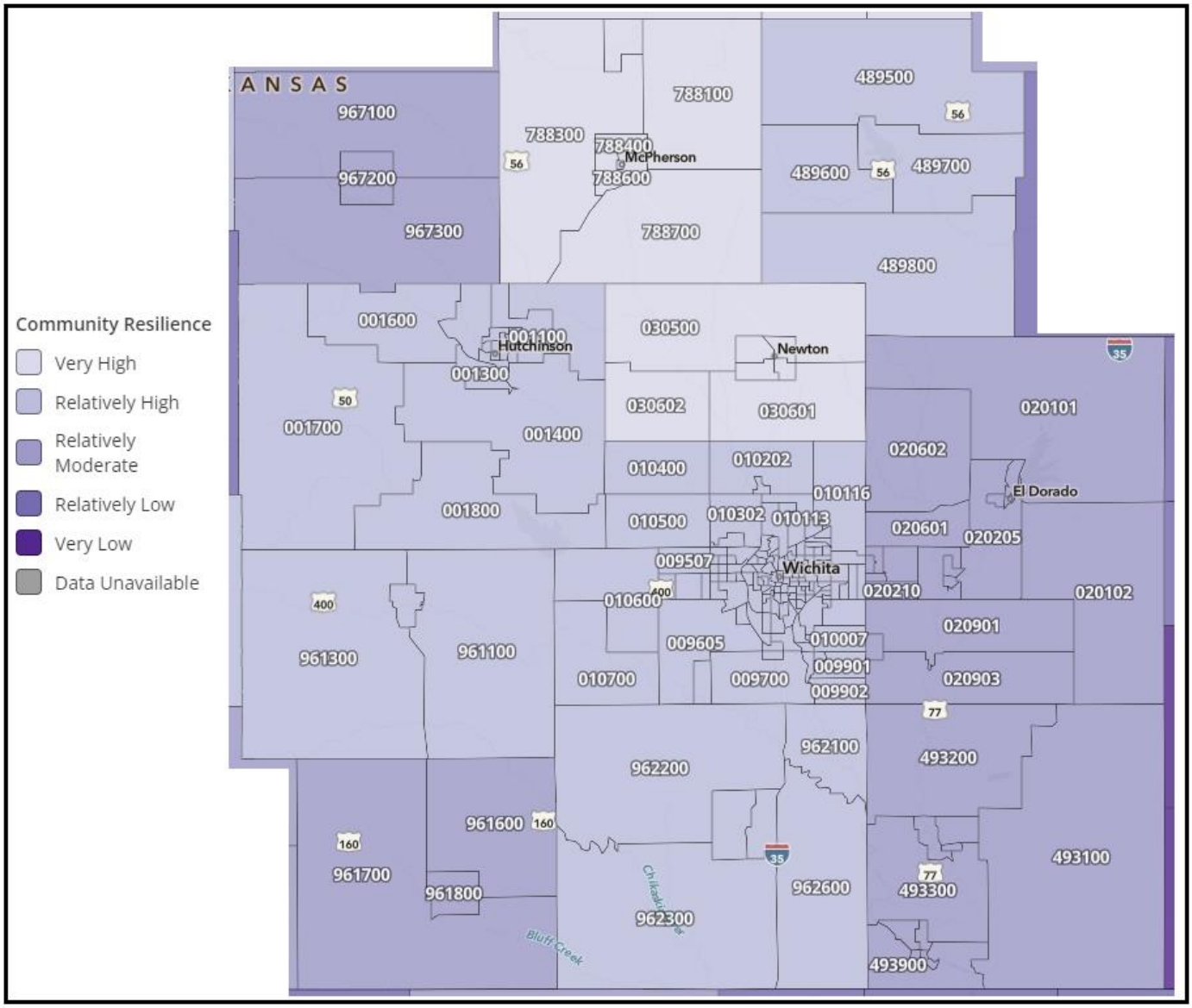
Data concerning community resilience is reported on the county level and by census tract, which can be analogous with jurisdictions. The following maps detail community resilience by both county and census tract for Kansas Region G:

Map 15: FEMA NRI Kansas Region G Community Resilience Map



Source: FEMA

Map 16: FEMA NRI Kansas Region G Community Resilience Map by Census Tract



Source: FEMA

Augmenting these maps, full NRI census tract data is available in Appendix C detailing specific information for each census tract in each Kansas Region G county.

3.5 Regional Population Migration

Kansas Region G, an area of the state known for its agricultural heritage and close-knit rural communities, is experiencing a significant population movement as people increasingly migrate from rural areas to urban centers. This transformation reflects broader demographic trends witnessed across the United States. Demographic research indicates that this migration is occurring due to the following factors:

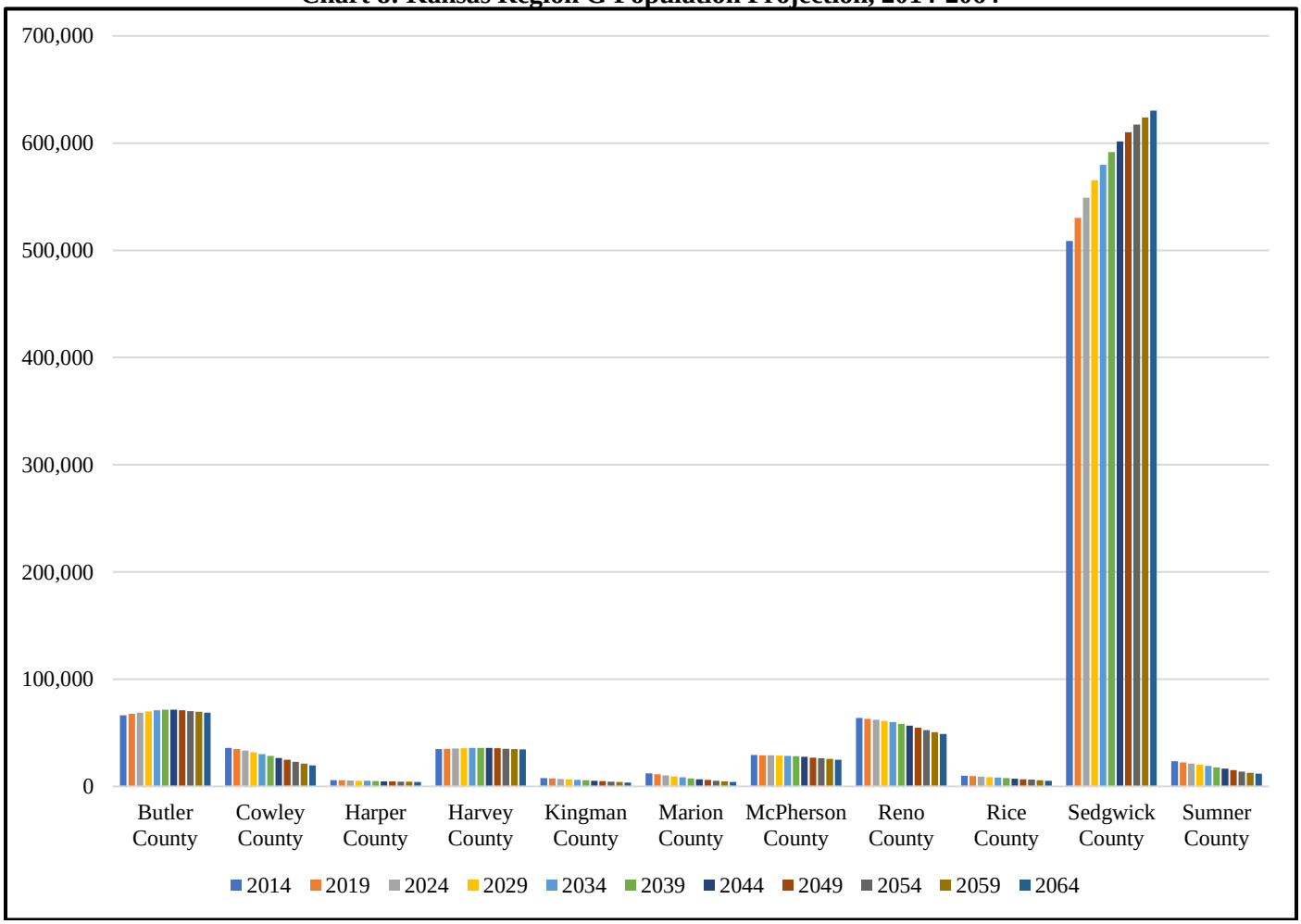
- Economic Opportunity: A primary driver of the population movement from rural to urban areas is the quest for better economic prospects. Urban centers such as Wichita, the largest city in the region, offer a diverse range of employment opportunities in sectors like manufacturing, healthcare, finance, and technology. These opportunities often come with higher wages and better access to educational and healthcare facilities compared to rural locales.

- Technological Advancements in Agriculture: The modernization of agriculture has led to increased mechanization and efficiency, reducing the demand for manual labor on farms. As a result, rural residents whose livelihoods were traditionally tied to farming are increasingly seeking employment in urban areas.
- Access to Education and Training: Urban centers are often home to educational institutions, including colleges, universities, and vocational schools. Young people from rural areas often migrate to these urban settings to pursue higher education and vocational training. This educational mobility is a key factor in the rural-to-urban population shift.

The rural-to-urban population movement has significant implications for both rural and urban areas in Kansas Region G. Rural communities may experience declining populations, school closures, and reduced economic activity. Meanwhile, urban centers may undergo growth, requiring increased investment in housing, infrastructure, and public services to accommodate the influx of new residents.

The following chart, using data from the Wichita State University Center for Economic Development and Business Research Kansas Population Forecast, indicates population projections (potentially dur to rural-to-urban migration) for Kansas Region G. As indicated in the report, all counties, with the exception of Sedgwick County, are indicated to have either a generally static or decreasing populations over the next 40 years.

Chart 8: Kansas Region G Population Projection, 2014-2064



Source: Wichita State University Center for Economic Development and Business Research Kansas Population Forecast

3.6 Regional Housing Trends

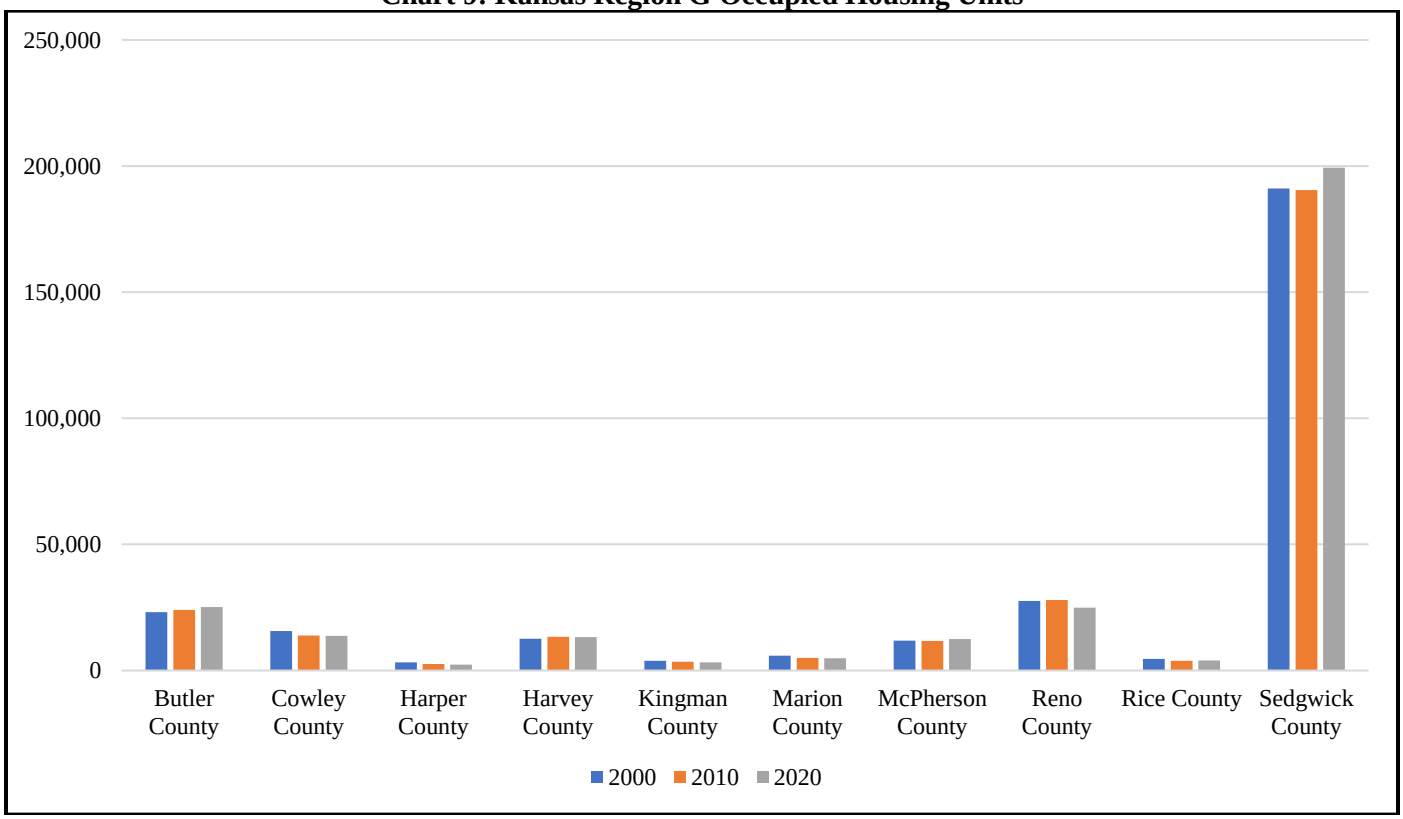
Closely tracking population data, but tending to lag population changes, housing data is a good indicator of changing demographics and growth. The following table and associated chart, using data from the U.S. Census, present occupied housing unit information for the 11 Region G counties.

Table 20: Kansas Region G Housing Data

County	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Butler County	23,176	23,992	25,201	2,025	8.7%
Cowley County	15,673	13,940	13,800	-1,873	-12.0%
Harper County	3,270	2,647	2,367	-903	-27.6%
Harvey County	12,581	13,411	13,263	682	5.4%
Kingman County	3,852	3,464	3,253	-599	-15.6%
Marion County	5,882	5,063	4,838	-1,044	-17.7%
McPherson County	11,830	11,748	12,479	649	5.5%
Reno County	27,625	27,954	24,970	-2,655	-9.6%
Rice County	4,609	3,906	3,939	-670	-14.5%
Sedgwick County	191,133	190,444	199,320	8,187	4.3%
Sumner County	10,877	9,280	9,462	-1,415	-13.0%

Source: US Census Bureau

Chart 9: Kansas Region G Occupied Housing Units



Source: US Census Bureau

FEMA's Hazus is a nationally standardized risk modeling methodology that uses GIS-based data to identify areas with high risk for natural hazards. Hazus also details the number of buildings and the replacement value of those buildings within the defined area. The following data, from Hazus, indicates the total number of buildings, the replacement valuation (excluding contents), and the percentage of buildings identified as residential properties for Kansas Region G:

Table 21: Kansas Region G Hazus Structure Information

Jurisdiction	Number of Buildings	Replacement Value	Percentage Residential
Butler County	26,413	$6,324,000,000	82.7 %
Cowley County	15,909	$3,486,000,000	77.0%
Harper County	3,508	$753,000,000	68.6%
Harvey County	14,537	$3,706,000,000	73.8%
Kingman County	4,269	$980,0000,000	74.9%
Marion County	6,426	$1,479,000,000	75.4%
McPherson County	13,450	$3,576,000,000	72.5%
Reno County	28,105	$6,727,000,000	71.4%
Rice County	5,072	$1,126,000,000	73.5%
Sedgwick County	188,642	$54,479,000,000	74.1%
Sumner County	11,656	$2,654,000,000	76.5%

Source: FEAM Hazus

The following tables present occupied housing unit data on a jurisdictional level, broken down by county.

Table 22: Butler Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Butler County	23,176	23,992	25,201	2,025	8.7%
Andover	2,456	4,036	5,009	2,553	103.9%
Augusta	3,842	3,669	3,670	-172	-4.5%
Benton	327	325	375	48	14.7%
Cassoday	57	55	43	-14	-24.6%
Douglass	733	625	595	-138	-18.8%
Elbing	77	73	77	0	0.0%
El Dorado	5,460	5,227	5,136	-324	-5.9%
Latham	81	61	47	-34	-42.0%
Leon	269	264	264	-5	-1.9%
Potwin	208	181	168	-40	-19.2%
Towanda	537	524	528	-9	-1.7%
Rose Hill	1,098	1,288	1,405	307	28.0%
Whitewater	255	254	253	-2	-0.8%

Source: US Census Bureau

Table 23: Cowley County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Cowley County	15,673	13,940	13,017	-2,656	-16.9%
Arkansas City	5,628	4,802	4,467	-1,161	-20.6%
Atlanta	116	75	71	-45	-38.8%
Burden	236	195	189	-47	-19.9%
Cambridge	55	39	43	-12	-21.8%
Dexter	133	105	94	-39	-29.3%
Gueda Springs	88	77	71	-17	-19.3%
Parkerfield	1	156	157	156	15600.0%
Udall	322	289	263	-59	-18.3%
Winfield	5,049	4,600	4,532	-517	-10.2%

Source: US Census Bureau

Table 24: Harper County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Harper County	3,270	2,647	2,204	-1,066	-32.6%
Anthony	1,215	977	922	-293	-24.1%
Attica	297	246	218	-79	-26.6%
Bluff City	48	29	21	-27	-56.3%
Danville	30	19	13	-17	-56.7%
Harper	787	603	494	-293	-37.2%
Freeport	5	0	0	-5	-100.0%

Source: US Census Bureau

Table 25: Harvey County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Harvey County	12,581	13,411	13,263	682	5.4%
Burrton	402	379	323	-79	-19.7%
Halstead	849	759	894	45	5.3%
Hesston	1,308	1,494	1,521	213	16.3%
Newton	7,277	6,872	7,316	39	0.5%
North Newton	632	601	815	183	29.0%
Sedgwick	568	550	586	18	3.2%
Walton	618	653	686	68	11.0%

Source: US Census Bureau

Table 26: Kingman County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Kingman County	3,852	3,464	3,177	-675	-17.5%
Cunningham	218	195	175	-43	-19.7%
City of Kingman	1,563	1,305	1,429	-134	-8.6%
Nashville	56	45	27	-29	-51.8%
Norwich	216	218	181	-35	-16.2%
Penalosa	19	20	1	-18	-94.7%
Spivey	49	39	24	-25	-51.0%
Zenda	60	44	30	-30	-50.0%

Source: US Census Bureau

Table 27: Marion County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Marion County	5,882	5,063	4,617	-1,265	-21.5%
Burns	116	77	86	-30	-25.9%
Durham	64	36	36	-28	-43.8%
Florence	301	198	249	-52	-17.3%
Goessel	221	207	195	-26	-11.8%
Hillsboro	1,209	940	961	-248	-20.5%
Lehigh	83	85	68	-15	-18.1%
Lincolnville	97	78	80	-17	-17.5%
City of Marion	968	957	861	-107	-11.1%
Peabody	602	545	439	-163	-27.1%
Tampa	69	53	54	-15	-21.7%

Source: US Census Bureau

Table 28: McPherson County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
McPherson County	11,830	11,748	12,180	350	3.0%
Canton	342	301	283	-59	-17.3%
Galva	297	343	344	47	15.8%
Inman	518	513	528	10	1.9%
Lindsborg	1,331	1,303	1,346	15	1.1%
Marquette	271	272	274	3	1.1%
City of McPherson	5,658	5,521	5,645	-13	-0.2%
Moundridge	681	736	820	139	20.4%
Windom	74	53	48	-26	-35.1%

Source: US Census Bureau

Table 29: Reno County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Reno County	27,625	27,954	25,023	-2,602	-9.4%
Abbyville	51	42	42	-9	-17.6%
Arlington	218	200	196	-22	-10.1%
Buhler	521	483	477	-44	-8.4%
Haven	498	492	475	-23	-4.6%
The Highlands	-	-	227	-	-
Hutchinson	17,693	16,981	16,535	-1,158	-6.5%
Langdon	39	20	6	-33	-84.6%
Nickerson	507	422	399	-108	-21.3%
Partridge	106	97	84	-22	-20.8%
Plevna	52	43	37	-15	-28.8%
Pretty Prairie	290	272	246	-44	-15.2%
South Hutchinson	1,210	1,113	1,182	-28	-2.3%
Sylvia	142	97	96	-46	-32.4%
Turon	218	159	128	-90	-41.3%
Willowbrook	23	35	28	5	21.7%

Source: US Census Bureau

Table 30: Rice County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Rice County	4,609	3,906	3,766	-843	-18.3%
Alden	85	68	50	-35	-41.2%
Bushton	158	139	152	-6	-3.8%
Chase	222	205	203	-19	-8.6%
Geneseo	171	159	113	-58	-33.9%
Little River	234	201	162	-72	-30.8%
Lyons	1,738	1,554	1,575	-163	-9.4%
Raymond	51	55	33	-18	-35.3%
Sterling	963	821	773	-190	-19.7%

Source: US Census Bureau

Table 31: Sedgwick County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Sedgwick County	191,133	190,444	204,815	13,682	7.2%

Table 31: Sedgwick County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Andale	247	310	338	91	36.8%
Bel Aire	2,024	2,271	2,766	742	36.7%
Bentley	150	164	160	10	6.7%
Cheney	689	712	714	25	3.6%
Clearwater	791	909	838	47	5.9%
Colwich	392	427	506	114	29.1%
Derby	6,407	7,785	9,953	3,546	55.3%
Eastborough	320	315	297	-23	-7.2%
Garden Plain	292	311	335	43	14.7%
Goddard	698	1,353	1,433	735	105.3%
Haysville	3,167	3,836	3,967	800	25.3%
Kechi	370	688	982	612	165.4%
Maize	668	1,103	2,346	1,678	251.2%
Mount Hope	319	310	337	18	5.6%
Mulvane	1,963	2,307	2,315	352	17.9%
Park City	2,200	2,593	2,856	656	29.8%
City of Sedgwick	568	598	586	18	3.2%
Valley Center	1,826	2,403	3,001	1,175	64.3%
Viola	79	56	98	19	24.1%
Wichita	152,119	149,658	156,668	4,549	3.0%

Source: US Census Bureau

Table 32: Sumner County Occupied Housing Unit Data

Jurisdiction	Occupied Housing Units			Numeric Change 2000-2020	Percentage Change 2000-2020
	2000	2010	2020		
Sumner County	10,877	9,280	8,955	-1,922	-17.7%
Argonia	255	621	665	410	160.8%
Belle Plaine	712	74	85	-627	-88.1%
Caldwell	668	559	446	-222	-33.2%
Geuda Springs	88	74	85	-3	-3.4%
Mulvane	1,963	2,307	2,315	352	17.9%
Oxford	503	395	455	-48	-9.5%
South Haven	182	132	139	-43	-23.6%
Wellington	3,795	3,258	2,882	-913	-24.1%

Source: US Census Bureau

Of particular concern when considering housing data is mobile home residences. Data from the NOAA National Severe Storms Laboratory reports that people living in mobile homes are especially at risk for injury and death as even anchored mobile homes can be seriously damaged when winds gust over 80 miles per hour. Additionally, study data from Michigan State University reported that the two biggest factors related to wind event fatalities were housing quality (measured by mobile homes as a proportion of housing units) and income level. When a tornadic wind strikes, a county with double the number of mobile homes as a proportion of all homes will experience 62% more fatalities than a county with fewer mobile homes, according to the study data. The following indicates the percentage of mobile homes for each Region G county:

Table 33: Kansas Region G Mobile Home Data

Jurisdiction	Number of Mobile Homes	Percentage Of Housing Stock as Mobile Homes
Butler County	1,926	7.6%
Cowley County	1,099	8.4%
Harper County	101	4.6%

Table 33: Kansas Region G Mobile Home Data

Jurisdiction	Number of Mobile Homes	Percentage Of Housing Stock as Mobile Homes
Harvey County	416	3.1%
Kingman County	213	6.7%
Marion County	171	3.7%
McPherson County	473	3.9%
Reno County	982	3.9%
Rice County	120	3.2%
Sedgwick County	6,321	3.1%
Sumner County	719	8.0%

Source: United States Census Bureau

3.7 School District Data

Each participating county is served by multiple Unified School Districts (USDs). The following table presents USD enrollment information for 2018 (data compiled from the last plan), and 2023 (the most recent available data):

Table 34: USD Enrollment Information

USD #	District Name	County	2018 Enrollment	2023 Enrollment	2018 -2023 Enrollment Change
205	Bluestem	Butler	498	527	29
206	Remington-Whitewater	Butler	511	465	-46
375	Circle	Butler	1,890	2,041	151
385	Andover	Butler	5,171	5,653	482
394	Rose Hill Public Schools	Butler	1,551	1,642	91
396	Douglass Public Schools	Butler	680	632	-48
402	Augusta	Butler	2,169	2,074	-95
490	El Dorado	Butler	1,903	1,820	-83
492	Flinthills	Butler	270	276	6
462	Central	Cowley	312	287	-25
463	Udall	Cowley	339	318	-21
465	Winfield	Cowley	2,209	2,115	-94
470	Arkansas City	Cowley	2,814	2,817	4
471	Dexter	Cowley	143	267	124
361	Chaparral Schools	Harper	826	801	-25
511	Attica	Harper	169	176	8
369	Burrton	Harvey	245	160	-85
373	Newton	Harvey	3,418	3,153	-265
439	Sedgwick Public Schools	Harvey	477	506	29
440	Halstead	Harvey	752	817	65
460	Hesston	Harvey	798	868	70
331	Kingman - Norwich	Kingman	917	900	-17
332	Cunningham	Kingman	157	211	54
397	Centre	Marion	215	181	-34
398	Peabody-Burns	Marion	250	205	-45
408	Marion-Florence	Marion	522	496	-26
410	Durham-Hillsboro-Lehigh	Marion	571	612	41
411	Goessel	Marion	285	284	-1
400	Smoky Valley	McPherson	869	808	-61
418	McPherson	McPherson	2,366	2,291	-75
419	Canton-Galva	McPherson	368	334	-34
423	Moundridge	McPherson	392	486	94

Table 34: USD Enrollment Information

USD #	District Name	County	2018 Enrollment	2023 Enrollment	2018 -2023 Enrollment Change
448	Inman	McPherson	421	415	-6
308	Hutchinson Public Schools	Reno	4,813	4,086	-727
309	Nickerson	Reno	1,123	937	-186
310	Fairfield	Reno	303	283	-20
311	Pretty Prairie	Reno	254	304	51
312	Haven Public Schools	Reno	825	749	-76
313	Buhler	Reno	2,287	2,287	0
376	Sterling	Rice	520	466	-54
401	Chase-Raymond	Rice	162	143	-19
405	Lyons	Rice	814	750	-64
444	Little River	Rice	321	283	-38
259	Wichita	Sedgwick	48,695	45,838	-2,857
260	Derby	Sedgwick	6,779	7,281	502
261	Haysville	Sedgwick	5,500	5,744	244
262	Valley Center Public Schools	Sedgwick	2,787	3,124	337
263	Mulvane	Sedgwick	1,752	1,813	61
264	Clearwater	Sedgwick	1,131	1,088	-43
265	Goddard	Sedgwick	5,584	6,267	683
266	Maize	Sedgwick	6,776	7,439	663
267	Renwick	Sedgwick	1,884	1,916	33
268	Cheney	Sedgwick	781	810	29
353	Wellington	Sumner	1,596	1,487	-109
356	Conway Springs	Sumner	486	474	-12
357	Belle Plaine	Sumner	606	563	-43
358	Oxford	Sumner	298	406	109
359	Argonia Public Schools	Sumner	188	144	-44
360	Caldwell	Sumner	232	239	7
509	South Haven	Sumner	201	206	6

Source: Kansas State Department of Education

3.8 Regional Land Use

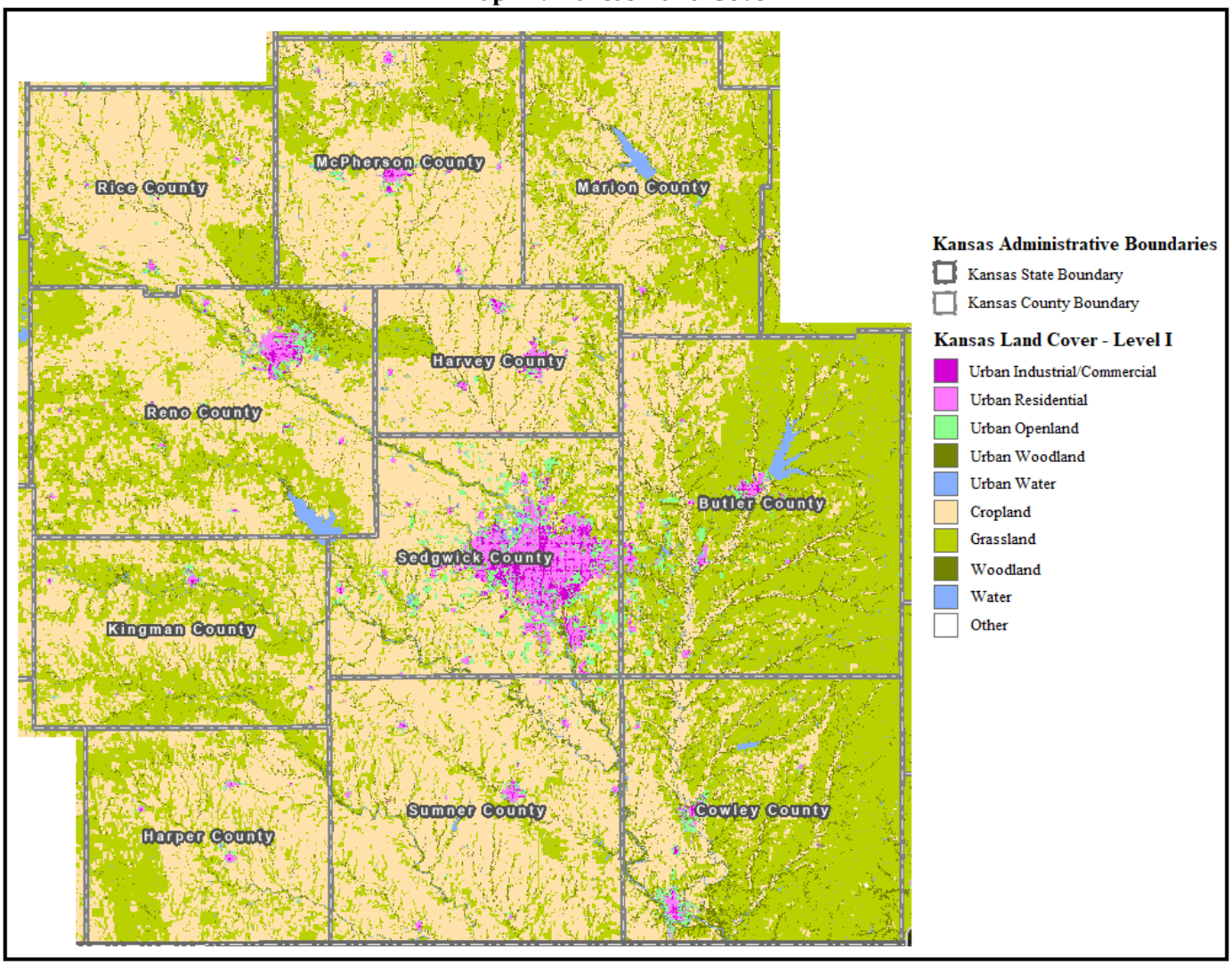
Land use in a Region Gas a profound and lasting impact on future development. The way land is allocated and utilized can shape the economic, social, and environmental aspects of a region for decades. Land use affects that can impact future development include:

- Economic Development: Land use decisions influence the location and type of economic activities in a region. Zoning regulations that encourage the development of industrial zones can attract manufacturing businesses, while zoning for commercial and residential areas can promote retail and housing development. These decisions can have long-term implications for job creation, revenue generation, and the overall economic health.
- Transportation and Infrastructure: Land use planning is closely tied to transportation infrastructure. The location of road and other transportation facilities is determined in part by land use decisions. Well-planned land use can lead to efficient transportation networks, reducing congestion, and improving mobility. Poorly planned land use, on the other hand, can result in traffic congestion and increased infrastructure costs.
- Housing and Urbanization: Land use policies influence the availability and affordability of housing in a region. Zoning regulations, for example, can determine the density of residential areas and the types of housing permitted. Inadequate or restrictive land use policies can lead to housing shortages and higher costs, while well-planned policies can support diverse housing options and affordability.

- Resilience to Climate Change: Land use planning plays a critical role in a region's ability to ad change. Smart land use decisions can reduce vulnerability to natural disasters, such as flooding and wildfires, by avoiding high-risk areas and implementing resilient building codes and infrastructure.
- Long-Term Costs: Land use decisions can affect the long-term costs of development. Efficient land use planning can reduce the need for costly infrastructure extensions and maintenance, while inefficient or sprawling development can strain municipal budgets.

As indicated by the following map from the University of Kansas, land use in Kansas Region G is largely rural and agricultural (with the exception of a few larger cities such as Hutchinson and Wichita).

Map 17: Kansas Land Cover



Source: University of Kansas

Rural and agricultural areas in Kansas tend to retain their rural and agricultural nature over time, but there are several factors that can influence the evolution of these areas, including:

- Economic Conditions: The economic viability of agriculture can vary significantly over time due to factors like crop prices, weather patterns, and changes in agricultural technology. Economic challenges may lead some farmers to sell their land for non-agricultural uses or to consolidate their operations, potentially affecting the rural landscape.

- Urbanization and Development: In some cases, rural areas in Kansas may experience suburban expansion of nearby urban centers. This can result in residential and commercial development encroaching on agricultural land. However, the extent of this development depends on local zoning and land use regulations.
- Infrastructure Development: The construction of new transportation infrastructure, such as highways or railroads, can influence land use patterns. Improved infrastructure may make it easier to transport agricultural products to markets or to access rural areas for development.
- Government Policies: Government policies, including agricultural subsidies, land use regulations, and conservation programs, can impact the way rural and agricultural land is used. For example, conservation programs may encourage farmers to preserve land for wildlife habitat rather than development.
- Local Planning and Zoning: Local governments play a key role in land use planning and zoning regulations. These policies can determine whether agricultural land can be converted to non-agricultural uses, such as residential or commercial development. Some areas may have strict zoning that preserves agricultural character, while others may allow more flexibility.
- Population Trends: Demographic trends, including population growth or decline, can influence the demand for land in rural areas. If there is an influx of new residents seeking a rural lifestyle, it can drive demand for residential development in formerly agricultural areas.

3.9 Regional Infrastructure Development

In particular, infrastructure repair can have a significant impact on regional development, both positive and negative. The specific effects depend on the scale of the repair projects, the quality of the infrastructure, and the overall economic and social context of the region, and may include:

- Improved Connectivity: Repairing and upgrading infrastructure, such as roads, bridges, and ports, can enhance connectivity within and between regions. This improved connectivity can reduce transportation costs, facilitate the movement of goods and people, and attract businesses and investments to the region.
- Economic Growth: Functional infrastructure supports economic activities. When infrastructure is repaired, it can create jobs directly in the construction and maintenance sectors. Additionally, it can indirectly stimulate economic growth by providing a reliable foundation for businesses to operate and expand, leading to increased production and trade.
- Enhanced Productivity: Well-maintained infrastructure can increase productivity by reducing downtime and transportation delays. This, in turn, can make regional industries more competitive and efficient.
- Attracting Investment: Regions with modern and well-maintained infrastructure are often more attractive to investors. Businesses are more likely to invest in regions with reliable transportation, utilities, and communication networks, as it reduces operational risks and costs.
- Quality of Life: Infrastructure repair can enhance the quality of life for residents by providing access to essential services such as clean water, sanitation, healthcare, and education. This can contribute to improved human development indicators and overall well-being.
- Resilience and Disaster Mitigation: Infrastructure repair can include upgrades to make infrastructure more resilient to natural disasters and climate change impacts. This can help protect communities and assets and reduce the long-term costs of recovery and reconstruction.
- Social Equity: Infrastructure repair can address disparities in access to essential services. It can benefit marginalized communities by providing them with equal access to transportation, utilities, and public facilities.

However, it is important to note that there can be negative impacts as well, including:

- Disruption During Construction: Repair projects can disrupt communities and businesses during the construction phase, leading to short-term challenges.
- Costs and Budget Constraints: Large-scale infrastructure repair projects can be costly, and they may strain regional budgets or lead to increased taxes or debt.

- Environmental Concerns: If not done carefully, infrastructure repair projects can have adverse impacts, such as habitat disruption or water pollution.

Recent significant state, county, and local infrastructure projects within Region G include:

- Butler County
  - Bridge Replacement - Hickory Creek Bridge on SE Cole Creek Rd.
  - SW Ohio Street Rd/SW 20th St Intersection
  - K-254 Corridor Management Plan in Sedgwick and Butler counties to establish future land development and an access management approach.
- Cowley County
  - Repair of U.S. 166 bridge over the Walnut River.
  - Pavement replacement on nearly 9 miles of U.S. 77 between Arkansas City and the Walnut River.
  - Intersection improvements at 222nd Road.
  - 232nd Road replacement, 2.5 miles south, 3.5 miles west of Dexter over Grouse Creek.
- Harper County
  - Repairs of N.W. 110 Avenue and bridge, 3.7 miles north of Attica over W. Branch Bluff Creek
  - SCTELCOM is expanding broadband service to extremely rural areas in Harper County in areas surrounding the cities of Anthony, Attica and Harper.
- Harvey County
  - Repairs to 60th Street and bridge, 9.3 miles east of I-135 over East Whitewater Creek
  - Traffic sign project on four highways including U.S. 50, K15, K-89 and K-196. The project length is about 54 miles.
  - Extension of passing lanes on U.S. 50 at the Harvey/Marion County line.
- Kingman
  - Repairs to NE 50 Street from NE 150 Ave to NE 170 Avenue
  - Repairs to U.S. 54 from the Pratt County line east to the west Ninnescah River bridge.
  - K-42 bridge replacement over Chikaskia River drainage.
  - New development at Kingman Airport, including the construction of a full-length 4,300-foot parallel taxiway.
- Marion County
  - Repairs to 310 Road, 2.0 miles south and 0.9 miles east of Tampa
  - A new commercial wind energy farm was constructed in the northwest part of Marion County and operational in 2019.
  - Reconstruction of Kanza Road, US56 to 180th, including 13 miles of Nighthawk between Peabody and Canada, five miles of 330th east of Tampa and 2.2 miles of 60th from Peabody west to Harvey County line.
- McPherson County
  - Capital Improvement Project, Hulse Street Reconstruction
  - Capital Improvement Project, Eagles Wings Unit 3
  - Capital Improvement Project, Lakeside Park Bank Restoration (Park Department)
  - Capital Improvement Project, Wall Park (Mingenback Lake) Bank Restoration
  - Capital Improvement Project, - South Walnut Street Reconstruction
  - Public Works Project, Elm Street Reconstruction
  - Public Works Project, Ash Street Reconstruction
  - US-56/K-153, Hwy 81 Bypass Intersection Reconstruction
- Reno County
  - K-14 in Reno and Rice counties, including a mill and hot-mix-asphalt overlay and bridge repair.
  - Bridge repair on Lerado Road between Fountain Green Road and Pleasant Valley Road.
  - Bridge Load Rating Program repair on Castleton Road Bridge between Sego Road and Fairview Road.
  - Bridge Load Rating Program repair Peace Road Bridge between Sun City Road and Silver Lake Road

- Bridge replacement on 69th Avenue between Yaggy Road and Wilson Road.
- Bridge replacement on Olcott Road between Maple Grove Road and Boundary Road will be closed to all through traffic
- Bridge replacement on Broadacres Road between Morgan Avenue and Mills Avenue.
- Kansas Department of Commerce BASE grant award of $2,000,000 to Growth, Inc., a division of the Hutchinson / Reno County Chamber of Commerce for planning for infrastructure for industrial development in Reno County along the K96 corridor.
- Construction of the Northwest bypass, realigning K-96 highway between Nickerson and Sterling.

- Rice County
  - Repairs to 22nd Road and bridge, 6.0 miles east, 1.8 miles north of Sterling over Cow Creek
  - Replacement of a K-14 bridge over the Cow Creek drainage, 9.7 miles north of the Reno County line between Sterling and Lyons.
- Sedgwick County
  - Repairs on North Oliver, south of East 45th Street.
  - Dry Creek Estates Street Improvements.
  - Bridge repairs on Greenwich Road, between 109th and 117th Streets North.
  - Drainage channel improvements from 87th to 79th Street South.
  - Bridge repair on 151st Street West over the Ninnescah River.
  - Repairs of Oaklawn Stormwater Sewer at 47th Street South /Arkansas River.
  - Bridge repairs on 391st Street West over the South Fork Ninnescah River.
  - Bridge repairs on 103rd Street South between 119th and 135th Streets West.
  - Bridge repairs on Ridge Road between 61st and 69th Streets North & 811-B-2423; Bridge on Ridge Road between 109th and 117th Streets North.
  - Bridge repairs on 143rd Street East between 69th and 77th Streets North.
  - Bridge repairs on 85th Street North between Oliver Ave. and Woodlawn Blvd.
  - Bridge repairs on 151st Street West between 85th and 93rd Streets North.
  - Bridge repairs on Greenwich Road Between 117th and 125th Streets North.
  - The City of Wichita & Sedgwick County awarded a $21,000,000 BUILD Grant to Conduct repairs and improvements on the Wichita North Junction (where I-135, I-235, K-254, and K-96 meet in North Wichita).
  - Kansas Department of Commerce $4,716,225 BASE grant award to City of Bel Aire for Sunflower Commerce Park sewer infrastructure.
  - Kansas Department of Commerce $3,000,000 BASE grant award to City of Bel Aire for Exploration Place.
  - Kansas Department of Commerce $2,000,000 BASE grant award to Hutton Corporation for Maize Industrial Park.
  - Kansas Department of Commerce $1,150,554 BASE grant award to Groover Labs for CyberLink infrastructure expansion.
  - The Capital Project Funds Broadband Infrastructure Program awarded AT&T $2,206,491 – to increase broadband connectivity to unserved locations on the fringes of the Wichita metro area, targeting multi-dwelling unit properties.
- Sumner County
  - Repairs on North Oliver Road, 2.1 miles north of Belle Plaine over Cowskin Creek Tributary.
  - I-35/ Kansas Turnpike Authority project for drainage improvements.
  - Replacement of the U.S. 81 bridge over Ninnescah River drainage three miles north of the K-55 junction.
  - Construction of a biofuel plant on 144 acres.
- Regional
  - The Kansas Office of Broadband is installing a 682-mile fiber optic network to connect Liberal to Garden City, Pratt to Wichita, Kismet to Minneola, Wichita to Pittsburg, and Pittsburg to Overland Park.

- The Capital Project Funds Broadband Infrastructure Program awarded the Butler [illegible] Cooperative Association (Butler, Cowley, Sedgwick, and Sumner counties) $9,815,894 to bring broadband connectivity.

Detailed information concerning development trends may be found in the Jurisdictional Comprehensive Plans. These plans, and on ground observations suggest that Kansas Region G's development continues to follow development described by planners in the previous HMP, specifically small-scale development projects over small areas. On average, the majority of undeveloped land has remained so over the life of the previous HMP and is expected to do so over the life of this plan. In some of the Regions' more rapidly developing communities, such as Wichita, building activity has increased proportionally to match the incoming population. This data is reflected in both the previously presented population and housing data.

All current and future development is potentially vulnerable to the hazards identified in this plan. However, many of the participating jurisdictions of Kansas Region G have taken steps to reduce the potential impacts through the utilization of building codes and comprehensive plans. A comprehensive plan outlines the long-term vision and goals for the development of a city or municipality. It serves as a strategic guide for future growth, land use, infrastructure, and community development. Comprehensive plans are typically created through a collaborative process involving local government officials, city planners, residents, and various stakeholders. A key component of a comprehensive plan is land use planning, which defines how land will be used, including residential, commercial, industrial, recreational, and green spaces.

Finally, there have been no major changes in existing jurisdictional facilities, either through construction or renovation. Additionally, a review of jurisdictional budgets, as possible, does not indicate any future projects related to increasing the resilience of any existing facilities or of construction facilities. As such, it is expected that the vulnerability of jurisdictional facilities is generally the same as during the life of the previous plan and will remain generally the same during the life of this plan.

3.10 Agricultural Data

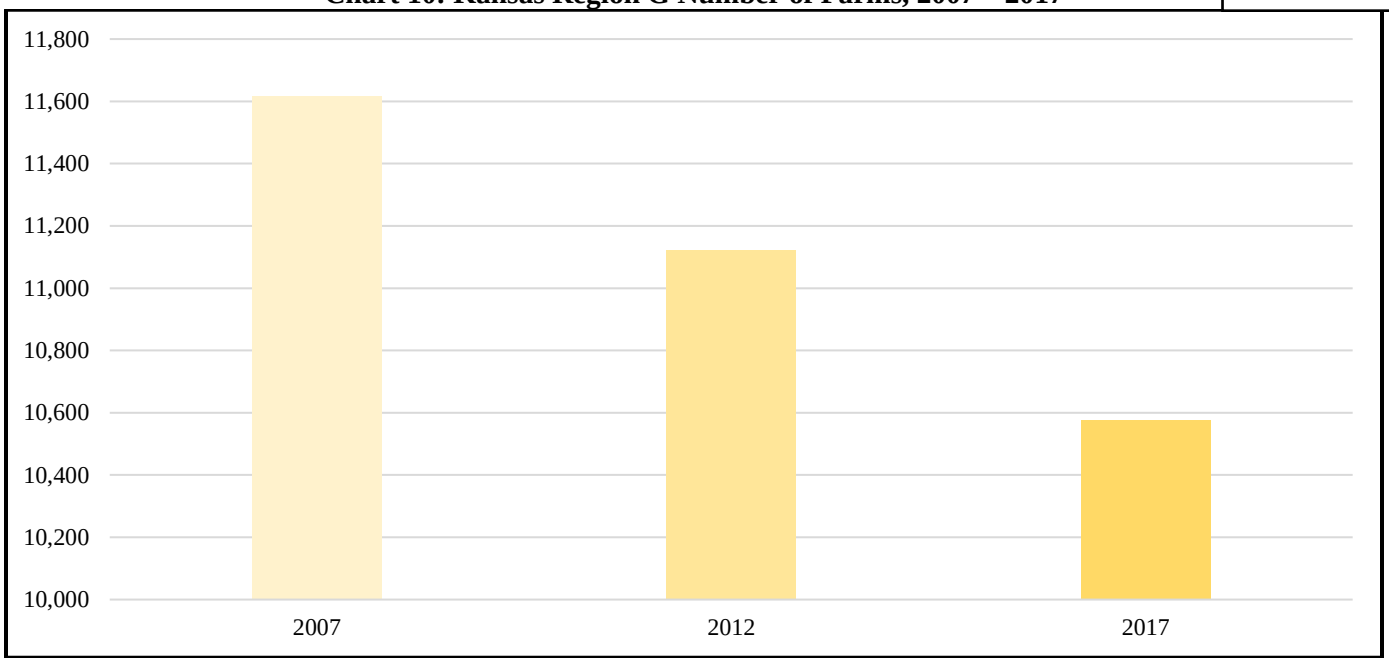
Agriculture forms a very important part of both the economic and social fabric of Kansas Region G. USDA National Agricultural Statistics Service data from 2007, 2012, and 2017 (the latest available data) was used to develop agricultural information for the region, as detailed in the following table and charts:

Table 35: Kansas Region G Regional Agricultural Data

Jurisdiction	Year	Number of Farms	Farm Acreage	Market Value of Products Sold
Kansas Region G	2007	11,617	6,323,813	$1,297,427,000
	2012	11,121	6,351,698	$1,968,518,000
	2017	10,576	6,344,251	$1,617,767,000

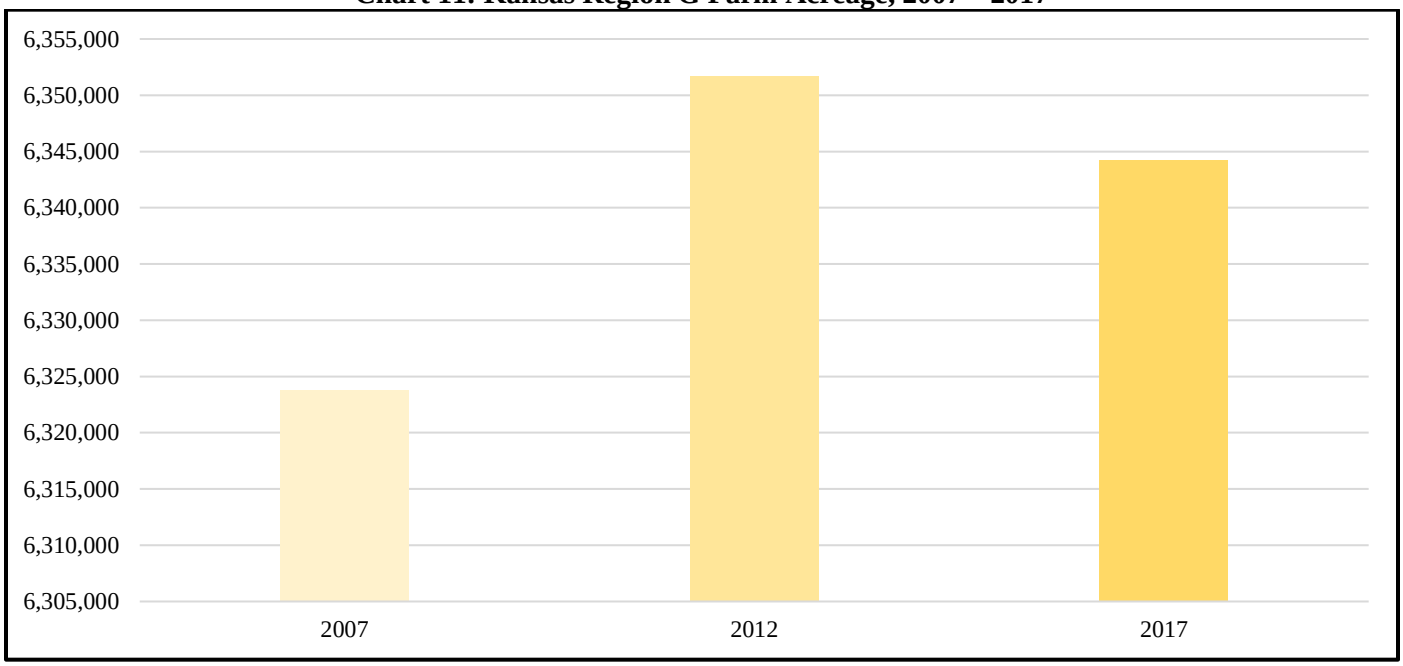
Source: USDA National Agricultural Statistics Service

Chart 10: Kansas Region G Number of Farms, 2007 – 2017



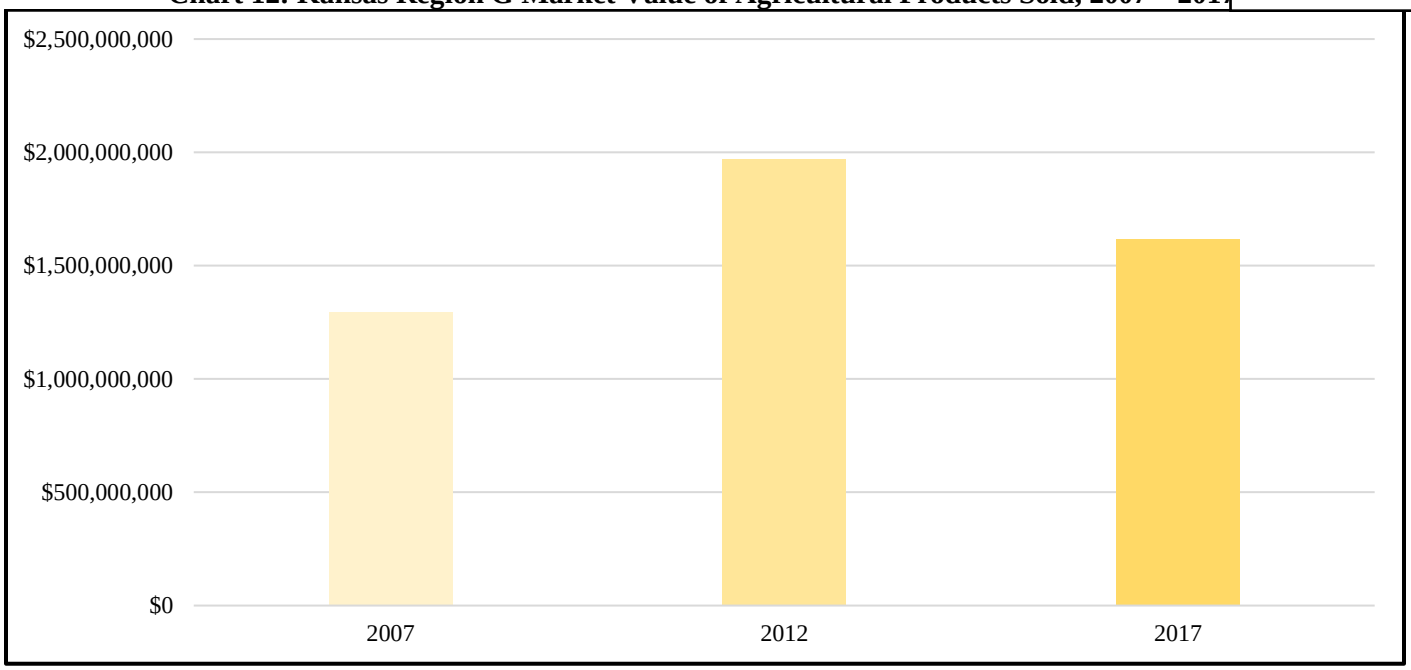
Source: USDA

Chart 11: Kansas Region G Farm Acreage, 2007 – 2017



Source: USDA

Chart 12: Kansas Region G Market Value of Agricultural Products Sold, 2007 – 2017



Source: USDA

The following table breaks down USDA National Agricultural Statistics Service data from 2007, 2012, and 2017 (the latest available data) on a county level:

Table 36: Kansas Region G County Level Agricultural Data

Jurisdiction	Year	Number of Farms	Farm Acreage	Market Value of Products Sold
Butler County	2007	1,427	787,290	$235,138,000
	2012	1,353	768,149	$282,338,000
	2017	1,471	798,408	$180,941,000
Cowley County	2007	1,027	575,584	$66,214,000
	2012	990	574,614	$108,976,000
	2017	921	563,453	$96,515,000
Harper County	2007	495	481,291	$93,424,000
	2012	495	506,006	$109,644,000
	2017	477	489,183	$93,148,000
Harvey County	2007	829	338,598	$103,676,000
	2012	744	339,584	$161,716,000
	2017	752	343,952	$139,975,000
Kingman County	2007	876	546,231	$52,051,000
	2012	808	542,010	$103,188,000
	2017	740	516,728	$78,779,000
Marion County	2007	974	599,022	$111,206,000
	2012	981	596,296	$151,478,000
	2017	892	567,828	$146,508,000
McPherson County	2007	1,142	566,309	$119,750,000
	2012	1,142	571,577	$208,482,000
	2017	988	558,094	$155,036,000
Reno County	2007	1,749	780,893	$171,249,000
	2012	1,633	789,525	$267,318,000
	2017	1,552	788,966	$216,729,000

Table 36: Kansas Region G County Level Agricultural Data

Jurisdiction	Year	Number of Farms	Farm Acreage	Market Value of Products Sold
Rice County	2007	580	428,422	$184,927,000
	2012	535	457,603	$258,181,000
	2017	470	463,294	$235,547,000
Sedgwick County	2007	1,419	510,308	$85,109,000
	2012	1,344	486,723	$148,484,000
	2017	1,360	496,568	$118,918,000
Sumner County	2007	1,099	709,865	$74,683,000
	2012	1,096	719,611	$168,713,000
	2017	953	757,777	$155,671,000

Source: USDA National Agricultural Statistics Service

3.11 Potential Impacts of Climate Change

There is a scientific consensus that climate change is occurring, and recent climate modeling results indicate that extreme weather events may become more common. Rising average temperatures produce a more variable climate system which may result in an increase in the frequency and severity of some extreme weather events including longer and hotter heat waves (and by correlation, an increased risk of wildfires), higher wind speeds, greater rainfall intensity, and increased tornado activity. Where applicable, and with proper scientific evidence, potential climate change factors will be addressed in subsequent sections for relevant identified hazards.

Data from the NOAA NCEI Kansas 2022 State Climate Summary indicates the following concerning the climate change in the state:

- Temperatures have risen approximately 1.5° Fahrenheit since the beginning of the 20th century.
- Recent multiyear periods have been among some of the warmest on record for Kansas, comparable to the extreme heat of the Dust Bowl era of the 1930s.
- Greater warming has occurred in the winter and spring months.
- The frequency of extreme precipitation events has been highly variable but shows a general increase, with the number of 2-inch precipitation events was well above average during the 2015–2020 period.
- Although projections of overall annual precipitation are uncertain, summer precipitation is projected to decrease across the state while winter precipitation is projected to increase.
- The increase in extreme precipitation events has been more pronounced in the eastern part of the state.
- The intensity of future droughts is projected to increase.
- Drought, combined with the extreme summer heat, is expected to have significant negative impacts on crop yields, livestock production, and pasture conditions.
- The frequency and severity of wildfires is projected to increase.

Section 4 – Hazard Identification and Risk Assessment

4.1 Introduction

The goal of this hazard mitigation is to reduce the future impacts of hazards, including deaths and injuries, property damage, and disruption to local and county economies, and to further reduce the amount of public and private funds spent to assist recovery. To complete this goal, hazard mitigation decision-making in this plan has been based on a robust risk assessment, completed to identify natural, human caused, and technological hazards that represent a risk to Kansas Region G. The following provide a definition of the risk assessment terms used during this assessment:

- **Hazard:** An act or phenomenon that has the potential to produce harm or other undesirable consequences to a person or thing.
- **Exposure:** The people, property, systems, or functions that could be lost to a hazard. Generally, exposure includes what lies in the area the hazard could affect.
- **Vulnerability:** Vulnerability is susceptibility to physical injury, harm, damage, or economic loss. It depends on an asset's construction, contents, and economic value of its functions.
- **Risk:** A function of hazard, vulnerability, and exposure. It refers to the likelihood of an event resulting in an adverse condition that causes injury or damage.

In order to accomplish this assessment, all relevant natural, human caused, and technological hazards, potential vulnerabilities, and exposures were identified. As potential hazards, vulnerabilities, and exposure are identified Kansas Region G can continue to develop a strategy to identify and prioritize mitigation action to defend against these potential risks.

4.2 Declared Federal Disasters

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. §§ 5121-5206) provides for the Federal support of State and local governments and their citizens when impacted by an overwhelming disaster. The Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, establishes the process for requesting a Presidential disaster declaration and defines the type assistance available.

If it is apparent that a Presidential disaster declaration may be necessary to assist in the recovery of an impacted area, Counties within Kansas Region G and FEMA Region VII will conduct a Preliminary Damage Assessment (PDA). This assessment is used to determine:

- The extent of the event.
- The impact of the event on individuals and public facilities.
- The types of federal assistance that may be needed.

Once the PDA is complete, and if a determination is made that the damages exceed available State of Kansas resources, the Governor may submit through FEMA Region VII a declaration request to the President.

A major disaster declaration provides a wide range of federal assistance programs for individuals and public infrastructure, including funds for both emergency and permanent work. Not all programs, however, are activated for every disaster. The determination of which programs are authorized is based on the types of assistance specified in the Governor's request and the needs identified during the initial and subsequent PDAs. FEMA disaster assistance programs may include:

- Individual Assistance
- Public Assistance
- Hazard Mitigation

To recognize and encourage mitigation, FEMA considers the extent to which mitigation measures contributed to the reduction of disaster damages. This could be especially significant in those disasters where, because of mitigation, the estimated public assistance damages fell below the per capita indicator.

Historical events of significant magnitude or impact can result in a Presidential Disaster Declaration. The I
the historical federal disaster declarations to assist in hazard identification. The following table details Disaster Declarations for Kansas Region G:

Table 37: Kansas Region G Presidentially Declared Disasters

Designation	Declaration Date	Incident Type	Counties	Assistance
DR-4640-KS	03/22/2022	Severe Storms and Straight-Line Winds	Sumner	$12,159,785
DR-4504-KS	03/29/2020	Covid-19	All	$371,502,285
DR-4499-KS	08/14/2019	Severe Storms, Straight-Line Winds, Flooding, Tornadoes, Landslides, and Mudslides	Butler, Cowley, Harper, Harvey, Kingman, Marion, McPherson, Reno, Rice, and Sumner	$51,157,548
DR-4417-KS	03/20/2019	Severe Storms, Straight-Line Winds, and Flooding	Cowley, Kingman, Reno, and Sumner	$3,509,374
DR-4403-KS	10/19/2018	Severe Storms, Straight-Line Winds, and Flooding	Kingman	$4,545,539
DR-4287-KS	10/20/2016	Severe Storms and Flooding	Cowley, Kingman, Sedgwick, and Sumner	$6,745,588
DR-4230-KS	07/20/2015	Severe Storms, Tornadoes, Straight-Line Winds and Flooding	Butler, Cowley, Harper, Harvey, Marion, McPherson, Rice, Sumner	$11,018,053
DR-4063-KS	05/24/2012	Severe Storms, Tornadoes, Straight-Line Winds and Flooding	Harper, Rice, Sedgwick, and Sumner	$6,923,919
DR-4010-KS	07/29/2011	Severe Storms, Straight-Line Winds, Tornadoes and Flooding	Marion	$8,259,620
DR-1932-KS	08/10/2010	Severe Storms, Flooding and Tornadoes	Butler, Harvey, Marion, and McPherson	$9,279,257
DR-1885-KS	03/09/2010	Severe Winter Storms and Snowstorm	Butler and Cowley	$19,100,658
DR-1860-KS	09/30/2009	Severe Storms and Flooding	Sedgwick	$3,347,662
DR-1849-KS	06/25/2009	Severe Storms, Flooding, Straight-Line Winds, and Tornadoes	Butler, Cowley, Harper, Harvey, Kingman, Marion, Reno, Rice, and Sumner	$15,013,488
DR-1848-KS	06/24/2009	Severe Winter Storm and Record and Near Record Snow	Butler, Cowley, Harvey, Marion, and Sumner	$20,174,657
DR-1808-KS	10/31/2008	Severe Storms, Flooding, and Tornadoes	Butler, Cowley, Harper, Harvey, and Sumner	$4,167,044
DR-1776-KS	07/09/2008	Severe Storms, Flooding, and Tornadoes	Butler, Cowley, Harper, Kingman, Reno, and Sumner	$70,629,544
DR-1741-KS	02/01/2008	Severe Winter Storms	Butler, Harvey, Kingman, Marion, McPherson, Reno, Rice, and Sedgwick	$359,557,345
DR-1711-KS	7/2/2007	Severe Storms and Flooding	Butler, Cowley, and Harper	$40,238,600
DR-1699-KS	5/6/2007	Severe Storms, Tornadoes, and Flooding	Cowley, Harper, Harvey, Kingman, McPherson, Reno, Rice, and Sumner	$117,565,269
DR-1579-KS	2/8/2005	Severe Winter Storm, Heavy Rains, and Flooding	All	$106,873,672
DR-1535-KS	8/3/2004	Severe Storms, Flooding, and Tornadoes	Butler	$12,845,892
DR-1402-KS	2/6/2002	Ice Storm	Butler, Cowley, Harper, Kingman, Sedgwick, and Sumner	$60,185,754
DR-1273-KS	5/4/1999	Tornadoes and Severe Storms	Reno, Sedgwick, and Sumner	$9,121,870
DR-1258-KS	11/5/1998	Severe Storms and Flooding	Butler, Cowley, Harper, Harvey, Marion, Sedgwick, and Sumner	$16,688,650
DR-1000-KS	7/22/1993	Flooding, Severe Storms	Harvey, Marion, McPherson, Reno, Rice, Sedgwick, and Sumner	$99,790,368
DR-903-KS	4/29/1991	Severe Storm, Tornado	Butler, Cowley, and Sedgwick	$4,862,790

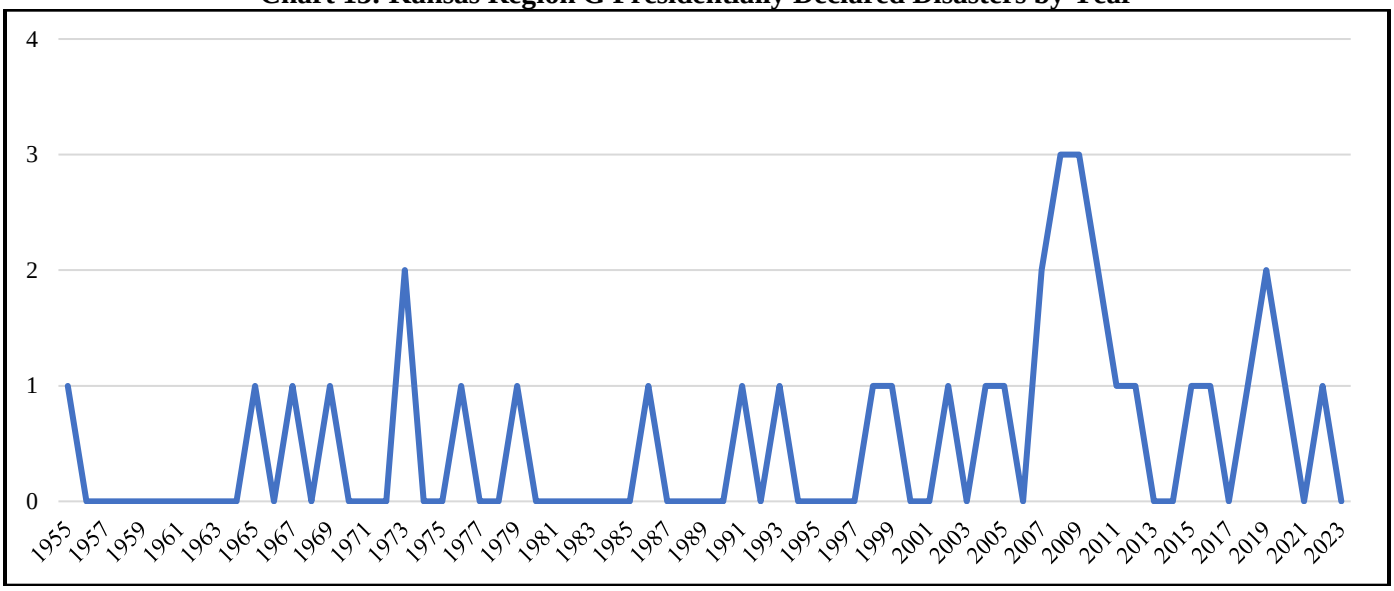
Table 37: Kansas Region G Presidentially Declared Disasters

Designation	Declaration Date	Incident Type	Counties	Assistance
DR-780-KS	10/22/1986	Severe Storms, Flooding	Cowley	$2,344,121
DR-588-KS	6/15/1979	Severe Storms, Flooding	Butler and Cowley	$1,056,090
DR-514-KS	7/13/1976	Severe Storms, High Winds, Flooding	Butler and Cowley	$1,794,942
DR-403-KS	9/28/1973	Severe Storms, Tornadoes, Flooding	All	$4,296,913
DR-378-KS	05/02/1973	Severe Storms, Flooding	All	$1,954,624
DR-267-KS	07/15/1969	Tornadoes, Severe Storms, Flooding	McPherson	$733,524
DR-229-KS	07/18/1967	Tornadoes, Severe Storms, Flooding	Harper, Kingman, and Marion	$847,439
DR-201-KS	06/23/1965	Flooding	Butler, Harvey, Marion, McPherson, Reno, Rice, and Sedgwick	$1,046,450
DR-34-KS	05/27/1955	Tornado	Cowley	$294,167

Source: FEMA

The following chart represents Presidentially Declared Disasters in the Kansas Region G by year, starting in 1955:

Chart 13: Kansas Region G Presidentially Declared Disasters by Year



Source: FEMA

The President can declare an emergency for any occasion or instance when the President determines federal assistance is needed. Emergency Declarations supplement State and local or Indian tribal government efforts in providing emergency services, such as the protection of lives, property, public health, and safety, or to lessen or avert the threat of a catastrophe. The total amount of assistance provided for in a single emergency may not exceed $5,000,000. The following types of assistance are available under an Emergency Declaration:

- Public Assistance, Categories A (debris removal) and B (emergency protective measures)
- Individual Assistance, the Individuals and Households Program

The MPC reviewed the historical federal disaster declarations to assist in hazard identification. The following table details Emergency Declarations for Kansas Region G.

Table 38: Kansas Region G Emergency Declarations

Designation	Declaration Date	Incident Type	Counties	Public Assistance
EM-3481-KS	03/13/2020	Kansas Covid-19	All	-
EM-3412-KS	05/28/2019	Flooding	Butler, Cowley, Harvey, Reno, Sumner	-
EM-3355-KS	12/12/2007	Kansas Winter Storms	All	-
EM-3334-KS	09/10/2005	Hurricane Katrina Evacuation	All	-
EM-3126-KS	3/30/2010	Kansas Grain Elevator Explosion	Harvey and Sedwick	$299,026

Source: FEMA
Note: -: Data unavailable

The Governor, or the Governor's Authorized Representative, may submit a request for a fire management assistance declaration as required. FEMA will approve declarations for fire management assistance when it is determined that a fire or fire complex on public or private forest land or grassland threatens such destruction as would constitute a major disaster.

The MPC reviewed the historical fire management declarations to assist in hazard identification. The following table details fire management declarations for Kansas Region G.

Table 39: Kansas Region G Fire Management Declarations

Designation	Declaration Date	Incident Name	Counties	Public Assistance	Emergency Work
FM-5425-KS	5/5/2022	Kansas Cottonwood Fire Complex	Harvey and Reno	$464,403	$59,033
FM-5170-KS	3/5/2017	Kansas Highland Hills Fire	McPherson, Reno, and Rice	$1,727,559	$559,070
FM-2632-KS	3/30/2006	Kansas Obee Fire	Reno	-	-

Source: FEMA

The governor of the State of Kansas has declared one Kansas Disaster Declaration during the past five years for Region G. On April 20, 2020 a declaration was issued for the COVID-19 pandemic.

4.3 Identified Potential Hazards

One of the first steps in developing a hazard assessment is to identify the hazards that have a reasonable risk of occurring. Proper identification allows for appropriate and well-planned action in order to mitigate the extent and cascading impacts of an incident. Furthermore, while not all disaster contingencies can be planned for, applying an all-hazards approach to the mitigation process does yield greater awareness and better preparedness for unforeseen hazard incidents overall.

The MPC met to discuss previously identified hazards and deliberate on any changes or additions to the regional hazard profile. A thorough and comprehensive revision of data for each hazard was completed as part of this plan update. Additionally, this plan has worked, as per FEMA recommendations, to merge similar hazards together with the aim of both simplifying the usage of the plan and reducing duplication of effort.

The MPC confirmed the following natural hazards that may impact the Kansas Region G:

Table 40: Kansas Region G Identified Natural Hazards

Hazard	Included in 2019 HMP	Notes
Agricultural Infestation	Yes	-
Dam or Levee Failure	Yes	-
Drought	Yes	-
Earthquake	Yes	-
Extreme Temperatures	Yes	-
Flood	Yes	-

Table 40: Kansas Region G Identified Natural Hazards

Hazard	Included in 2019 HMP	Notes
Severe Weather	Yes	Combined hail, lightning, and high and thunderstorm winds
Severe Winter Weather	Yes	Renamed from Winter Storm
Tornado	Yes	-
Wildfire	Yes	Renamed with greater focus on wildfires

The MPC confirmed the following human caused and technological hazards that may impact the Kansas Region G, as listed below:

Table 41: Kansas Region G Identified Human Caused and Technological Hazards

Hazard	Included in 2019 HMP	Notes
Cybersecurity Incident	No	New
Hazardous Materials Incident	Yes	-
Infrastructure Failure	Yes	Renamed from Utility/Infrastructure Failure
Terrorism	Yes	Now includes active shooter
Transmissible Disease	Yes	Renamed from Major Disease Outbreak

Based on discussion with the MPC, a lack of identified risk or history, and geographic improbability, numerous FEMA identified hazards such as coastal erosion and hurricane were not included in the scope of this plan. Additionally, the following natural hazards included in the State of Kansas HMP were not included for the enumerated reasons:

- **Expansive Soils:** Information from the United States Geological Service (USGS) Swelling Clays Map of the Conterminous United States indicates that the majority of Kansas Region G has soils with slight swelling potential. As such, the MPC opted to not allocate potential resources or funding to mitigate against this hazard in favor of prioritizing other hazards.
- **Land Subsidence:** A review by the MPC of available mapping indicates that there are areas of subsurface voids due to mining activity along with subsurface Karst topography (a known contributor to subsidence). However, there have been no major or impactful instances of land subsidence reported in Kansas Region G. Due to a lack of documented history, and the general lack of funding for mitigation projects, the MPC opted to not allocate potential resources or funding to mitigate against this hazard in favor of prioritizing other hazards.
- **Landslide:** There have been no recorded damaging landslide events in Kansas Region G. Due to a lack of documented history and indicated risk, the MPC opted to not allocate potential resources or funding to mitigate against this hazard in favor of prioritizing other hazards.
- **Soil Erosion and Dust:** The larger concern of soil erosion, and the associated dust caused by this erosion, is an issue that is managed by the Kansas Department of Agriculture on a statewide basis. As such, the MPC elected to remove this hazard from the plan.

4.4 Hazard Planning Significance

For the purposes of this plan, hazard planning significance refers to the relevance of the identified hazard to the jurisdictions of Kansas Region G when calculating risk and vulnerability. In order to help quantify the planning significance for a hazard, data was reviewed on two levels, federal (National Risk Index data) and local (researched plan data relevant to occurrence and vulnerability on a county and local level). This allowed for a comparison between data sets for each hazard type and allowed for a summation at the county level. It is recognized that inconsistencies in methodologies and data make it difficult to make a direct comparison across all data levels. However, as possible, collected data was translated into a unified model that accounted for any variability in data and methodologies.

The result of this assessment provides a larger scale snapshot of how the Kansas Region G jurisdictions view risk and allowed for integration of hazard data in to the HMP.

For natural hazards, data from this plan was vetted by local Emergency Managers and participating jurisdictions to ensure it matched local conditions. Additionally, the Kansas Region G utilized FEMA's National Risk Index (NRI)

which provides a method of understating high and local level jurisdictional vulnerability. FEMA's NI online tool was used to help determine local community risk for identified natural hazards in this HMP.

The risk equation behind the Risk Index includes three components, Expected Annual Loss (EAL), social vulnerability (previously discussed), and community resilience (previously discussed). The dataset supporting EAL provides estimates measured in 2022 U.S. dollars. The datasets supporting the social vulnerability and community resilience components have been standardized using a minimum-maximum normalization approach prior to being incorporated into the NRI risk calculation.

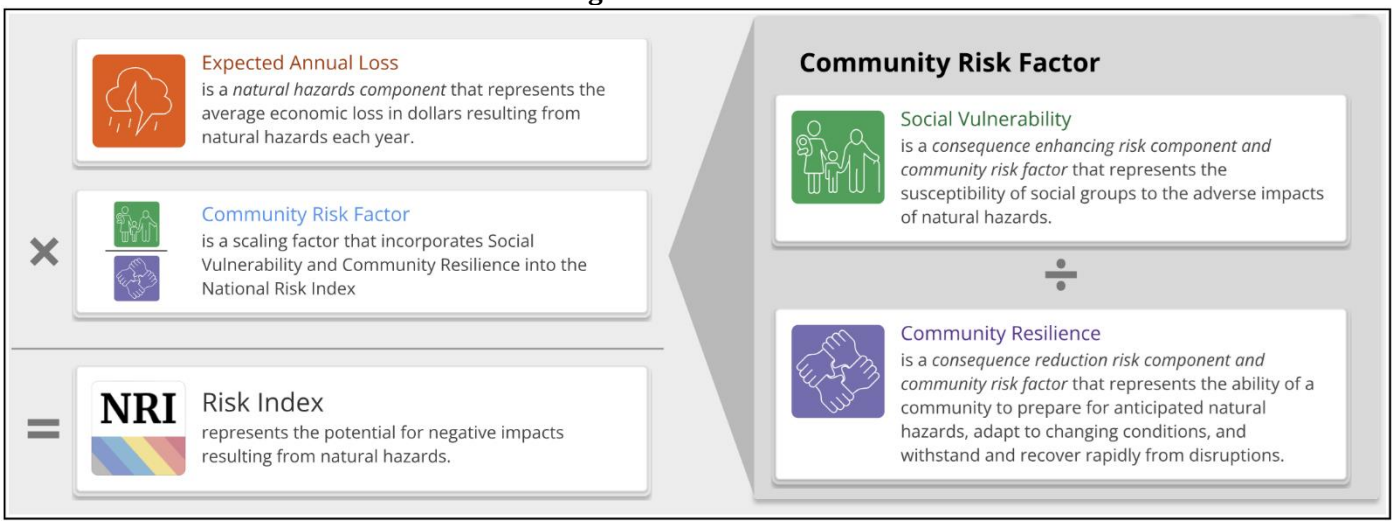
As part of the NRI, EAL represents the average economic loss in dollars resulting from a hazard each year. It quantifies loss for relevant consequence types, buildings, people, and agriculture. An EAL score and rating represent a community's relative level of expected losses each year when compared to all other communities at the same level. EAL is calculated using an equation that includes exposure, annualized frequency, and historic loss ratio risk factors. Exposure is a factor that measures the building value, population, and agriculture value potentially exposed to a natural hazard occurrence. Annualized frequency is a factor that measures the expected frequency or probability of a hazard occurrence per year. Historic loss ratio is a factor that measures the percentage of the exposed consequence type value (building, population, or agriculture) expected to be lost due to an occurrence. EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk.

To calculate Risk Index values, the NRI generates a Community Risk Adjustment to scale EAL values up or down, depending on their community risk factors, increasing with social vulnerability and decreases with community resilience. For a jurisdiction, a higher social vulnerability results in a higher Risk Index value while higher community resilience results in a lower Risk Index value.

Using these three components, Risk Index values are calculated for each jurisdiction (county and Census tract). The calculated Risk Index values form an absolute basis for measuring Risk within the NRI, and they are used to generate Risk Index percentiles and ratings across communities.

The risk equation behind the NRI is as follows:

Figure 1: FEMA NRI



For both the Risk Index and EAL there is a qualitative rating that describes the nature of a community's score in comparison to all other communities at the same level, ranging from "Very Low" to "Very High." Because all ratings are relative, there are no specific numeric values that determine the rating.

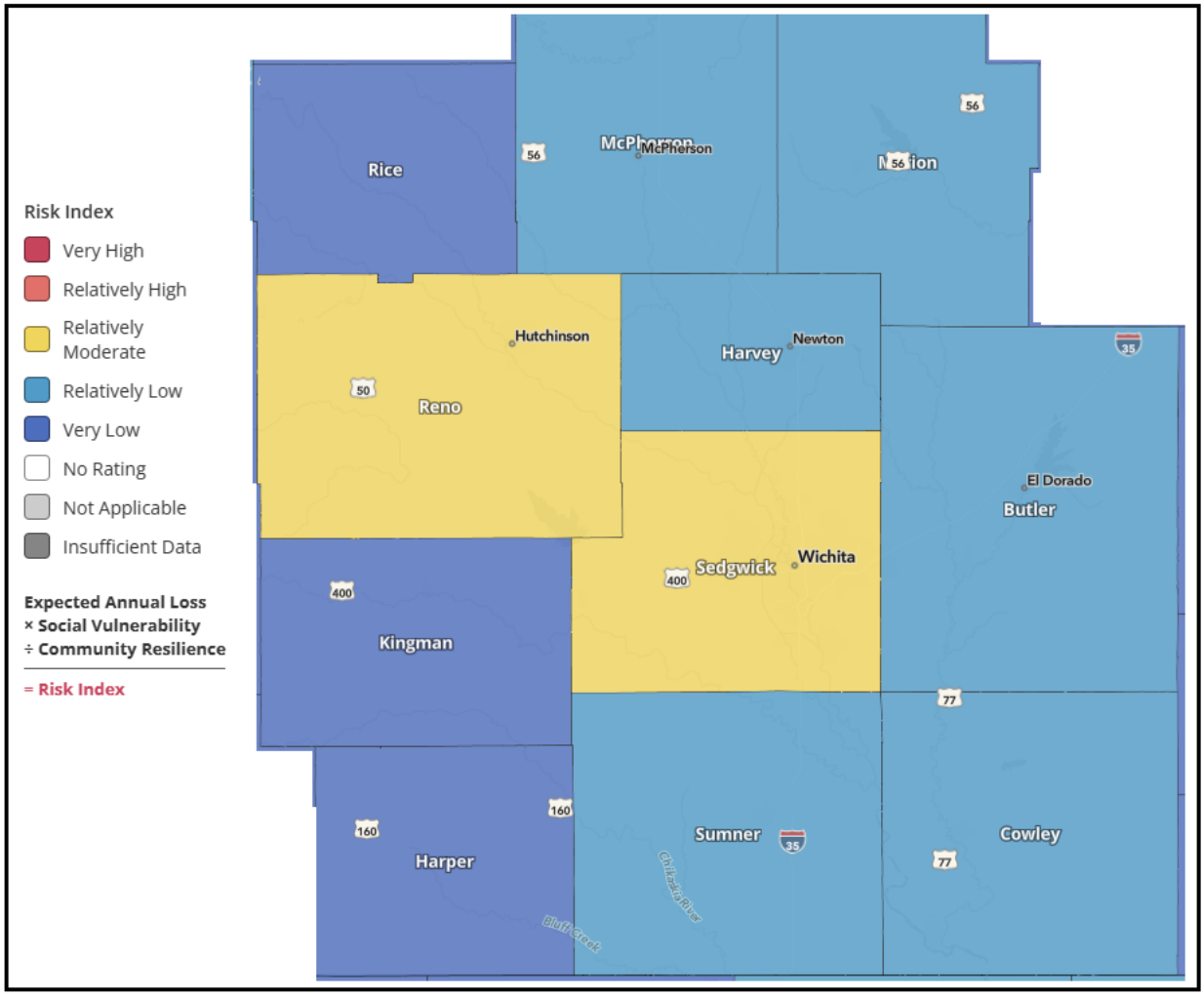
The National Risk Index provides relative Risk Index percentiles and ratings based on data for Expected Annual Loss due to natural hazards, Social Vulnerability, and Community Resilience. Separate percentiles and ratings are also provided for each component: Expected Annual Loss, Social Vulnerability, and Community Resilience. For the Risk

Index and Expected Annual Loss, percentiles and ratings can be viewed as a composite score for individually for each of the 18 hazard types.

A community's score is represented by its percentile ranking among all other communities at the same level for Risk, Expected Annual Loss, Social Vulnerability and Community Resilience. For example, if a given Census tract's Risk Index percentile for a hazard type is 84.32 then its Risk Index value is greater than 84.32% of all US Census tracts. These scores are then assigned a qualitative rating that describes the community in comparison to all other communities at the same level, ranging from “Very Low” to “Very High.” To determine Risk and Expected Annual Loss ratings, a methodology known as k-means clustering or natural breaks is applied to each value. This approach divides all communities into five groups such that the communities within each group are as similar as possible (minimized variance) while the groups are as different as possible (maximized variance). A cubed root transformation is applied to both Risk and Expected Annual Loss values before k-means clustering. Without the transformation, these values are heavily skewed by an extreme range of population and building value densities between urban and rural communities. By applying a cube root transformation, the National Risk Index controls for this characteristic and provides ratings with greater differentiation and usefulness.

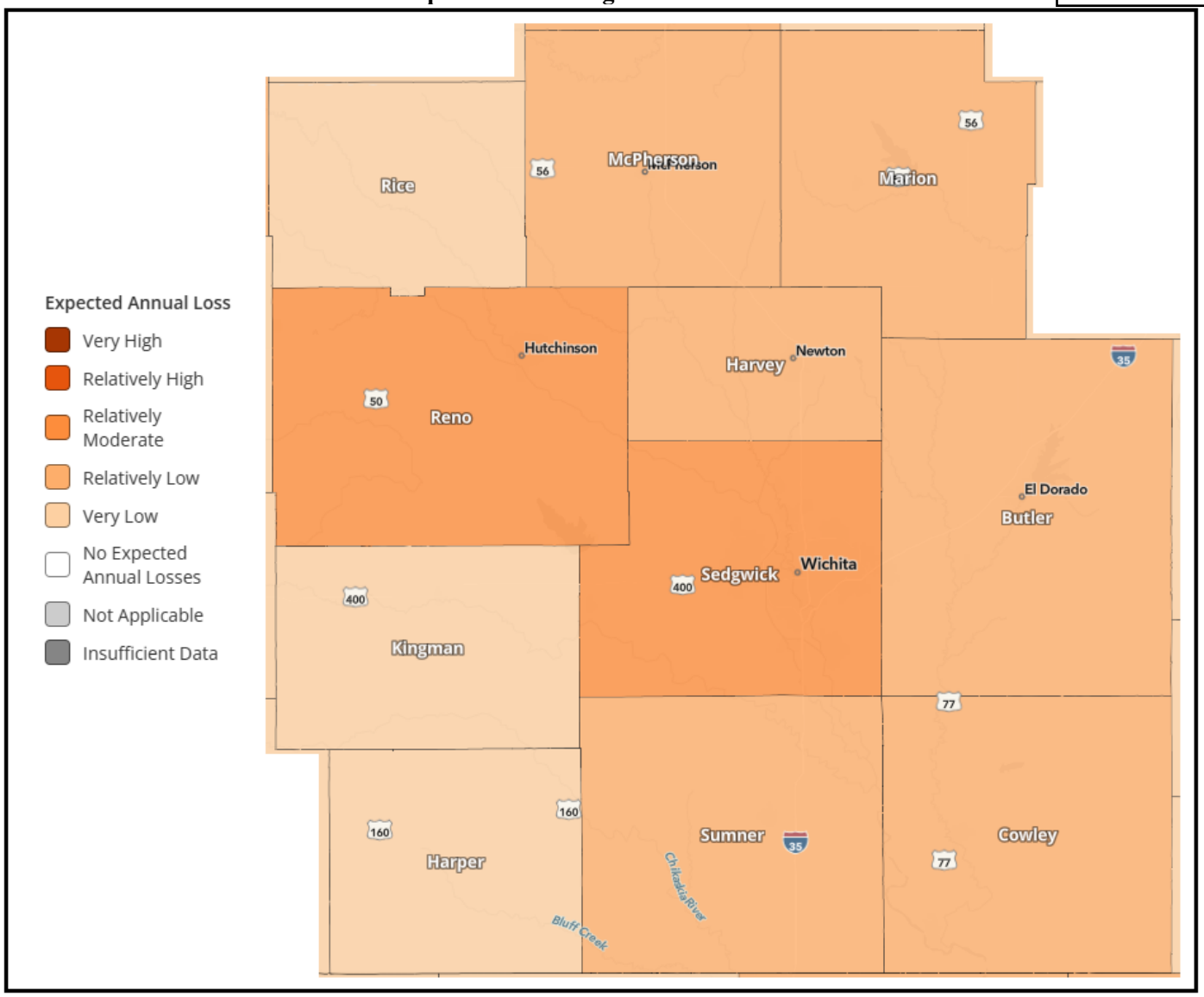
The following maps indicate the composite NRI and EAL for Kansas Region G counties:

Map 18: Kansas Region G FEMA NRI



Source: FEMA NRI

Map 19: Kansas Region G FEMA EAL



Source: FEMA NRI

The following table indicates the FEMA NRI and EAL analysis for each participating Kansas Region G county for all identified natural hazards:

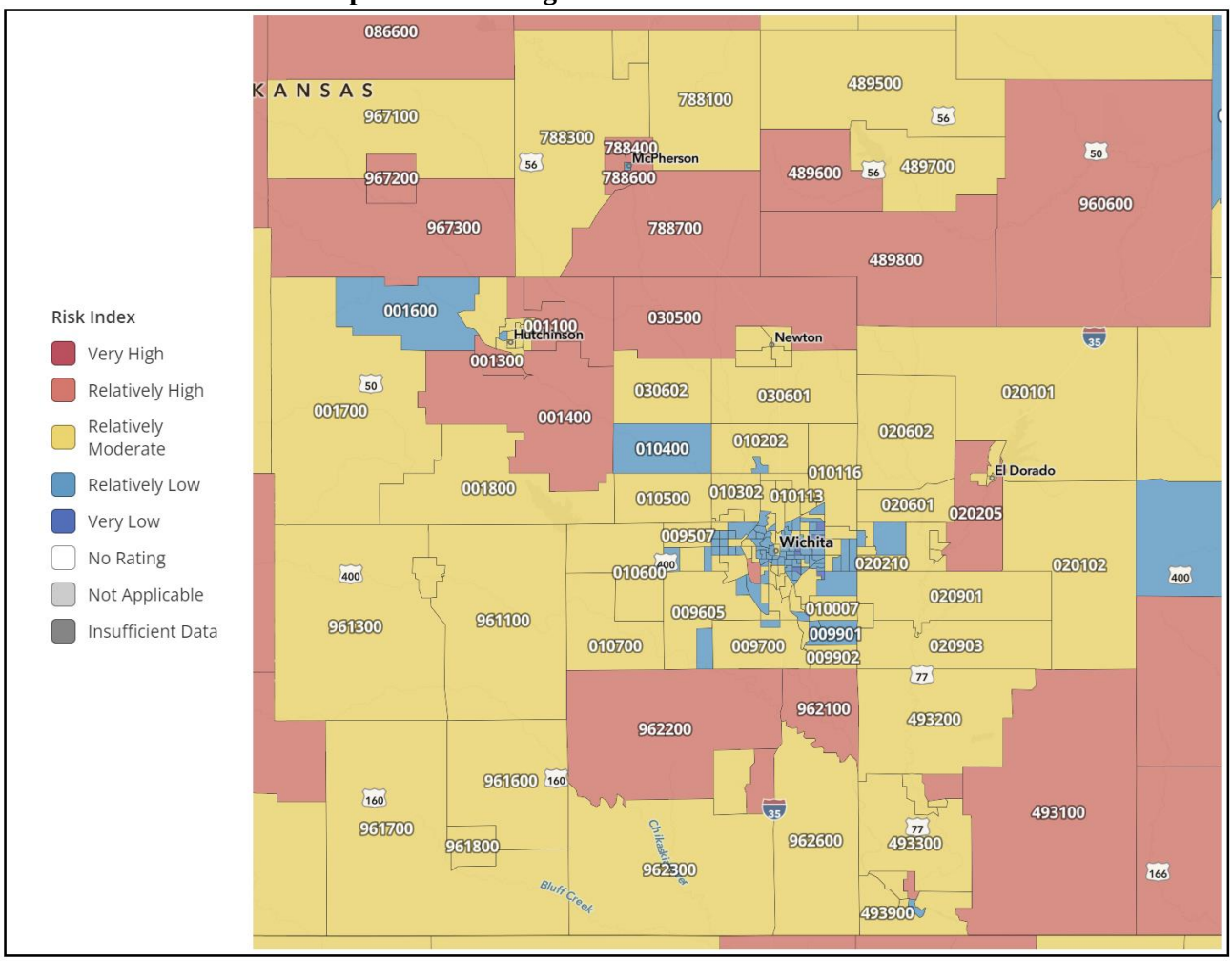
Table 42: Kansas Region G FEMA NRI and EAL for All Natural Hazards

County	Risk Index	EAL
Butler	Relatively Low	Relatively Low
Cowley	Relatively Low	Relatively Low
Harper	Very Low	Very Low
Harvey	Relatively Low	Relatively Low
Kingman	Very Low	Very Low
Marion	Relatively Low	Relatively Low
McPherson	Relatively Low	Relatively Low
Reno	Relatively Moderate	Relatively Moderate
Rice	Very Low	Very Low
Sedgwick	Relatively Moderate	Relatively Moderate
Sumner	Relatively Low	Relatively Low

Source: FEMA NRI

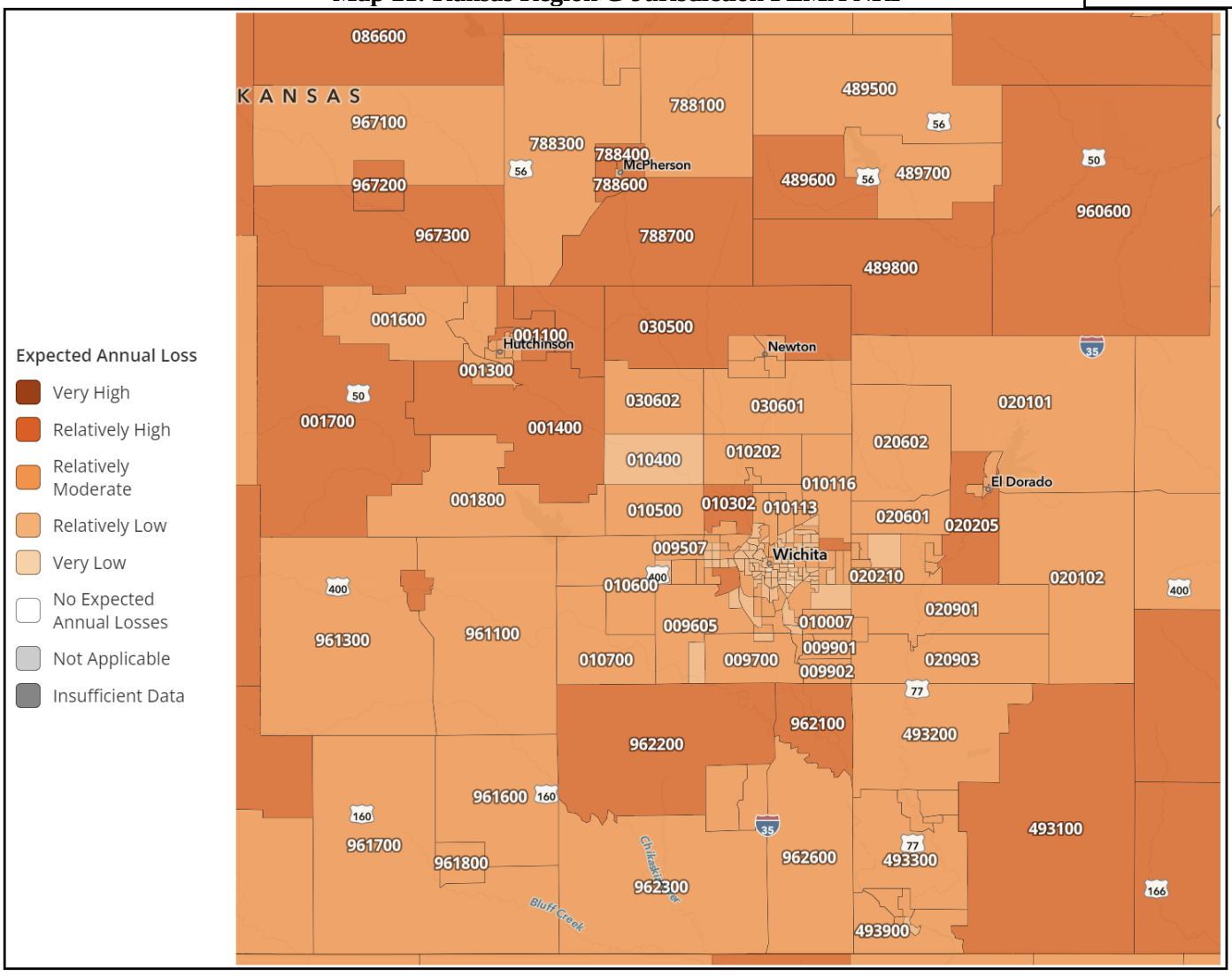
To help understand the risk and vulnerability to the identified hazards in this HMP for participating jurisdictions, risk index and EAL mapping from the FEMA NRI was run on a census tract level. As the NRI does not generate mapping for individual jurisdictions, census tract analysis is the closest analogue available to understand individual jurisdiction conditions. The following maps indicate the composite NRI and EAL for Kansas Region G census tracts:

Map 20: Kansas Region G Jurisdiction FEMA NRI



Source: FEMA NRI

Map 21: Kansas Region G Jurisdiction FEMA NRI



Source: FEMA NRI

The following hazard specific sections provide NRI and EAL mapping by census tract to visually indicate potential vulnerability and loss. Augmenting these maps, full NRI census tract data is available in Appendix C detailing specific information for each census tract in each Kansas Region G county.

As the FEMA NRI does not provide data concerning human caused and technological caused hazards the hazard rating methodology used on the 2019 Kansas Region G HMP was followed to help determine hazard planning significance for the county level. A standardized methodology, which allows for greater flexibility and room for subject matter expertise, was developed to compare different hazards' risk. Where possible, this method prioritizes hazard risk based on a blend of quantitative factors extracted from available data sources. These factors include:

- Probability of occurrence (expected frequency)
- Probable magnitude of impact (estimated strength, magnitude, onset, duration, and damage potential)
- Warning time of hazard occurrence (what type of warning can be expected)
- Duration of event (how long will hazard conditions exist)

The scores for the four hazard rating factors (probability of hazard occurrence, magnitude, warning time, and duration) were given a criticality rating from one to four (four being the highest concern or impact) and summed at a county level for each natural hazard using the following formula:

(Probability x 0.45) + (Magnitude x 0.30) + (Warning Time x 0.15) + (Dura

The levels of planning significance were identified, as follows:

Table 43: Planning Significance Rating Range

	Score Range	
Planning Significance	**Low Score**	**High Score**
High	3.0	4.0
Moderate	2.0	2.9
Low	1.0	1.9

The terms high, moderate, and low indicate the level of planning significance for each hazard, and do not indicate the potential impact of a hazard occurring. Hazards rated with moderate or high planning significance were more thoroughly investigated and discussed due to the availability of data and historic occurrences, while those with a low planning significance were generally addressed due to lack of available data and historical occurrences.

The result of this assessment provides a larger scale snapshot of how participating counties view risk and allowed for integration of hazard data in to this HMP. This allowed for a comparison between counties for each human caused and technological hazard type. It is recognized that inconsistencies in methodologies and data make it difficult to make a direct comparison, however, as possible, collected data was translated into a unified model that accounted for any variability in data and methodologies.

The following tables show the hazard planning significance of natural hazards and technological and human caused hazards for Kansas Region G.

Table 44: Kansas Region G Technical and Human Caused Hazard Planning Significance

Hazard	Cybersecurity Incident	Hazardous Materials Incident	Infrastructure Failure	Radiological Incident	Terrorism	Transmissible Disease
Butler	High	High	Moderate	Low	Low	Moderate
Cowley	High	Moderate	Moderate	Low	Low	Moderate
Harper	High	Moderate	Moderate	Low	Low	Moderate
Harvey	High	Moderate	Moderate	Low	Low	Moderate
Kingman	High	Moderate	Moderate	Low	Low	Moderate
Marion	High	Moderate	Moderate	Low	Low	Moderate
McPherson	High	Moderate	Moderate	Low	Low	Moderate
Reno	High	High	Moderate	Low	Low	Moderate
Rice	High	Moderate	Moderate	Low	Low	Moderate
Sedgwick	High	High	Moderate	Low	Low	High
Sumner	High	Moderate	Moderate	Low	Low	Moderate

Calculations for the planning significance for each human caused and technological hazard on a county basis are presented in the corresponding hazard section.

4.5 Hazard Occurrence and Assessment Data

NOAA's NCEI Storm Events Database was used as the primary source of information for previous occurrences of storm events. Full data sets were used, where applicable, for hazard occurrence and impact data. Where data sets were unavailable for a hazard, local reporting from participating jurisdictions was relied upon.

It is worth noting that damage estimates indicated by the NCEI are often artificially low. This underreporting is a result of the way the events are reported to the NCEI, often by the local and/or National Weather Service (NWS) office. When reporting an event oftentimes the NWS office does not have access to the actual damage assessment resulting from that

event. As such, the report often details a very low amount or zero-dollar amount for damages. Most of th NCEI are not associated with a federal emergency or disaster. If the event occurred at the same time as an event that was later determined to be a federal emergency or disaster, it is included with the NCEI data even if it occurred in a county not included in the federal declaration.

Data was also obtained and utilized using Hazus-MH, Version 2.2 SP1, a program administered by the FEMA used to model losses. Modelling for hazards uses Hazus analysis to estimate losses and projected impacts from historical and annualized hazard events. Hazus default data was used in the analysis, including the 2020 Census and other State and Federal government facility databases.

4.6 Jurisdictional Critical Facilities and Assets

Certain facilities and assets, such as infrastructure and community lifelines, have a net positive value on the community as they contribute to the public good by facilitating the basic functions of society. These facilities maintain order, public health, education, and help the economy function. Additionally, there are infrastructure and facilities integral to disaster response and recovery operations. Conversely, some infrastructure and facilities are of extreme importance due to the negative externalities created when they are impacted by a disaster. What fits these definitions will vary slightly from community to community, but the definitions remain as a guideline for identifying critical facilities and infrastructure. Kansas Region G maintains critical facility details under separate cover for security purposes. For this HMP, it is assumed that all critical facilities are at equal risk to non-point hazard occurrence but may have varying risk to point hazard occurrence (dam and levee failure and flood). Data concerning critical facilities potentially impacted by these point hazards, as available, is detailed under the respective hazard section.

Each hazard section provides a discussion on potentially vulnerable community lifelines. Community lifelines enable the continuous operation of critical government and business functions and are essential to human health and safety or economic security, and include safety, health, energy, communication, transportation, and water systems.

4.7 Hazard Profiles

Each identified hazard is profiled in the subsequent sections, with the level of detail varying based on available information. Sources of information are cited in the detailed hazard profiles below. For hazards that have a higher chance of occurrence for specific jurisdictions throughout Kansas Region G, a discussion is provided as to the differing levels of potential vulnerability. All other hazards have been determined to have an equal chance of occurrence for all participating jurisdictions.

The following hazards are presented in alphabetical order, and not by planning significance, for ease of reference. Please note that natural hazards are presented in order first, followed by human caused and technological hazards.

4.8 Agricultural Infestation

4.8.1 Hazard Description

Agricultural infestation is the naturally occurring infection of vegetation, crops or livestock with insects, vermin (to include lice, roaches, mice, coyote, fox, fleas, etc.), or diseases that render the crops or livestock unfit for consumption or use. The levels and types of agricultural infestation will vary according to many factors, including cycles of heavy rains and drought. A certain level of agricultural infestation is normal; however, infestation becomes an issue when the level of an infestation escalates suddenly, or a new infestation appears, overwhelming normal control efforts. Infestation of crops or livestock can pose a significant risk to state and local economies due to the dominance of the agricultural industry.

Onset of agricultural infestation can be rapid. Controlling an infestation's spread is critical to limiting impacts through methods including quarantine, culling, premature harvest and/or crop destruction when necessary. Duration is largely affected by the degree to which the infestation is aggressively controlled but is generally more than one week. Maximizing warning time is also critical for this hazard and is most affected by methodical and accurate monitoring and reporting of livestock and crop health and vigor, including both private individuals and responsible agencies.

4.8.2 Location & Extent

Of key concern regarding this hazard is the potential introduction of a rapid and economically devastating foreign animal disease, including Foot and Mouth disease and Bovine Spongiform Encephalopathy disease. Because Kansas is a major cattle state, with cattle raised locally as well as imported into the state, the potential for highly contagious diseases such as these is a continuing, significant threat. The loss of production, death of animals, and other lasting problems resulting from an outbreak could cause continual and severe economic losses, as well as widespread unemployment.

Of particular concern are Confined Animal Feeding Operations (CAFOs) facilities, defined as facilities with 300 or more animal units. The CAFO facilities are regulated by the Kansas Department of Health & Environment (KDHE), Bureau of Water, and Livestock Waste Management. The CAFO includes beef, dairy, sheep, swine, chicken, turkey, and horses. The following is a list of the number of CAFOs per county, using the latest available data, in Kansas Region G:

- Butler County: 122
- Cowley County: 31
- Harper County: 12
- Harvey County: 89
- Kingman County: 30
- Marion County: 227
- McPherson County: 103
- Reno County: 152
- Rice County: 31
- Sedgwick County: 75
- Sumner County: 28

Knowing where diseased and at-risk animals are, where they've been and when, is important to ensuring a rapid response when animal disease events take place. The Kansas Department of Agriculture (KDA), Division of Animal Health monitors and reports on animal reportable diseases. Producers are required by state law to report any of the reportable animal diseases.

Kansas Region G is also susceptible to various forms of crop infestations and disease. The following major crops are particularly susceptible to infestation:

- Wheat: Kansas Region G is part of the Great Plains Wheat Belt. Wheat is susceptible to infesta including insects like the Hessian fly, aphids, and wheat stem sawflies, as well as diseases like wheat rust.
- Corn and Sorghum: Staple crops, they are susceptible to infestations by pests such as corn rootworms, corn borers, and aphids. Sorghum may also be affected by sugarcane aphids.
- Cotton: Can be susceptible to infestations by pests like cotton bollworms and spider mites.
- Soybeans: Susceptible to infestations by pests such as soybean aphids, soybean cyst nematodes, and various caterpillar species.

The region's farmers also lose a significant amount of crops each year as a result of wildlife foraging. This can be particularly problematic in areas where natural habitat has been diminished or in years where weather patterns such as early/late frost deep snow, or drought has caused the wild food sources to be limited.

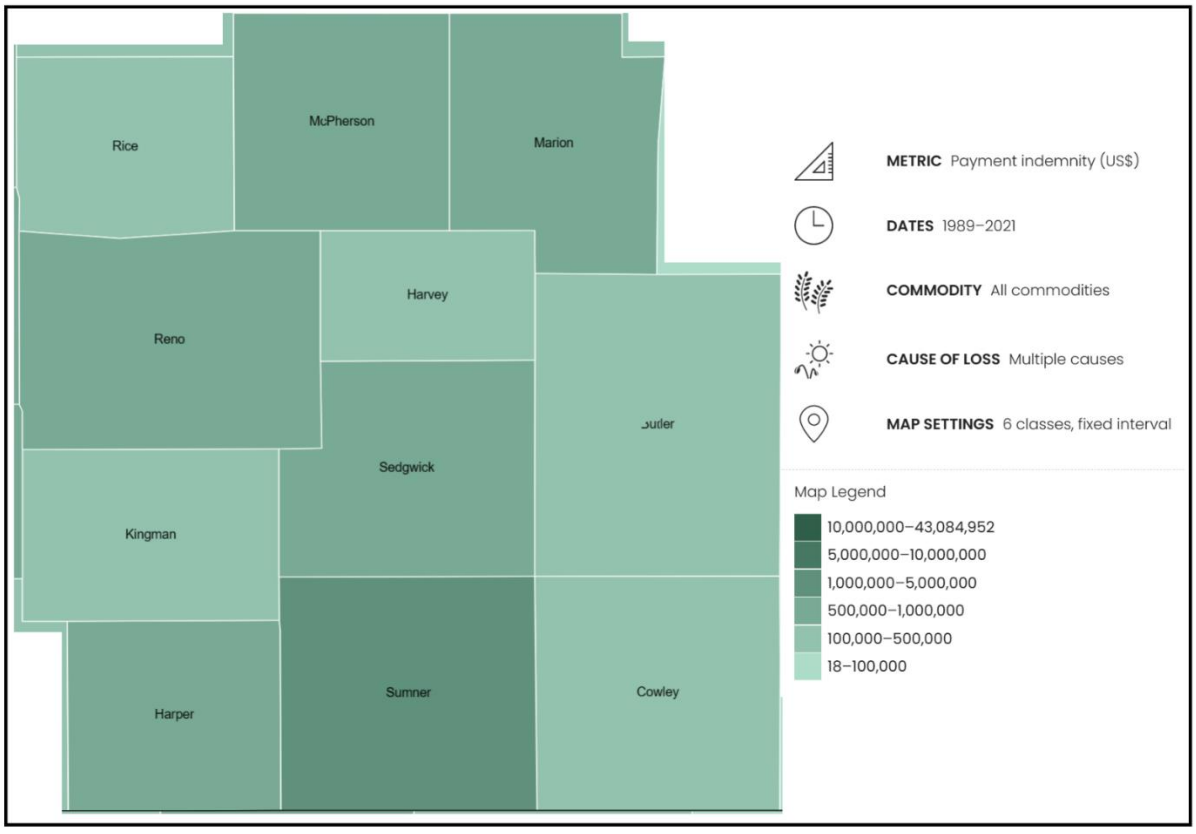
Trees within Kansas Region G are also susceptible to a variety pest and disease including:

- Emerald Ash Borer
- Pine Wilt
- Oak Wilt
- Dutch Elm Disease

4.8.3 Previous Occurrences

Infestation events can cause significant agricultural impacts. The following map from the United States Department of Agriculture details total agricultural losses, by county, due to infestation conditions from 1989 to 2021:

Map 22: Agricultural Losses Due to Infestation Events, 1989 to 2021



Source: USDA

4.8.4 Probability of Future Incidents

The probability of agricultural infestation in Kansas Region G can vary depending on a variety of factors. These factors include:

- Crop Types: The types of crops grown in Southeast Kansas play a significant role in determining the risk of infestation. Different crops are susceptible to different pests and diseases.
- Climate: Climate conditions, including temperature and humidity, can influence the prevalence of pests and diseases. Warmer and wetter conditions may be more conducive to certain infestations, while dry conditions may reduce the risk.
- Geography: Geographic features, such as proximity to bodies of water, forests, or neighboring agricultural regions, can affect the likelihood of infestations. Certain pests and diseases may be more prevalent in specific geographical areas.
- Crop Management Practices: The adoption of pest management practices, including crop rotation, the use of resistant crop varieties, and the application of pesticides, can impact the probability of infestation. Sustainable and integrated pest management practices can help mitigate infestation risks.
- Seasonal Variability: Infestation risks can vary from season to season. Some years may see higher infestation levels due to factors like weather patterns or the cyclical nature of pest populations.
- Migration of Pests: The movement of pests from other regions or neighboring states can introduce infestation risks. Monitoring and surveillance are essential to detect and respond to potential threats.
- Disease Vectors: The presence of disease vectors, such as certain insects or animals that can transmit diseases to crops or livestock, can increase the likelihood of infestations.
- Biosecurity Measures: Measures taken to prevent the introduction and spread of pests and diseases, such as quarantine procedures and biosecurity protocols, can help reduce the probability of infestation.

The Kansas Forest Service and Kansas Department of Agriculture have identified the following as emerging agricultural infestation threats:

- Thousand Cankers Disease of Walnut: Caused by a combination of a fungus (Geosmithia morbida) and the walnut twig beetle (Pityophthorus juglandis). The walnut twig beetles carry fungal spores, and when they tunnel through the outer bark into the tree the fungus is transmitted during gallery construction. The fungus kills an area under the bark and the areas of dead tissue are called cankers. When the walnut twig beetles are abundant, numerous cankers can form and coalesce to girdle twigs and branches, restricting movement of water and nutrients. Black walnut (Juglans nigra), the most valuable native species to the state, is the most susceptible of the Juglans species to this disease.
- Asian Longhorned Beetle: Feeds on a wide variety of hardwood tree species that are native or planted in Kansas. It kills trees by creating large tunnels as larvae causing branches or stems to break and eventually lead to tree death. Because this beetle is not native to North America, it has no known natural enemies, and Kansas trees have low resistance to this pest. It has not been detected in Kansas. It has been stated that if the beetle were to become established in the US, it could become one of the most destructive and costly pests ever to industry, urban neighborhoods, and natural forests.
- Gypsy Moth: Moth has been infested the northeast, resulting in massive defoliation of shade, fruit, and ornamental trees as well as hardwood forests. Caterpillars devour the leaves of many hardwood tree species and shrubs that can turn a usually lush summer scene into one of winter.
- Asian Gypsy Moth: A native species of Asia, first detected in Washington in 1991. Ongoing and completed eradication of various sites in the U.S. have so far prevented the establishment of this generalist feeder. This moth is much more destructive if it became established and spread east because of its broad host range and the females are active fliers due to their larger wingspan.
- Sudden Oak Death: In June 2019, the causal agent of Sudden Oak Death, Phytophthora ramorum, was detected in rhododendrons originating from Park Hill Plants nursery in Oklahoma, and plants from that nursery were shipped to 60 Walmart stores across Kansas and one Home Depot store in Pittsburg, Kansas. Sudden Oak Death is caused by Phytophthora ramorum, a water mold pathogen. The pathogen is also the cause of the Ramorum Leaf Blight, Ramorum Dieback and Phytophthora Canker Diseases. This pathogen is considered especially dangerous because it affects a wide variety of trees, shrubs and plants and there is no known cure.
- Tomato Brown Rugose Fruit Virus:Tomato Brown Rugose Fruit Virus is a newly discovered tobamovirus that has been found, but not yet established, in the United States. Its two main hosts are tomatoes and peppers,

causing concern for growers of these plants. The virus is mechanically transmitted, mean transmitted from one plant to the next on contaminated tools and equipment, and workers handling many plants in a greenhouse.

It's important to note that agricultural infestations are a dynamic and complex issue, and the probability of infestation can vary from year to year. Farmers and agricultural professionals in Kansas Region G typically rely on agricultural extension services, research institutions, and government agencies to provide information, guidance, and resources for managing and mitigating infestation risks. Proactive pest monitoring and management practices are essential for minimizing the impact of infestations on crop yields and agricultural productivity in the region.

4.8.5 Projected Changes in Hazard Location, Intensity, Frequency, and Duration

Climate change can have several impacts on agricultural infestation in Kansas Region G, affecting the types and prevalence of pests and diseases that farmers face, and can include:

- Increased Pest Populations: Warmer temperatures and milder winters can promote the survival and reproduction of certain pests. In Kansas Region G, this may include insects like aphids, corn borers, and various types of beetles. Higher pest populations can lead to more frequent and severe infestations, potentially reducing crop yields.
- Altered Pest Behavior: Changes in temperature and climate patterns can influence the behavior and life cycles of pests. Some insects may emerge earlier in the season or have more generations per year, increasing the likelihood of damage to crops.
- Extended Growing Seasons: Longer growing seasons, a consequence of warming temperatures, can provide pests with additional time to feed on crops. This extension can lead to greater crop damage if effective pest management strategies are not in place.
- Shifts in Pest Distribution: Climate change can result in shifts in the geographic distribution of pests. Pests that were once uncommon in Kansas Region G may become more prevalent as temperatures become more suitable for their survival and reproduction.
- Altered Disease Dynamics: Climate change can influence the prevalence and distribution of plant diseases. Warmer and wetter conditions can create favorable environments for certain pathogens, such as fungi and bacteria, increasing the risk of disease outbreaks in crops.
- Increased Risk of Invasive Species: Changes in temperature and climate patterns can facilitate the introduction and establishment of invasive species. These species may outcompete native pests and diseases, posing new challenges for farmers.
- Water Stress: Climate change can result in more variable precipitation patterns, including more frequent droughts. Water-stressed crops may be more susceptible to pest infestations, as their natural defenses may be compromised.
- Pesticide Resistance: As pest populations adapt to changing conditions, they may develop resistance to pesticides more rapidly. This can reduce the effectiveness of chemical pest control methods.
- Impact on Beneficial Organisms: Climate change can also affect the populations and behaviors of beneficial organisms, such as natural predators and parasites of pests. Disruptions in these natural control mechanisms can exacerbate infestation problems.

4.8.6 Vulnerability and Impact

As illustrated by the following table from the USDA 2017 Census of Agriculture, Kansas Region G has a large agricultural base susceptible to disease and pest infestation:

Table 45: Kansas Region G County Level Agricultural Data

Jurisdiction	Number of Farms	Farm Acreage	Market Value of Products Sold
Butler County	1,471	798,408	$180,941,000
Cowley County	921	563,453	$96,515,000
Harper County	477	489,183	$93,148,000
Harvey County	752	343,952	$139,975,000

Table 45: Kansas Region G County Level Agricultural Data

Jurisdiction	Number of Farms	Farm Acreage	Market Value of Products Sold
Kingman County	740	516,728	$78,779,000
Marion County	892	567,828	$146,508,000
McPherson County	988	558,094	$155,036,000
Reno County	1,552	788,966	$216,729,000
Rice County	470	463,294	$235,547,000
Sedgwick County	1,360	496,568	$118,918,000
Sumner County	953	757,777	$155,671,000

Source: USDA National Agricultural Statistics Service

Agricultural vulnerabilities can vary depending on the type of infestation, the crops or livestock affected, and instituted control measures, and include:

- Crop and Livestock Losses: One of the most immediate and significant vulnerabilities is the potential for crop and livestock losses. Pests, diseases, and invasive species can cause substantial damage to crops, resulting in reduced yields and economic losses.
- Financial Losses: Infestations can lead to increased production costs, including expenses for pest control measures, pesticides, and treatments. These added costs can strain the financial resources of farmers and agricultural businesses.
- Food Insecurity: Crop and livestock losses due to infestations can threaten food security by reducing the availability of food products.
- Economic Instability: Agricultural infestations can lead to economic instability in rural communities heavily dependent on farming. Reduced incomes for farmers can have cascading effects on local economies, impacting businesses and jobs in related industries.

Potential impacts on the agricultural community include:

- Reduced Crop Yields: One of the most direct impacts of infestation is a decrease in crop yields. Pests, diseases, and invasive species can damage or destroy plants, resulting in smaller harvests.
- Crop Quality Reduction: Infestations can also reduce the quality of crops by causing physical damage, deformities, or contamination. This can affect the marketability and value of agricultural products.
- Livestock Health Issues: Infestations can lead to health problems in livestock, including weight loss, reduced productivity, and increased susceptibility to diseases. Livestock infestations can also impact meat and dairy quality.
- Trade Barriers: Agricultural infestations can lead to trade restrictions and barriers. Countries may impose import bans or stringent regulations on products from regions affected by certain pests or diseases to prevent their spread.
- Increased Chemical Use: To combat infestations, farmers may resort to increased pesticide or chemical use. This can have adverse effects on the environment and human health, as well as contribute to pesticide resistance.
- Disruption of Farming Practices: Infestations can disrupt normal farming practices, leading to delays in planting or harvesting, increased labor requirements, and a need for specialized pest management.

Efforts to mitigate the vulnerabilities and impacts of infestations include integrated pest management strategies, research and monitoring, early detection systems, education and training for farmers, and sustainable farming practices. Addressing infestations requires a multi-faceted approach that considers economic, environmental, and food security factors.

In addition, an agricultural infestation can have significant impacts on the people in an impacted agricultural community, affecting their livelihoods, health, and well-being, and include:

- Reduced Income: For farmers and agricultural workers, the most immediate impact of infest reduced income due to crop or livestock losses.
- Increased Health Risks: Infestations involving disease vectors can increase the risk of vector-borne diseases.
- Migration: In some cases, people may be forced to migrate in search of better economic opportunities due to infestation-related job losses.
- Increased Healthcare Costs: Infestations that result in human health issues can lead to increased healthcare costs for individuals and communities, putting additional financial strain on affected populations.
- Psychological Stress: Infestations can cause psychological stress and anxiety, particularly for farmers and agricultural workers who face uncertainty and financial pressures due to crop or livestock losses.

Agricultural infestations can have several environmental impacts, often interconnected with agricultural practices, and can include:

- Pesticide Use: To combat infestations, farmers may resort to increased pesticide use. The application of pesticides can result in chemical runoff into nearby water bodies, leading to water pollution. This pollution can harm aquatic ecosystems, affecting fish and other aquatic species.
- Loss of Biodiversity: Infestations can alter the composition of plant and animal species in agricultural areas. The introduction of invasive species or the suppression of native vegetation can lead to reduced biodiversity, impacting the health of ecosystems.
- Soil Erosion: In some cases, infestations can weaken or kill plants, leaving soil exposed to erosion by wind and water. Soil erosion can degrade soil quality, reduce agricultural productivity, and contribute to sedimentation in water bodies.
- Habitat Changes: Changes in land use and agricultural practices prompted by infestations can lead to alterations in habitat structure and availability. These changes can affect wildlife populations, including species that rely on specific habitats within agricultural landscapes.
- Water Quality Impacts: Infestations can indirectly affect water quality through their influence on land management. Runoff from infested areas, along with pesticide residues and sediment, can compromise water quality and lead to issues such as algal blooms and oxygen depletion in water bodies.
- Impact on Pollinators: Some agricultural pests and diseases can have detrimental effects on pollinators, including bees and butterflies. Reduced pollinator populations can harm the reproduction of flowering plants, including many agricultural crops.
- Secondary Effects on Non-Target Species: Pest control measures, such as the use of pesticides, may have unintended consequences by affecting non-target species, including beneficial insects, birds, and mammals.
- Impact on Natural Pest Control: Some infestations can disrupt natural pest control mechanisms by altering the populations and behaviors of beneficial organisms, such as predators and parasitoids. This can lead to increased reliance on chemical pest control.

Agricultural infestation is not expected to have any impact on Kansas Region G county assets.

Potentially Vulnerable Community Lifelines

Agricultural infestation, whether caused by pests, diseases, or invasive species, would likely have minimal impact on community lifelines, such as safety, health, energy, communication, transportation, and water systems. It is possible that reduced crop yields could contribute to short term food shortages, affecting the overall food security of a community. This can lead to higher temporary dependence on external sources for food, which would likely be unimpacted by an infestation event.

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 46: Agricultural Infestation Consequence Analysis

Subject	Potential Impacts
Health and Safety of the Public	Infestations involving disease vectors can increase the risk of vector-borne diseases.
Health and Safety of Responders	Impact would be minimal as no first response effort is anticipated.
Continuity of Operations	Kansas counties maintain continuity plans which can be enacted as necessary based on the situation. Agricultural infestation is not expected to require a plan activation.
Property, Facilities, and Infrastructure	Impact would be minimal.
Impact on Environment	Loss of biodiversity, habitat changes water quality degradation, loss of pollinators, and secondary effects on non-target species from increased pesticide usage.
Economic Conditions	Impacts to the economy will depend on the severity of the infestation. The potential for economic loss to the community could be if the infestation is hard to contain, eliminate, or reduce. Impact could be minimized from crop insurance payments.
Public Confidence in Governance	Confidence could be in question depending on timeliness and steps taken to warn the producers and public and treat/eradicate the infestation.

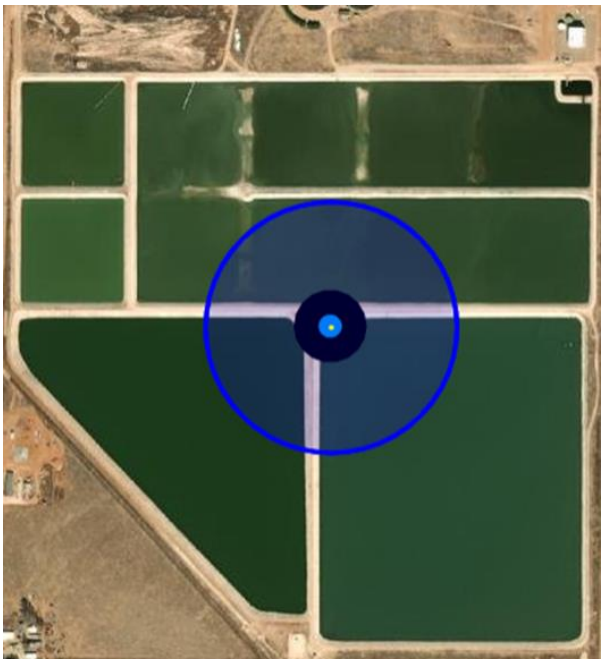
4.8.7 Jurisdictional Risk and Vulnerability

In Kansas, agricultural infestation is considered a state concern due to the heavily agricultural nature of the economy. Data assessing agricultural infestation risk is often presented at the county or state level, and not by individual jurisdictions. As such, a local jurisdiction risk assessment could not be completed. However, agricultural infestation is not expected to have any impact on Kansas Region G jurisdictional infrastructure or facilities.

4.9 Dam or Levee Failure

4.9.1 Hazard Description

A dam is a barrier across flowing water that obstructs, directs, or slows down the flow, often creating a reservoir, lake, or impoundment. Most dams have a section called a spillway or weir, over or through, which water flows, either intermittently or continuously. Dams commonly come in two types, embankment (the most common) and concrete (gravity, buttress, and arch), as well as sizes. They also serve a number of purposes and provide essential benefits, including drinking water, irrigation, hydropower, flood control, and recreation.



Large or small, dams have a powerful presence that is frequently overlooked until a failure occurs. Dams fail in two ways, a controlled spillway release done to prevent full failure, or the partial or complete collapse of the dam itself. In each instance, an overwhelming amount of water, and potentially debris, is released. Dam failures are rare, but when they do occur, they can cause loss of life and immense damage to property, critical infrastructure, and the environment.

Possible reasons for dam failure include but are not limited to:

- Sub-standard construction materials/techniques
- Spillway design error
- Geological instability caused by changes to water levels during filling or poor surveying
- Sliding of a mountain into the reservoir
- Poor maintenance, especially of outlet pipes
- Human, computer, or design error
- Internal erosion, especially in earthen dams
- Earthquakes
- Terrorism

There are three classifications of dam failure, hydraulic, seepage, and structural. The following is an explanation of each these failure classifications:

- **Hydraulic:** This failure is a result of an uncontrolled flow of water over and around the dam structure as well as the erosive action on the dam and its foundation. The uncontrolled flow causing the failure is often classified as wave action, toe erosion, or gullying. Earthen dams are particularly susceptible to hydraulic failure because earthen materials erode more quickly than other materials, such as concrete and steel. This type of failure constitutes approximately 40% of all dam failures.
- **Seepage:** Seepage is the velocity of an amount of water controlled to prevent failure. This occurs when the seepage occurs through the structure to its foundation, where it begins to erode within. This type of failure accounts for approximately 4% of all dam failures.
- **Structural:** A failure that involves the rupture of the dam or the foundation by water movement, earthquake, or sabotage. When weak materials construct dams (large, earthen dams) are the primary cause of this failure. Structural failure occurs with approximately 30% of dam failures.

A levee is a man-made structure built to control or prevent the overflow of water from rivers, lakes, or other bodies of water. Levees are typically earthen embankments or walls constructed along the banks of water bodies to provide protection against flooding. They serve as barriers to keep water within its natural or artificial channels, protecting

adjacent land areas from inundation. Levees typically have a sloping side that faces the water (riverside) and a side facing away from the water (landside). They may also include features like berms, floodwalls, and floodgates to enhance their effectiveness in flood control. Levee failures can occur in various ways, and they are typically classified into different types based on the mechanism or cause of the failure, and include:

- **Overtopping:** Occurs when floodwaters rise above the crest or top of the levee. This can happen when the floodwater volume exceeds the levee's design capacity or when the levee has been poorly maintained or constructed. Overtopping can erode the levee's surface and eventually lead to breaches.
- **Erosion:** Occurs when the flowing water erodes the soil or materials comprising the levee. Erosion can result from the force of the water or from seepage of water through the levee's foundation, which can carry soil particles away and weaken the structure.
- **Seepage:** Occurs when water infiltrates the levee through the soil or the levee's foundation. Over time, seeping water can weaken the structural integrity of the levee. Piping, a type of seepage failure, is particularly concerning, as it involves the formation of tunnels or pipes within the levee through which water flows, further eroding the structure.
- **Slumping or Landslide:** Occurs when a portion of the levee's embankment or slope collapses. This can result from saturated soils, unstable materials, or rapid changes in water levels. Slumping or landslides can lead to breaches in the levee.
- **Breach:** A complete failure of the levee, resulting in a significant opening or hole through which floodwaters can freely flow into protected areas. Breaches can occur due to any combination of failure mechanisms, and they can be sudden and catastrophic.
- **Design or Construction Errors:** Levee failures can also occur due to inadequate height or width, poor materials, or improper compaction during construction. These errors may not become apparent until the levee is put to the test by a flood event.

4.9.2 Location & Extent

The KDA Division of Water Resources (KDA-DWR) is responsible for the review and approval of plans for constructing new dams and for modifying existing dams, ensuring quality control during construction, and monitoring dams that, if they failed, could cause loss of life, or interrupt public utilities or services. The KDA-DWR regulates the construction, operation, and maintenance of all dams or other water obstructions, with the exception of federal reservoirs.

The Obstructions in Streams Act (K.S.A 82a-303b) requires owners of high hazard (class C) and significant hazard dams (class B) dams to have a qualified engineer conduct periodic dam inspections. For high hazard dams, the inspection must be done every three years. For significant hazard dams, an inspection must be done every five years. Dam Hazard Classifications are detailed in the following table:

Table 47: Dam Hazard Potential Classification

Hazard Potential	Class	Definition	Inspection Timeline	Number of Regional Dams in Category
High	C	Failure or mis-operation will result in probable loss of life.	Three Years	44
Significant	B	Failure or mis-operation results in no probable loss of life but can cause major economic loss, disruption of lifeline facilities or impact the public's health, safety, or welfare.	Five Years	22
Low	A	Failure or mis-operation results in no probable loss of human life and low economic losses.	Not inspected, downstream conditions are reassessed to determine if conditions have changed to necessitate reclassification.	571

Source: KDA-DWR

The following table details dams by county by hazard potential:

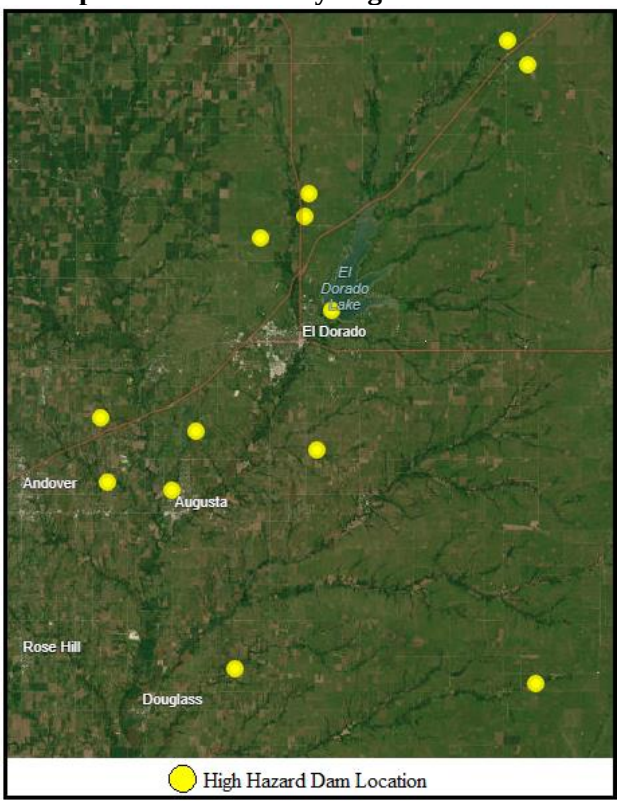
Table 48: Kansas Region G Significant and High Hazard Dams by County

County	Low	Significant	High
Butler	217	10	13
Cowley	118	7	6
Harper	22	0	0
Harvey	22	2	8
Kingman	29	0	1
Marion	26	1	1
McPherson	25	0	3
Reno	18	0	1
Rice	17	0	0
Sedgwick	68	1	10
Sumner	9	1	1

Source: KDA-DWR

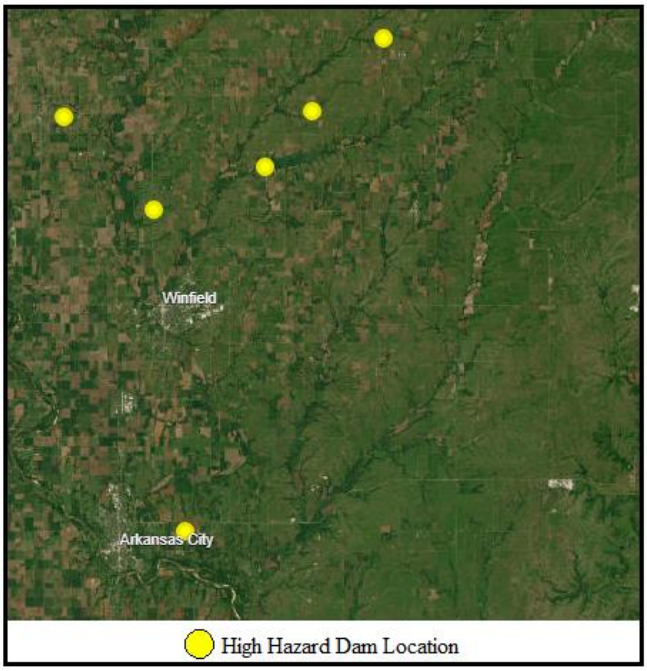
The following maps, from the National Inventory of Dams, indicates the location of high hazard dams within Kansas Region G:

Map 23: Butler County High Hazard Dams



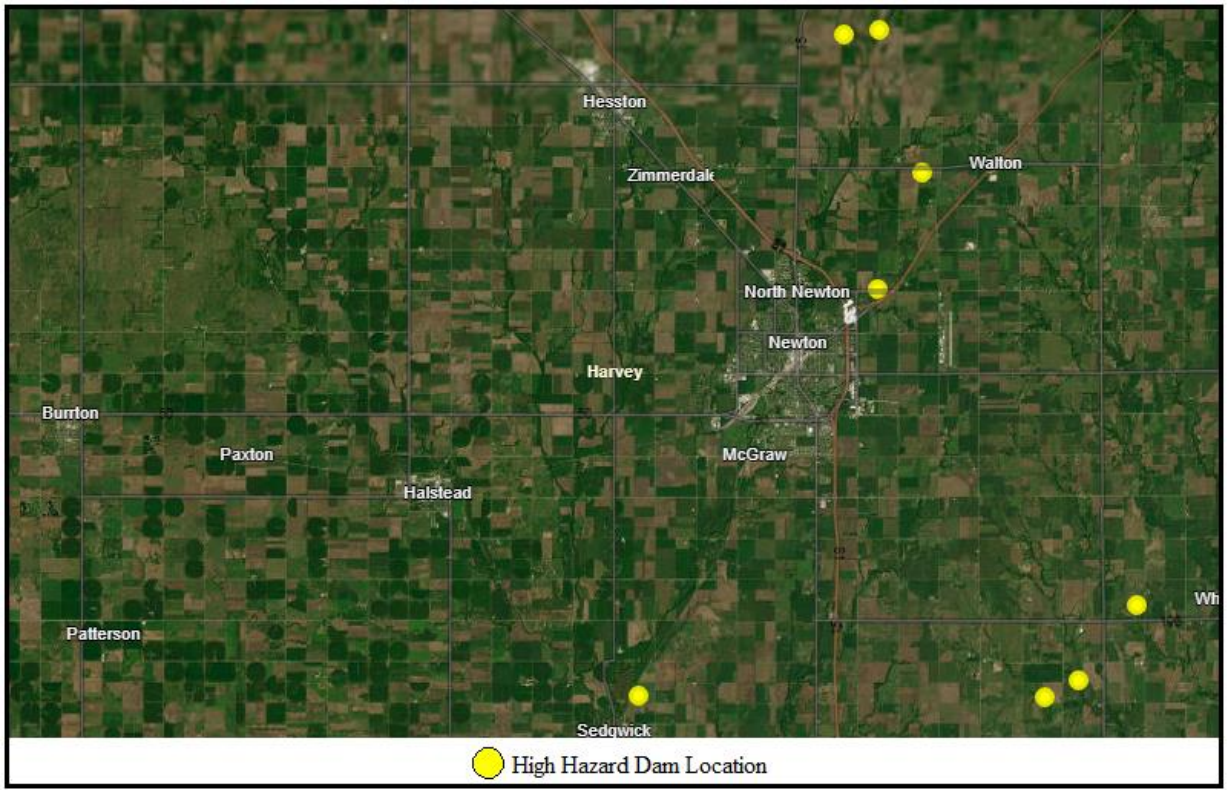
Source: National Inventory of Dams

Map 24: Cowley County High Hazard Dams



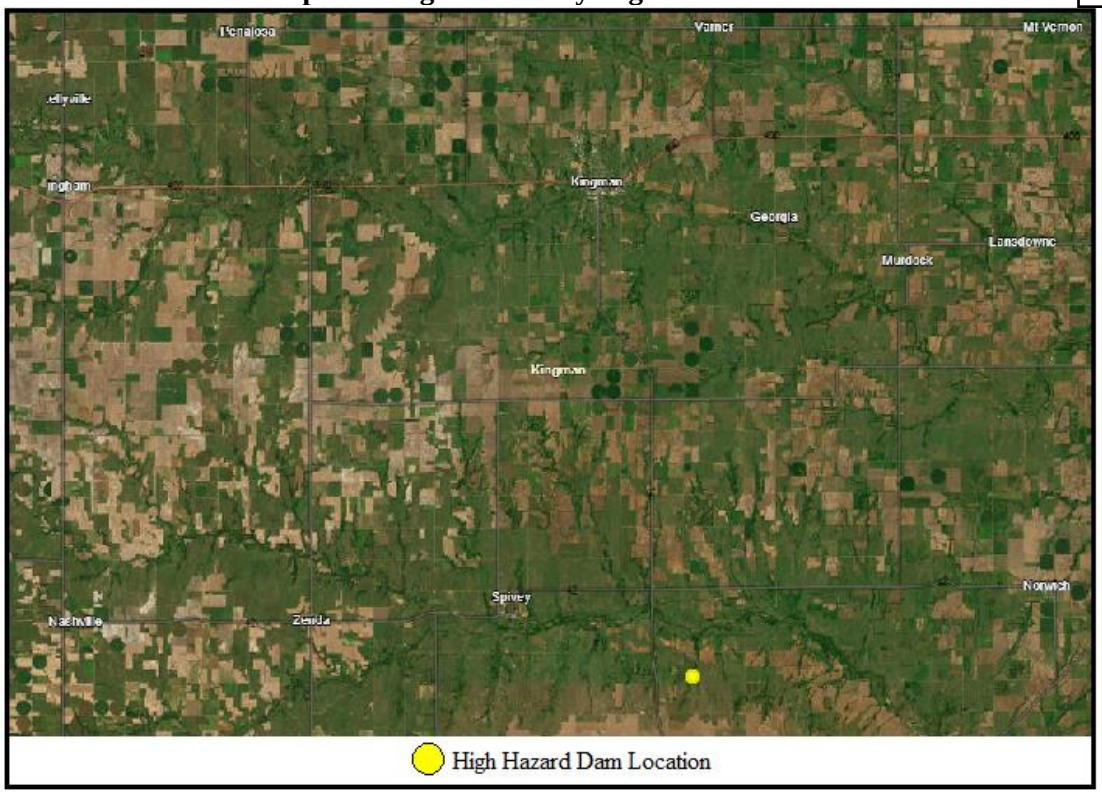
Source: National Inventory of Dams

Map 25: Harvey County High Hazard Dams



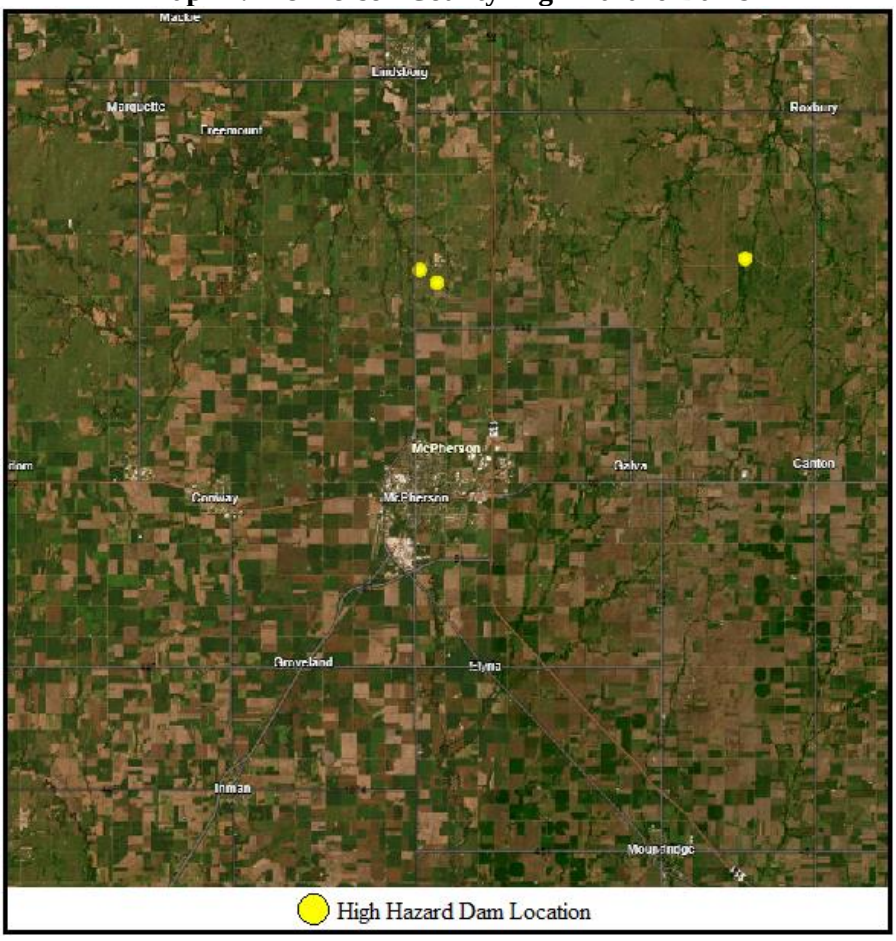
Source: National Inventory of Dams

Map 26: Kingman County High Hazard Dams



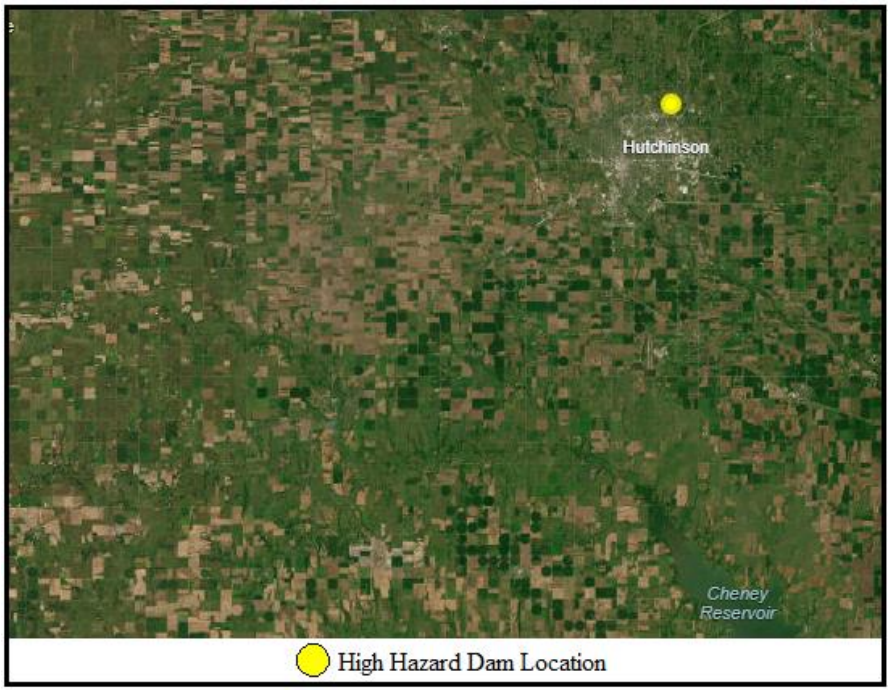
Source: National Inventory of Dams

Map 27: McPherson County High Hazard Dams



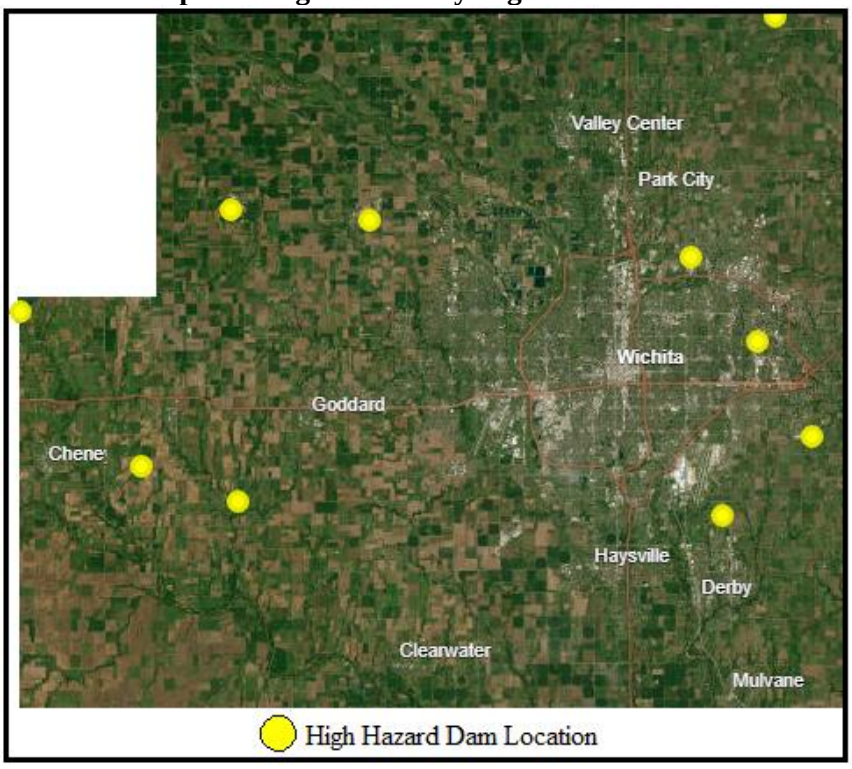
Source: National Inventory of Dams

Map 28: Reno County High Hazard Dams



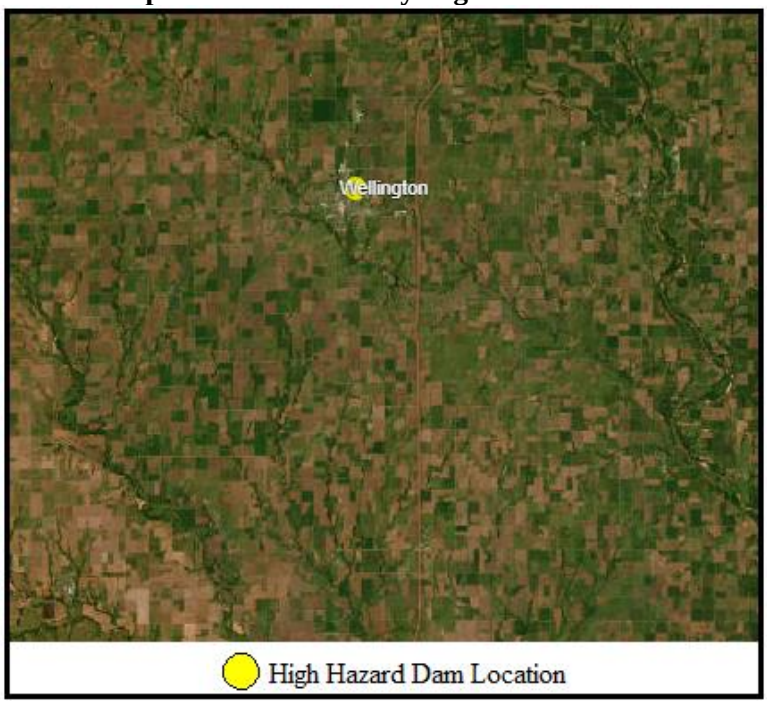
Source: National Inventory of Dams

Map 29: Sedgwick County High Hazard Dams



Source: National Inventory of Dams

Map 30: Sumner County High Hazard Dams



Source: National Inventory of Dams

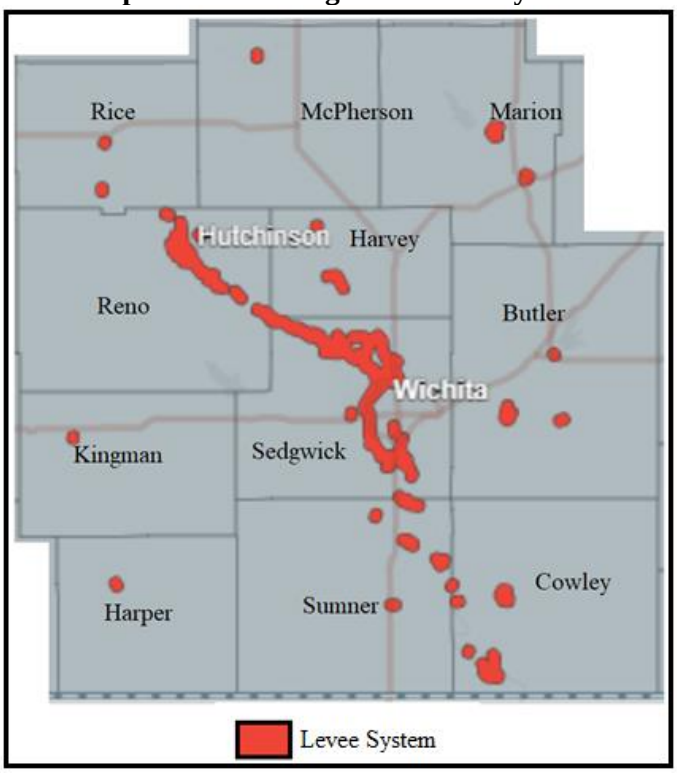
Regulation of levees in the United States involves multiple entities at different levels of government: These entities include:

- **Local Levee Districts:** In many cases, local levee districts or authorities are responsible for the construction, maintenance, and operation of levees. These districts are often formed by communities or landowners in areas prone to flooding, and they assess taxes or fees to fund levee projects.
- **Local Governments:** Local governments, such as city or county governments, may also have roles in regulating and overseeing levees. They may work in coordination with state and federal agencies to ensure that levees comply with applicable regulations and standards.
- **State Agencies**: State agencies play a role in regulating and overseeing levees within their jurisdictions. They may establish standards, guidelines, and regulations for levee construction, maintenance, and inspection. State agencies may also provide technical assistance to local levee districts.
- **Federal Agencies:** The U.S. Army Corps of Engineers (USACE) is a major federal agency involved in levee regulation. The USACE is responsible for evaluating and accrediting levees through the National Levee Safety Program. FEMA also plays a role in floodplain management and mapping. Levees that are accredited by the USACE may influence floodplain mapping and impact flood insurance requirements for communities.

The regulation of levees involves a combination of engineering standards, safety evaluations, and adherence to local, state, and federal regulations. Levee safety is a critical aspect of flood risk management, and ongoing inspection, maintenance, and potential upgrades are essential to their effectiveness.

The following map, from the USACE National Levee Database, details the location of major levee systems in Kansas Region G:

Map 31: Kansas Region G Levee Systems



Source: National Levee Database

As a subset of data, the following table details known information concerning levees within Kansas Region G identified as providing protection to a populations or structures:

Table 49: Kansas Region G Levee Systems Protecting People and/or Properties

County	Jurisdiction(s)	Name	Waterway	Levee Miles	Leveed Area in Square Miles
Butler	Augusta	Augusta Levee	Whitewater River	4.29	1.07
	El Dorado	El Dorado Levee	Walnut River	0.29	0.026
	Augusta	Walnut River Levee S. 1	Whitewater River	0.21	0.023
Cowley	Arkansas City	Arkansas City Levee	Arkansas River, Walnut River	9.16	3.88
	Winfield	Winfield Levee	Walnut River	4.32	1.76
Harvey	Halstead	Halstead Arkansas River Levee	Little Arkansas River	4.10	3.43
Marion	City of Marion	Cottonwood River Levee	Cottonwood River	3.35	1.13
	Florence	Florence Cottonwood River Levee	Cottonwood River	1.56	0.33
Reno	Hutchinson	Arkansas River North Bank	Arkansas River	1.03	0.36
	Hutchinson	Hutchinson Levee - Levee A & D - Arkansas NW Bank	Arkansas River	8.24	6.51
	Hutchinson	Hutchinson Levee - Levee A & E - Arkansas NE Bank	Arkansas River	7.98	6.51
	Hutchinson	Hutchinson Levee - Levee B - Arkansas South Bank	Arkansas River	3.90	3.17
	Hutchinson	Hutchinson Levee - Levee C	Arkansas River	7.52	3.48
	Willowbrook	Hutchinson Levee - Levee F-Ring Levee	Arkansas River	1.69	0.20

Table 49: Kansas Region G Levee Systems Protecting People and/or Properties

County	Jurisdiction(s)	Name	Waterway	Levee Miles	Leveed Area in Square Miles
Reno, Sedgwick	Mount Hope	Arkansas River South Bank Levee 3	Arkansas River	1.54	0.30
Rice	Sterling	Bull Creek Levee	Bull Creek	0.47	0.37
Sedgwick	Wichita	Arkansas River East Bank Levee	Arkansas River	1.33	0.95
	Bentley	Arkansas River North Bank Levee	Arkansas River	2.41	0.26
	Maize	Arkansas River North Bank Levee 2	Arkansas River	3.09	0.84
	Bentley	Arkansas River North Bank Levee 3	Arkansas River	2.64	0.81
	Mount Hope	Arkansas River North Bank Levee 7	Arkansas River	4.81	2.10
	Bentley	Arkansas River South Bank Levee	Arkansas River	7.06	5.66
	Haysville	Cowskin Creek South Levee Right	Cowskin Creek South	0.95	0.16
	Derby	LSG-0009, LSG-0016	Arkansas River	0.52	0.14
	Wichita	LSG-0020, LSG-0022, LSG-0029	Unnamed	0.58	0.072
	Park City	WB Chisholm Creek EB S1/WVC Chisholm Levee S & T	Chisholm Creek, Unnamed Creek/Stream	5.76	1.52
	Valley Center	West Branch Chisholm Creek East Bank Spoil 2	Unnamed Creek/Stream	3.68	1.46
	Valley Center	West Branch Chisholm Creek East Bank Spoil 3	Unnamed Creek/Stream	1.68	0.32
	Valley Center	West Branch Chisholm Creek East Bank Spoil 4	Unnamed Creek/Stream	0.92	0.10
	Wichita	Wichita Valley Center Floodway Levee 1	Wichita Valley Center Floodway	0.9	0.19
	Wichita	Wichita Valley Center Floodway Levee 2	Wichita Valley Center Floodway	0.69	0.13
	Wichita	WVC Big Slough Levee C North	Arkansas River, Big Slough	24.93	57.78
	Haysville	WVC Big Slough Levee C South	Big Slough, Cowskin Creek	5.83	7.33
	Wichita	WVC Big Slough Levee D/WVC Riverside Levee P, R, S	Arkansas River, Big Slough, Cowskin Creek, Middle Fork Chisholm Creek	29.12	58.56
	Park City	WVC Chisholm Levee P & N/Park City Levee	Chisholm Creek, Little Arkansas River, Middle Fork Chisholm Creek	7.02	1.95
	Wichita	WVC Little Ark Levee F,K,L,M/WB Chisholm Creek WB	Arkansas River, Canal/Ditch, Chisholm Creek, Jester Creek, Little Arkansas River	23.69	19.55
	Valley Center	WVC Little Ark Levee J	Arkansas River, Canal/Ditch, Little Arkansas River	6.78	6.44

Table 49: Kansas Region G Levee Systems Protecting People and/or Properties

County	Jurisdiction(s)	Name	Waterway	Levee Miles	Leveed Area in Square Miles
Sedgwick, Sumner	Mulvane	Cowskin Creek Levee 2 - Right	Cowskin Creek South	4.66	5.20
Sumner	Mulvane	Cowskin Creek Levee 2 - Right	Cowskin Creek	4.64	5.09
	Mulvane	Cowskin Creek Levee - Left	Cowskin Creek	3.94	2.16
	Oxford	LSU-0001,LSU-0014,LSU-0015 -16,LSU-0032,LSU-0050	-	1.87	0.70
	Oxford	LSU-0008, LSU-0033	-	0.62	0.07
	Mulvane	Ninnescah River	Ninnescah River	0.45	0.12

4.9.3 Previous Occurrences

Data from the National Performance of Dams Program at Stanford University indicates Kansas Region G has had the following reported dam incidents:

Table 50: Kansas Region G Incidents

County	Jurisdiction	Dam Name	Incident Type	Uncontrolled Release of Reservoir	Year	Deaths
Butler	Augusta	Augusta Waterworks Dam	Embankment Slide	No	2002	0
Butler	Augusta	Santa Fe Lake Dam	Erosion/Animal Burrows	No	2001	0
Butler	Leon	FRD No 1	Piping	Yes	1967	0
Cowley	Winfield	Winfield Reservoir	Unknown	Yes	1916	0
Kingman	Rago	Yeager Lake Dam	Seepage	No	2002	0

Source: National Performance of Dams Program

There have been no notable or reported levee failures in Kansas Region G in the past 10 years.

4.9.4 Probability of Future Incidents

Despite the infrequent historical occurrences of dam failure resulting in an uncontrolled release of the reservoir, there remains a significant concern due to the large number of significant and high hazard dams throughout the region. The probability of dam failure events is not easily measured, but may aligned with:

- The probability of future flood events
- Preventative measure taken by dam owners and operators, maintenance and repair
- Frequent condition inspections
- Proper operating procedures

KDA-DWR conducts routine monitoring and inspection of dams within the state on the previously identified schedule, with priority placed on those dams which pose the greatest potential threat. However, to fully determine the probability of a future event, a full engineering inspection would need to be completed on each dam, something beyond the scope of this plan.

Dams undergoing repair and/or reconstruction are required to be designed to pass at least the 1%-annual-chance rainfall event with one foot of freeboard. The most critical and hazardous dams are required to meet a spillway design standard much higher than passing the runoff from a 1%-annual-chance rainfall event. Although not all the dams have been shown to withstand the 1%-annual-chance rainfall event, most of the dams meet this standard due to original design requirements or recent spillway upgrades.

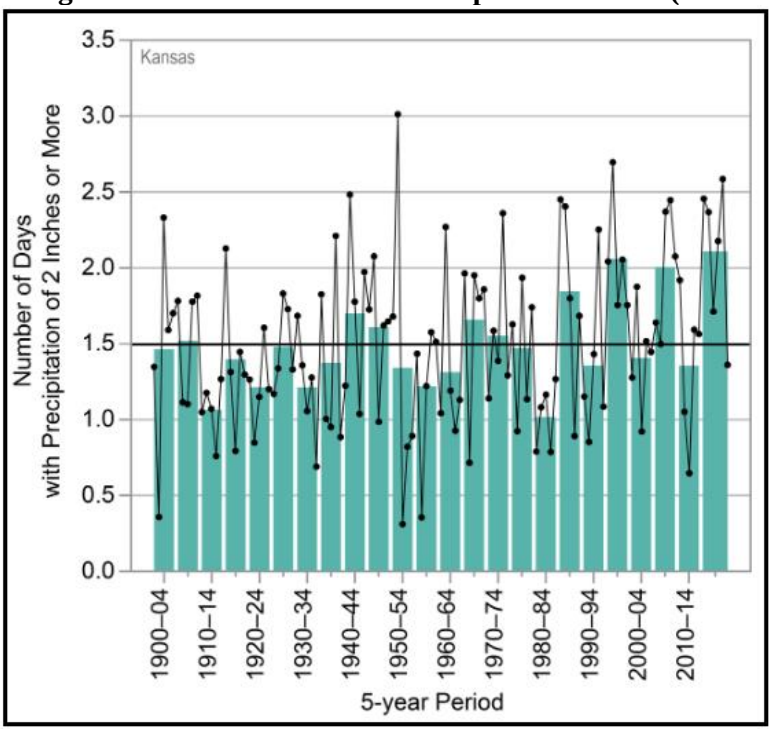
4.9.5 Projected Changes in Hazard Location, Intensity, Frequency, and Duration

The 2018 National Climate Assessment report indicates that much of the water infrastructure in the central portion of the United States, including dams, is nearing the end of its planned life expectancy. As indicated in the report: "Aging and deteriorating dams and levees also represent an increasing hazard when exposed to extreme or, in some cases, even moderate rainfall. Several recent heavy rainfall events have led to dam, levee, or critical infrastructure failures, including the Oroville emergency spillway in California in 2017, Missouri River levees in 2017, 50 dams in South Carolina in October 2015 and 25 more dams in the state in October 2016, and New Orleans levees in 2005 and 2015. The national exposure to this risk has not yet been fully assessed."

A potential outcome of changing climate in Kansas Region G is an increase in extreme precipitation events which may lead to more severe floods and a greater risk of dam failure. Additional projected greater periods of drought conditions and high heat may result in ground cracking, a reduction of soil strength, erosion, and subsidence in earthen dams.

The NOAA NCEI State Climate Summary 2022 for Kansas suggests that the number of extreme precipitation events are projected to increase. These extreme events will likely place increased stress on dams within the State.

Chart 14: Kansas Region G Number of Extreme Precipitation Events (Greater Than 2 Inches)



Source: NOAA NCEI State Climate Summary 2022 for Kansas

At present there is no comprehensive assessment of the climate-related vulnerability and risks to existing dams. Additionally, there are no common design standards concerning the repair or modification of existing dams nor for the designed and construction of new dams operated in the face of changing climate risk.

Land use trends can significantly impact a community's vulnerability to dam or levee failure. The way land is developed and used in proximity to dams and levees can influence the potential consequences of failure, affecting the safety of residents and infrastructure.

Development in flood-prone areas or behind levees without adequate consideration for flood risk increases vulnerability. Increased urbanization and population density near dams and levees can intensify the consequences of failure. Higher population density means more people and assets are at risk, leading to greater potential for loss of life and property damage.

The location of critical infrastructure, such as hospitals, schools, and emergency services, in close proxim levees can heighten vulnerability. Infrastructure assets may be at risk of damage or disruption, impacting the community's ability to respond effectively to a failure.
Agricultural Land Use:

4.9.6 Vulnerability and Impact

The National Inventory of Dams documents all known dams in Kansas. The U.S. Army Corps of Engineers (USACE) is responsible for maintaining the National Inventory of Dams and works in close collaboration with federal and State of Kansas dam regulating agencies to obtain accurate and complete information about dams in the database. The database contains information about a dam's location and condition assessment. The condition assessment describes the condition of the dam based on available information, with the following ratings given:

- **Satisfactory:** No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions (static, hydrologic, seismic) in accordance with the minimum applicable state or federal regulatory criteria or tolerable risk guidelines.
- **Fair:** No existing dam safety deficiencies are recognized for normal operating conditions. Rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. Risk may be in the range to take further action.
- **Poor:** A dam safety deficiency is recognized for normal operating conditions which may realistically occur. Remedial action is necessary. Poor may also be used when uncertainties exist as to critical analysis parameters which identify a potential dam safety deficiency. Investigations and studies are necessary.
- **Unsatisfactory**: A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.
- **Not Rated:** The dam has not been inspected, is not under state or federal jurisdiction, or has been inspected but, for whatever reason, has not been rated.
- **Not Available:** Dams for which the condition assessment is restricted to approved government users.

The following table details the nearest jurisdiction, dam number, dam names, Emergency Action Plan (EAP) status, and condition assessment of all high hazard dams in Region G.

Table 51: Kansas Region G High Hazard Dams

County	Nearest Jurisdiction	Dam Number	Dam Name	EAP	Condition Assessment
Butler	Douglass	KS02126	Frd No 4-6	Yes	Not Rated
	Leon	KS04370	Frd No 1	Yes	Fair
	Latham	KS02144	Frd No 22	Yes	Fair
	Augusta	KS00309	Augusta Waterworks Dam	Yes	Fair
	Augusta	KS00310	Santa Fe Lake Dam	Yes	Poor
	Sycamore Township	KS03946	Fox Lake Dam	Yes	Satisfactory
	El Dorado	KS05389	Frd No 6	Yes	Not Rated
	El Dorado	KS07075	Frd No 7	Yes	Fair
	El Dorado	KS05290	Frd No 21	Yes	Not Rated
	El Dorado	KS09283	8-North Sector	Yes	Satisfactory
	Andover	KS09005	Upper Dam	Yes	Poor
	Augusta	KS00289	Jaycee Dam	Yes	Poor
Cowley	Floral	KS02454	Timber Creek Mpd No 29	Yes	Satisfactory
	Wilmot	KS04361	Frd No 21	Yes	Fair
	Atlanta	KS02231	Frd No 20	Yes	Not Rated
	Parkerfield	KS00457	Lake Wynds Dam	Yes	Fair
	Winfield	KS07116	Dd No 110	Yes	Satisfactory
	Udall	KS07124	Frd No 112	No	Satisfactory
Harvey	Whitewater	KS04681	Frd No 18	Yes	Satisfactory

Table 51: Kansas Region G High Hazard Dams

County	Nearest Jurisdiction	Dam Number	Dam Name	EAP	Condition Assessment
	Whitewater	KS04682	Frd No 19	Yes	Fair
	Whitewater	KS09267	No 17	Yes	Fair
	Newton	KS05489	Frd No 1	Yes	Fair
	Newton	KS07892	Dd No 107	Yes	Fair
	Newton	KS04686	Frd No 2	Yes	Satisfactory
	North Newton	KS04684	Dd No 113	No	Fair
	Sedgwick	KS09343	96th St and Hoover Road	Yes	Satisfactory
Kingman	Rago	KS03730	Yeager Lake Dam	Yes	Fair
McPherson	McPherson	KS00882	McPherson County State Lake Dam	Yes	Not Rated
	McPherson	KS04598	Ksnoname 4598	Yes	Not Rated
	Hilton	KS04820	No Name - 485615	Yes	Not Rated
Reno	Hutchinson	KS07496	Pamorama Lake	No	Not Rated
Sedgwick	Garden Plain	KS02553	Lake Afton Dam	Yes	Satisfactory
	Furley	KS04890	Fed No 20	Yes	Not Rated
	Garden Plain	KS02415	Frd No R-1	Yes	Satisfactory
	Forest Hills	KS03791	Beech Lake Dam	No	Fair
	Linwood Acres	KS09133	Dd No. 107	Yes	Fair
	Andale	KS02527	Andale Frd No A-2	Yes	Fair
	Tolerville	KS03774	Fawn Lake Dam	No	Not Rated
	Derby	KS03777	Hayley Dam	No	Not Rated
	Colwich	KS09310	Colwich Park Dam	Yes	Satisfactory
Sumner	Wellington	KS02528	Hargis Creek Frd No 1	Yes	Satisfactory

Source: National Inventory of Dams

It is worth noting that a major rehabilitation project was just completed at the end of 2023 to improve the Augusta Waterworks Dam. This work will be reflected in the dam's classification during the next scheduled inspection. Additionally, the High Hazard Dams identified in this plan may vary slightly from those listed in the High Hazard Potential Dam Addendum 2 of the 2023 Kansas HMP. This discrepancy arises primarily due to the absence of High Hazard Potential Dam information in the 2023 State HMP at the time of developing this plan.

Additionally, there are three federally operated high hazard dams within Kansas Region G. The following table details known information concerning the condition and risk assessment for all federally operated dams:

Table 52: Kansas Region G Federally Operated Dam Condition and Risk Assessments

County	Jurisdiction	Dam Number	Dam Name	EAP	Risk Assessment	Maximum People at Risk	Maximum Buildings at Risk	Maximum Economic Risk
Butler	El Dorado	KS00027	El Dorado Dam	Yes	Low	15,512	8,408	$803,351,126
Marion	Marion	KS00006	Marion Dam	Yes	Low	3,494	0	$241,054,428
Sedgwick	Cheney	KS00017	Cheney	Yes	Not Available	Unavailable	Unavailable	Unavailable

Source: National Inventory of Dams

Following the metric established in the State of Kansas Hazard Mitigation Plan, an analysis of vulnerability to dam failure was completed by points being assigned to each type of dam and then aggregated for a total point score for each county. This analysis does not intend to demonstrate vulnerability in terms dam structures that are likely to fail, but rather provides a general overview of the counties that have a high number of dams, with weighted consideration given to dams whose failure would result in greater damages. Points were assigned as follows:

- Low Hazard Dams: 1 point

- Significant Hazard Dams: 2 points
- High Hazard Dams: 3 points
- High Hazard Dams without an EAP: 2 points
- Federal Reservoir Dams: 3 points.

Based on these categories, an awarded point total was determined for each participating county and a vulnerability rating assigned based on the following schedule.

Table 53: Dam Vulnerability Rating Schedule

	Low	Medium-Low	Medium	Medium-High	High
Awarded Point Range	0 – 26	27 – 50	51 – 100	101 – 200	201 - 327

The following table presents the dam failure vulnerability rating for each Kansas Region G participating county.

Table 54: Kansas Region G County Vulnerability Assessment for Dam Failure

County	Low Hazard Dams	Significant Hazard Dams	High Hazard Dams	High Hazard Dams Without EAP	Federal Reservoirs	Vulnerability Rating	Vulnerability Level
Butler	217	10	13	0	1	276	High
Cowley	118	7	6	1	0	149	Medium-High
Harper	22	0	0	0	0	22	Low
Harvey	22	2	8	1	0	49	Medium-Low
Kingman	29	0	1	0	0	32	Medium-Low
McPherson	26	1	1	0	0	31	Medium-Low
Marion	25	0	3	0	1	34	Medium-Low
Reno	18	0	1	0	0	21	Low
Rice	17	0	0	0	0	17	Low
Sedgwick	68	1	10	2	1	98	Medium
Sumner	9	1	1	0	0	14	Low

Source: Analysis by KDEM utilizing data from: Kansas Department of Agriculture, Division of Water Resources, Water Structures program; U.S. Army Corps of Engineers; Bureau of Reclamation; U.S. Army, U.S. Fish and Wildlife.

For the NFIP, FEMA will only recognize a levee system in its flood risk mapping effort that meet minimum design, operation, and maintenance standards as established by 44 CFR 65.10 – Mapping of Areas Protected by Levee Systems. In general, evaluated levees are assigned to one of these categories:

- Accredited Levee: Area behind the levee is mapped as a moderate risk, with no mandatory flood insurance requirement.
- To Be Accredited: A levee system that has been approved for accreditation.
- Provisionally Accredited Levee (PAL): Area behind the levee is mapped as a moderate risk, with no mandatory flood insurance requirement, for a two-year grace period while compliance with 44 CFR 65.10 is sought
- Non-Accredited Levee: Area behind the levee is mapped according to FEMA protocols, likely resulting in a high-risk area designation and associate flood insurance requirements
- To Be Non-Accredited: A levee system that no longer meets the requirements stipulated in 44 CFR 65.10 and is scheduled to lose accredited status

Additionally, each levee is assigned a risk classification to aid in hazard analysis. The following table details these classifications and suggested actions to be taken:

Table 55: Levee Risk Classification Rating Definitions

Class	Risk Characteristics	Suggested Actions
Very High	Likelihood of inundation due to breach and/or system component malfunction in combination with loss of life, economic, or environmental consequences results in very high risk.	Based on risk drivers, take immediate action to implement interim risk reduction measures. Increase frequency of levee monitoring, communicate risk characteristics to the community within an expedited timeframe; verify emergency plans and flood inundation maps are current; ensure community is aware of flood warning systems and evacuation procedures; and recommend purchase of flood insurance. Support risk reduction actions as very high priority.
High	Likelihood of inundation due to breach and/or system component malfunction in combination with loss of life, economic, or environmental consequences results in high risk.	Based on risk drivers, implement interim risk reduction measures. Increase frequency of levee monitoring; communicate risk characteristics to the community within an expedited timeframe; verify emergency plans and flood inundation maps are current; ensure community is aware of flood warning and evacuation procedures; and recommend purchase of flood insurance. Support risk reduction actions as high priority.
Moderate	Likelihood of inundation due to breach and/or system component malfunction in combination with loss of life, economic, or environmental consequences results in moderate risk.	Based on risk drivers, implement interim risk reduction measures as appropriate. Verify risk information is current and implement routine monitoring program; assure operations and maintenance is up to date; communicate risk characteristics to the community in a timely manner; verify emergency plans and flood inundation maps are current; ensure community is aware of flood warning and evacuation procedures; and recommend purchase of flood insurance. Support risk reduction actions as a priority.
Low	Likelihood of inundation due to breach and/or system component malfunction in combination with loss of life, economic, or environmental consequences results in low risk.	Verify risk information is current and implement routine monitoring program and interim risk reduction measures if appropriate; assure operations and maintenance is up to date; communicate risk characteristics to the community as appropriate; verify emergency plans and flood inundation maps are current; ensure community is aware of flood warning and evacuation procedures; and recommend purchase of flood insurance. Support risk reduction actions to further reduce risk to as low as practicable.
Very Low	Likelihood of inundation due to breach and/or system component malfunction in combination with loss of life, economic, or environmental consequences results in very low risk.	Continue to implement routine levee monitoring program, including operation and maintenance, inspections, and monitoring of risk. Communicate risk characteristics to the community as appropriate; verify emergency plans and flood inundation maps are current; ensure community is aware of flood warning and evacuation procedures; and recommend purchase of flood insurance.
No Verdict	-	Not enough information is available to assign Risk.

Source: USACE

The following table details, by county and jurisdiction, information from the USACE concerning levee failure risk:

Table 56: Kansas Region G Levee Failure Consequence Analysis

County	Jurisdiction	Name	People at Risk	Structures at Risk	Property Value	Levee Risk Classification	Levee System Status
Butler	Augusta	Augusta Levee	1,364	745	$154,000,000	Low	Accredited
	El Dorado	El Dorado Levee	12	10	$22,100,000	Not Screened	Non-Accredited
	Augusta	Walnut River Levee S. 1	0	5	$42,900,000	Not Screened	Non-Accredited
Cowley	Arkansas City	Arkansas City Levee	3,825	2,118	$335,000,000	Low	Accredited

Table 56: Kansas Region G Levee Failure Consequence Analysis

County	Jurisdiction	Name	People at Risk	Structures at Risk	Property Value	Levee Risk Classification	Levee System Status
	Winfield	Winfield Levee	4,484	2,354	$1,190,000,000	Low	Accredited
Harvey	Halstead	Halstead Arkansas River Levee	2,123	1,208	$240,000,000	Low	Accredited
Marion	City of Marion	Cottonwood River Levee	517	296	$180,000,000	Low	Accredited
	Florence	Florence Cottonwood River Levee	351	254	$81,100,000	Low	Accredited
Reno	Hutchinson	Arkansas River South Bank Levee	1	2	$1,060,000	Not Screened	Non-Accredited
	Hutchinson	Hutchinson Levee - Levee A & D - Arkansas NW Bank	1,702	961	$213,000,000	Low	Non-Accredited
	Hutchinson	Hutchinson Levee - Levee A & E - Arkansas NE Bank	12,909	6,272	$1,510,000,000	Low	Accredited
	South Hutchinson	Hutchinson Levee - Levee B -Arkansas South Bank	2,313	1,354	$333,000,000	Low	Accredited
	Hutchinson	Hutchinson Levee C	786	278	$49,300,000	Low	Accredited
	Willowbrook	Hutchinson Levee - Levee F-Ring Levee	80	13	$2,300,000	Low	Accredited
Reno, Sedgwick	Mount Hope	Arkansas River South Bank Levee 3	3	1	$333,000	Not Screened	Non-Accredited
Rice	Sterling	Bull Creek Levee	1,441	349	$156,000,000	Not Screened	Non-Accredited
Sedgwick	Wichita	Arkansas River East Bank Levee	7,050	1,669	$858,000,000	Not Screened	Non-Accredited
	Bentley	Arkansas River North Bank Levee	2	1	$238,000	Not Screened	Non-Accredited
	Maize	Arkansas River North Bank Levee 2	0	1	$846,000	Not Screened	Non-Accredited
	Bentley	Arkansas River North Bank Levee 3	0	0	$0	Not Screened	Non-Accredited

Table 56: Kansas Region G Levee Failure Consequence Analysis

County	Jurisdiction	Name	People at Risk	Structures at Risk	Property Value	Levee Risk Classification	Levee System Status
	Mount Hope	Arkansas River North Bank Levee 7	0	8	$9,740,000	Not Screened	Non-Accredited
	Bentley	Arkansas River South Bank Levee	118	22	$16,200,000	Not Screened	Non-Accredited
	Haysville	Cowskin Creek South Levee Right	78	49	$14,400,000	Not Screened	Non-Accredited
	Derby	LSG-0009, LSG-0016	3	3	$1,340,000	Not Screened	Non-Accredited
	Wichita	LSG-0020, LSG-0022, LSG-0029	62	31	$13,200,000	Not Screened	Non-Accredited
	Park City	WB Chisholm Creek EB S1/WVC Chisholm Levee S & T	1,337	637	$181,000,000	Low	Accredited
	Wichita	Wichita Valley Center Floodway Levee 1	3	17	$18,400,000	Not Screened	Accredited
	Wichita	Wichita Valley Center Floodway Levee 2	169	90	$15,500,000	Not Screened	Non-Accredited
	Wichita	WVC Big Slough Levee C North	63,336	20,048	$5,430,000,000	Low	Accredited
	Haysville	WVC Big Slough Levee C South	9,257	3,515	$1,380,000,000	Low	Accredited
	Wichita	WVC Big Slough Levee D/WVC Riverside Levee P, R, S	188,654	59,577	$188,654	Low	Accredited
	Park City	WVC Chisholm Levee P & N/Park City Levee	912	395	$198,000,000	Low	Accredited
	Wichita	WVC Little Ark Levee F,K,L,M/WB Chisholm Creek WB	13,927	6,703	$1,270,000,000	Moderate	Accredited
	Valley Center	WVC Little Ark Levee J	459	157	$47,800,000	Low	Accredited

Table 56: Kansas Region G Levee Failure Consequence Analysis

County	Jurisdiction	Name	People at Risk	Structures at Risk	Property Value	Levee Risk Classification	Levee System Status
Sedgwick, Sumner	Mulvane	Cowskin Creek Levee 2 - Right	262	129	$50,100,000	Not Screened	Non-Accredited
Sumner	Mulvane	Cowskin Creek Levee - Left	196	115	$35,400,000	Not Screened	Non-Accredited
	Oxford	LSU-0001,LSU-0014,LSU-0015 - 16,LSU-0032	0	1	$250,000	Not Screened	Non-Accredited
	Oxford	LSU-0008, LSU-0033	0	1	$386,000	Not Screened	Non-Accredited
	Mulvane	Ninnescah River	1	1	$440,000	Not Screened	Non-Accredited

Source: USACE

The following table offers a summary of this data for each Kansas Region G county:

Table 57: Kansas Region G Levee Failure Population and Structure Risk

County	People	Structures	Value
Butler	1,376	760	$219,000,000
Cowley	8,309	4,472	$1,525,000,000
Harper	0	0	$0
Harvey	2,123	1,208	$240,000,000
Kingman	0	0	$0
Marion	868	550	$261,100,000
McPherson	0	0	$0
Reno	17,794	8,881	$2,108,993,000
Rice	1,441	349	$156,000,000
Sedgwick	285,629	93,052	$9,504,952,654
Sumner	197	118	$36,226,000

Source: USACE

A dam failure can be triggered by various cascading impacts, potentially involving a combination of natural and human-induced factors. The specific causes depend on the type of dam, its construction, maintenance, and the surrounding environment, and may include:

- Hydraulic Loading and Over-Topping: Excessive rainfall, rapid snowmelt, or a combination of both can lead to increased water inflow into the reservoir. If the rate of inflow exceeds the dam's discharge capacity, the water level may rise, leading to over-topping. Over-topping can cause erosion of the dam crest, ultimately resulting in failure.
- Slope Instability and Landslides: Landslides in the dam's vicinity can impact the stability of the dam structure. The sliding of soil or rock materials into the reservoir can displace water, causing waves that may over-top the dam or lead to structural damage.
- Seismic Events: Earthquakes can induce ground shaking, which may compromise the integrity of a dam. Seismic forces can lead to foundation movement, slope instability, or structural failure, resulting in dam failure.

- Foundation Failure: Weaknesses or faults in the dam's foundation can result in structural failu seepage, erosion, or subsurface geological issues can compromise the foundation's ability to support the dam's weight and the reservoir's water pressure.
- Piping and Internal Erosion: Piping occurs when water flows through internal pathways within the dam, gradually eroding and weakening the structure. If left unaddressed, piping can compromise the dam's integrity and lead to failure.
- Dam Aging and Deterioration: Over time, dams may experience aging and deterioration due to various factors such as freeze-thaw cycles, chemical reactions, and exposure to environmental conditions. This aging process can weaken materials and reduce the dam's structural stability.
- Inadequate Maintenance: Poor maintenance practices, including neglecting repairs and inspections, can contribute to the degradation of a dam's components. Cracks, leaks, and other defects left unaddressed can worsen over time, increasing the risk of failure.
- Ice Dam Formation: In cold climates, ice dams can form at the base of a dam or within the reservoir. The accumulation of ice can obstruct the flow of water, leading to over-topping and structural stress.
- Human-Induced Factors: Human activities, such as excavation, construction, or changes in land use near the dam, can influence its stability. Unauthorized modifications or alterations to the dam structure can compromise its integrity.

Additionally, a dam failure can cause a number of rapidly cascading impacts both down and up-stream of the failure. A dam or levee failure event can have devastating and wide-ranging impacts on both people and communities. The severity of these impacts depends on the volume of water released and the location of the dam in relation to communities, and may include:

- Loss of Life: The sudden release of a large volume of water can result in flooding downstream, leading to drowning and casualties. The loss of life can be particularly high if the dam failure occurs in highly populated areas or when people are unable to evacuate in time.
- Long Term Displacement: People living downstream may be forced to evacuate their homes leading to displacement and requiring long-term shelter assistance.
- Economic Consequences: Both property damage and the disruption of transportation and utilities could affect local economies.
- Psychological Trauma: Survivors of dam failure events may experience psychological trauma, including post-traumatic stress disorder, anxiety, and depression. Witnessing the loss of lives and property can have long-lasting emotional effects on individuals and communities.

The impact of a dam or levee failure event on facilities, including critical facilities, can be wide-ranging. The extent of the impact depends on the proximity of the facilities to the dam and the volume of water released, and may include:

- Structural Damage: Facilities located downstream could sustain severe structural damage. Floodwaters can inundate buildings, causing structural failures, collapsing walls, and damaging foundations. This can render facilities inoperable or unsafe for use.
- Equipment Damage: Critical facilities often house valuable and sensitive equipment that can be severely damaged or destroyed by floodwaters and debris carried by the flood. This can include electrical systems, machinery, data centers, and communication equipment.
- Disruption of Operations: The flooding caused by a dam failure can disrupt the normal operations of critical facilities, including hospitals, emergency response centers, power plants, and water treatment plants. This disruption can have cascading effects on public services and infrastructure.
- Long-Term Recovery: The recovery process could be lengthy and resource intensive. It may involve rebuilding damaged infrastructure, restoring functionality, and implementing measures to prevent future vulnerabilities.

The environmental impact of dam or levee failures depends on the circumstances of the failure. After a failure occurs, the resulting flooding and moving debris can affect wildlife and natural habitats. The spread of pollution and hazardous

materials can have negative impacts on the environment. Ecosystems and natural habitats may be dest the migration or death of local wildlife. Depending on the timing and location of the failure, it can result in rapid changes in water temperature downstream. This can be harmful to temperature-sensitive aquatic species and ecosystems. Dam failures can disrupt natural ecological processes, such as nutrient cycling, sediment transport, and flow regimes. These disruptions can have cascading effects on ecosystems.

Any jurisdictional facility within an identified inundation zone of a dam or levee failure will be immediately impacted, potentially causing a cessation of all operations. The extent of the impact depends on multiple factors concerning the extent of the failure, and may include:

- Emergency Response and Management: Jurisdictional response agencies may be called upon to respond to a failure event. They must coordinate rescue operations, evacuations, and disaster response efforts to mitigate the immediate risks to human life and property.
- Infrastructure Damage and Maintenance: Jurisdictional public works agencies may need to assess and repair damage to roads, bridges, and other critical infrastructure affected by floodwaters and debris resulting from the dam failure. This can strain resources and disrupt transportation networks.
- Public Health and Safety: Jurisdictional public health agencies would provide support for public health needs during and after a dam failure, including responding to injuries, managing emergency shelters, and addressing potential health risks from contaminants or waterborne diseases.
- Financial Impact: A dam failure event can strain state budgets due to the costs associated with emergency response, infrastructure repair, environmental cleanup, and long-term recovery efforts. Local governments may need to allocate additional funds to address these needs.

Please see the State of Kansas 2024 Hazard Mitigation plan for details on dam failure inundation mapping.

Potentially Vulnerable Community Lifelines

A dam of levee failure can impact various community lifelines, critical systems and services that communities rely on for their functioning. As an overview, the May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report indicates the following loss values for community lifelines:

Table 58: Economic Impacts of Loss of Service Per Capita Per Day (in 2022 dollars)

Category	Loss
Loss of Electrical Service	$199
Loss of Wastewater Services	$66
Loss of Water Services	$138
Loss of Communications/Information Technology Services	$141

Source: May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report

The failure of a dam or levee can have significant and wide-ranging impacts on transportation infrastructure, affecting roads, bridges, railways, and other critical components of transportation systems. However, it is important to note that, as of this plan, neither the State of Kansas or Kansas Region G planning participants have delineated community lifelines and their associated values in dam or levee failure inundation zones. As such, the following discussion does not allow for a determination of specifically vulnerable community lifelines. Potential impacts may include:

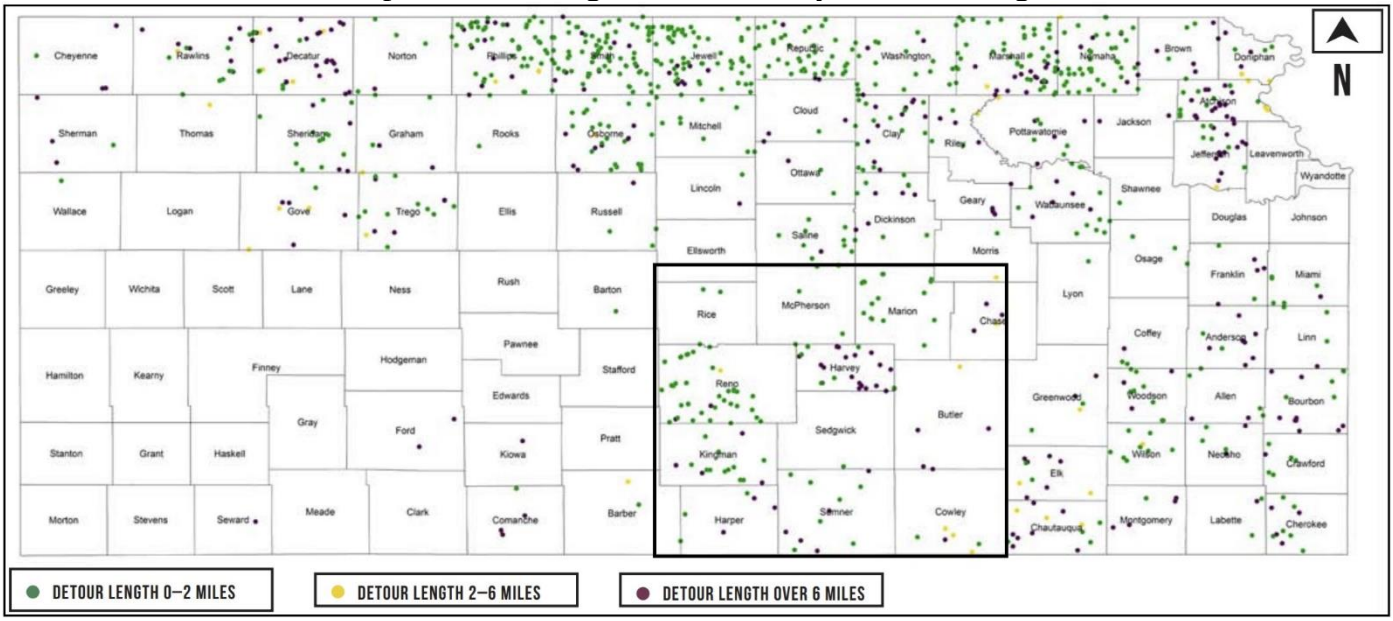
- Flooding and Erosion: Dam or levee failures can lead to rapid and extensive flooding, causing erosion of roadways and bridge foundations. This can result in the collapse or significant damage to roads and bridges, disrupting transportation routes.
- Extended Downtime: The repair of transportation infrastructure, especially major roads and bridges, can take a significant amount of time. During this period, transportation networks may be partially or entirely unavailable.

The cost to conduct maintenance on a road can vary significantly depending on the types of work required. However, the average estimate for repairs on a per mile basis in 2019 was $14,750 per mile. The cost to replace a road can vary significantly based on several factors, including the type of road, local labor and material costs, the complexity of the

project, and the specific requirements of the replacement. As a rough estimate, road construction costs c $1,000,000 to $10,000,000 per mile.

Bridges crossing rivers can pose significant concerns during flooding events due to the increased risk of structural failure. Floodwater can exert powerful hydraulic forces on bridge structures, with the flow of water, debris, and floating objects impacting the bridge's substructure and foundation. Scouring, the removal of soil or sediment around bridge foundations can increase during a flood event increasing the risk of failure. Floodwater can also cause the deformation and misalignment of bridge components. As water levels rise and fall, the structural elements may undergo stress and strain, potentially leading to long-term damage and misalignment. Of particular concern are structurally deficient bridges, which may be at increased risk of failure during an event. The following map, from the Kansas Department of Transportation, details Kansas Region G structurally deficient bridges:

Map 32: Kansas Region G Structurally Deficient Bridges



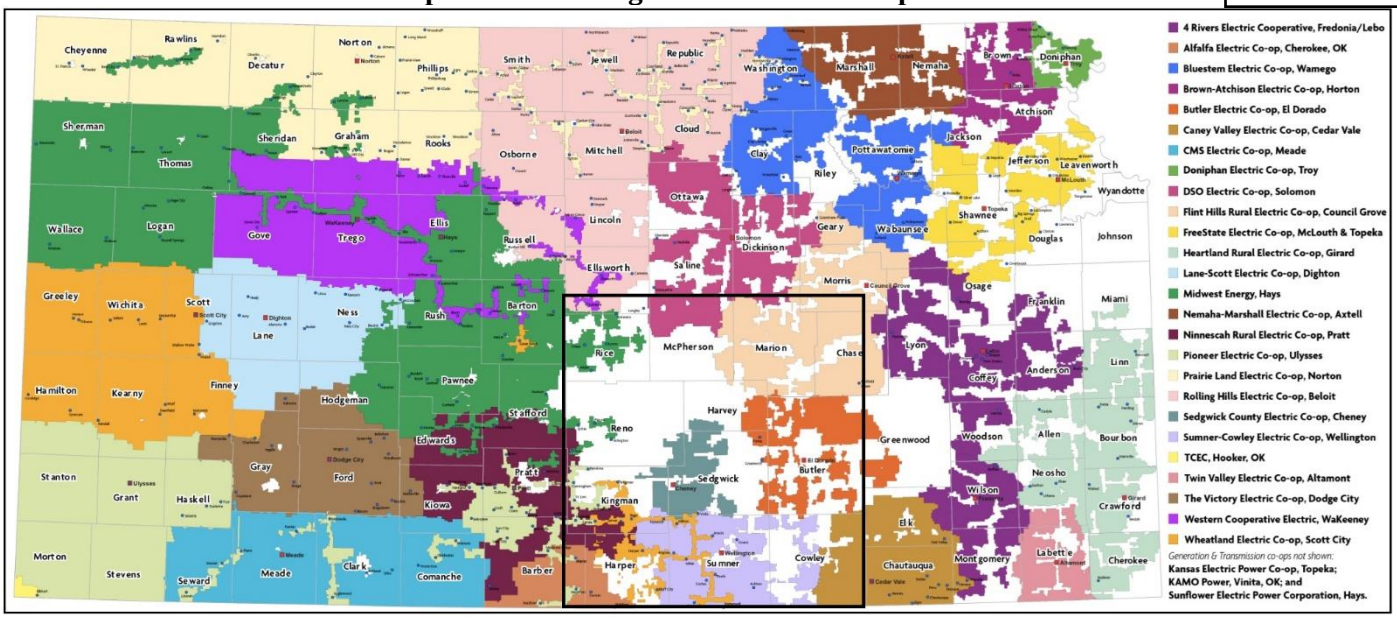
The Kansas Department of Transportation estimates that the cost to repair a structurally deficient bridge is on average $150,000.

The failure of a dam or levee can have significant impacts on power utilities, affecting both the generation and distribution of electrical power. Here are some potential consequences:

- Power Line Disruption: Dam or levee failures can cause flooding and erosion, potentially damaging power lines and transmission towers. This can result in the disruption of electricity transmission from power generation facilities to distribution networks.
- Substation Impact: Substation Flooding: Flooding from a dam or levee failure can impact electrical substations, which play a crucial role in transforming and distributing electricity. Substation failures can lead to widespread power outages.
- Grid Instability: The sudden loss of a significant power source can lead to voltage and frequency fluctuations. This instability can affect the overall reliability of the power grid.
- Emergency Shutdowns: In the event of a dam or levee failure, power utilities may need to implement emergency shutdowns of affected power plants and electrical infrastructure to prevent further damage and ensure the safety of personnel.

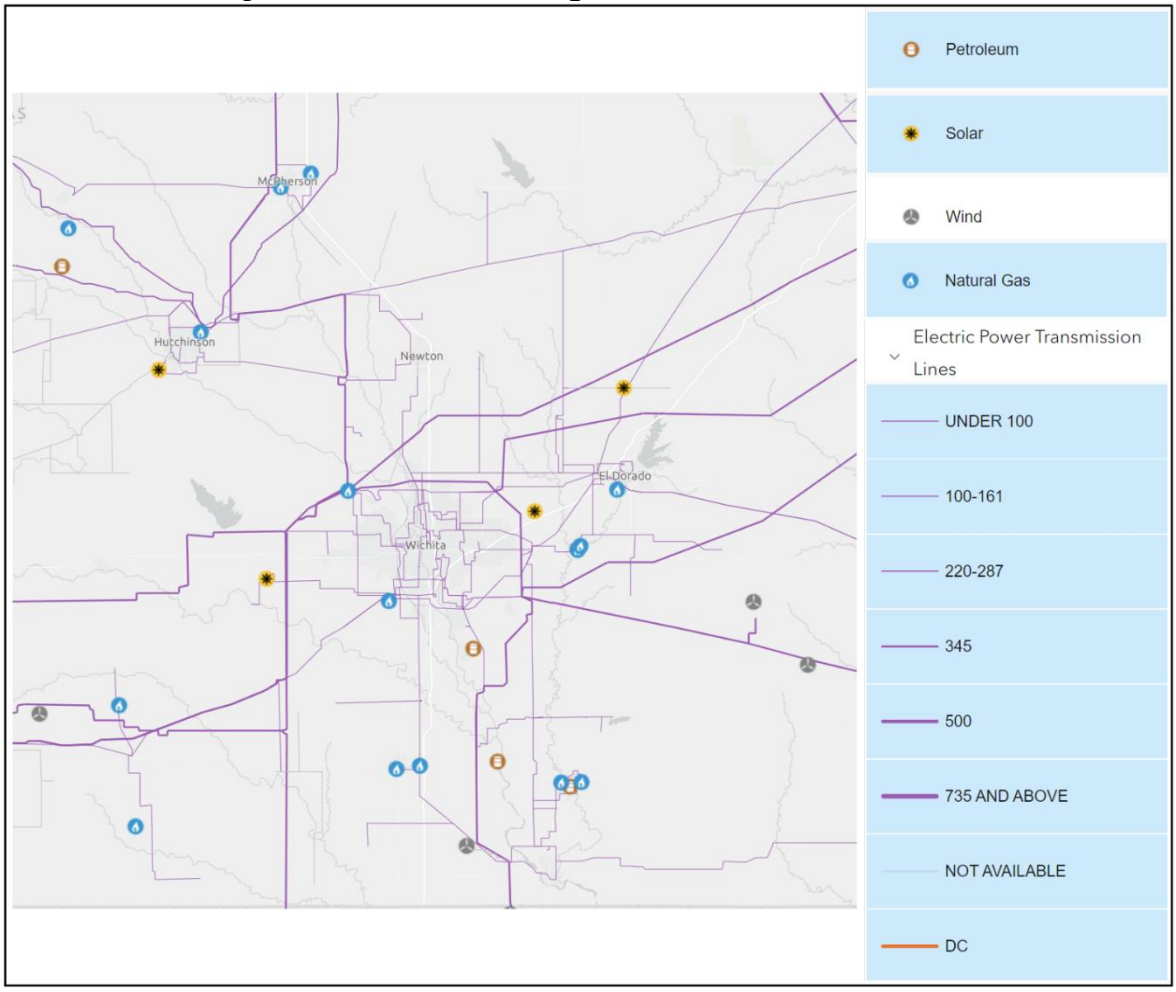
Kansas Region G and participating jurisdictions use the following electrical utility providers:

Map 33: Kansas Region G Electrical Cooperatives



Electricity is generated in Kansas Region G at 13 generation facilities, using biomass, natural gas, petroleum, and wind facilities. The following map, from the U.S. Energy Atlas, details the location of both electrical generating plants and high-capacity transmission lines within Kansas Region G:

Map 34: Electrical Generating Plants and Transmission Lines

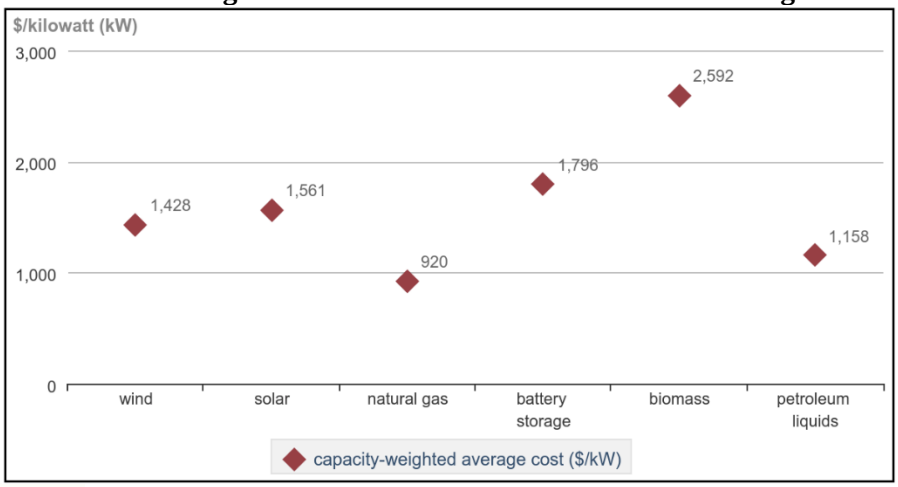


Source: U.S. Energy Atlas

The cost to replace electrical lines can vary widely based on several factors, including the type of elect distance of the replacement, local labor and material costs, the complexity of the project, and any specific requirements or challenges involved. Additionally, costs can be significantly different for residential, commercial, or industrial projects. Additionally, urban and rural locations may have varying cost factors. As a rough estimate, the cost to replace electrical lines can range from a few thousand dollars to several thousand dollars per mile.

Data concerning the construction costs of electrical generating plants from the U.S. Energy Information Administration indicates the following average per kW cost, by generating plant type, for new construction:

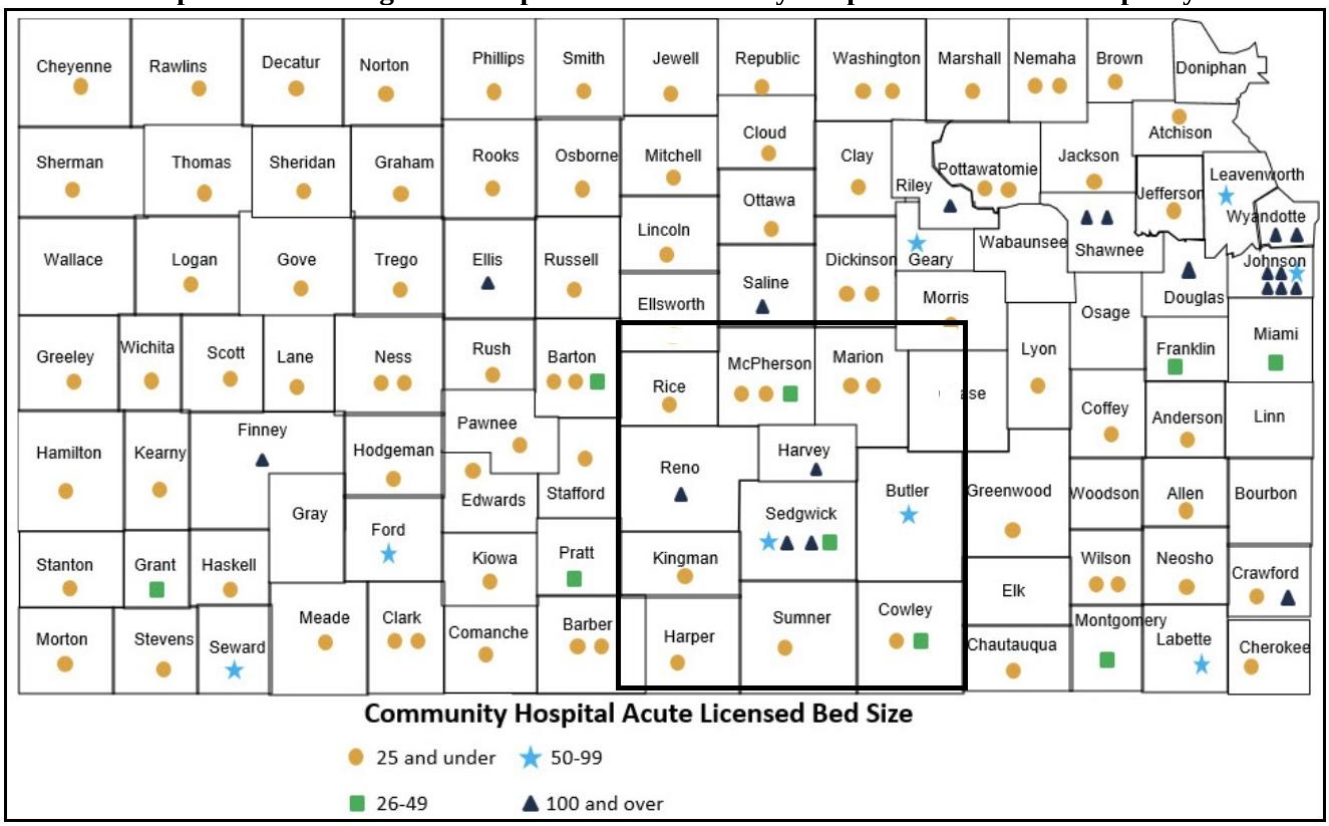
Chart 15: Average Construction Cost of Electrical Generating Plants



Source: U.S. Energy Information Administration

The following map, form the Kansas Hospital Association details the number of hospital beds by county for Kansas Region G:

Map 35: Kansas Region G Hospital Bed Community Hospital Licensed Bed Capacity



Source: Kansas Hospital Association

While these, and other smaller medical facilities, may see a rapid increase in dam or levee failure injuries during the event, it is considered unlikely that this increase will impact or overload the regional capacity except in the case of a catastrophic failure. In the event of a catastrophic failure, patients will need to be transported to adjacent regions to receive treatment.

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 59: Dam or Levee Failure Consequence Analysis

Subject	Potential Impacts
Impact on the Public	Heavy flooding can cause power loss, property damage, injury, and death, and the displacement of populations. Standing water can also pose a public health risk due to the reproduction of disease vectors such as mosquitos.
Impact on Responders	Heavy flooding may cause inaccessibility of roadways for first responders as well as damage of materials and resources. First responders will also have to facilitate evacuation measures to move people from the flooded area.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. Flooding caused by dam failure may create power outages, debris damage, and road closures.
Delivery of Services	Delivery of services may be disrupted due to flood-damaged bridges and roadways. Transit systems may face closures due to public safety concerns. The ability to deliver food, drinking water, and services will be heavily disrupted. Flooding may also interrupt communications and transportation due to power failure and accessibility challenges.
Property, Facilities, and Infrastructure	Flooding from failures impact roads and bridges, businesses, hospitals, and other critical entities. Water and sewer systems may also be damaged. Homes and businesses may be completely destroyed if situated close to the failure point.
Impact on Environment	Flooding and moving debris can affect natural areas and wildlife, spreading pollution and hazardous materials. Ecosystems and natural habitats may be completely destroyed, causing migration or death of wildlife.
Economic Conditions	There is a fiscal impact on the government after a failure due to disruption of travel and commerce routes and employee's ability to travel to work. Recourses at all levels are utilized impacting the ability to access resources long-term.
Public Confidence in Governance	Direct, immediate, and effective actions must be taken in order to maintain public confidence. Response activities must include all levels of government.

4.9.7 Jurisdictional Risk and Vulnerability

To help understand the risk and vulnerability to dam and levee failure events of participating jurisdictions the following tables were developed using available data:

Table 60: Jurisdictional High Hazard Dam Totals

County	Jurisdiction	Number High Hazard Dams	Number High Hazard Dams Without EAP	Lowest Rated Condition Assessment
Butler	Andover	1	0	Poor
	Augusta	3	0	Poor
	Douglass	1	0	Not Rated
	El Dorado	4	0	Fair
	Latham	1	0	Fair
	Leon	1	0	Fair
	Sycamore Township	1	0	Satisfactory

Table 60: Jurisdictional High Hazard Dam Totals

County	Jurisdiction	Number High Hazard Dams	Number High Hazard Dams Without EAP	Lowest Rated Condition Assessment
Cowley	Atlanta	1	0	Not Rated
	Floral	1	0	Satisfactory
	Parkerfield	1	0	Fair
	Udall	1	1	Satisfactory
	Wilmot	1	0	Fair
	Winfield	1	0	Satisfactory
Harvey	Newton	3	0	Fair
	North Newton	1	1	Fair
	Sedgwick	1	1	Satisfactory
	Whitewater	3	0	Fair
Kingman	Rago	1	0	Fair
McPherson	McPherson	2	0	Not Rated
	Hilton	1	0	Not Rated
Reno	Hutchinson	1	1	Not Rated
Sedgwick	Andale	1	0	Fair
	Colwich	1	0	Satisfactory
	Derby	1	1	Not Rated
	Forest Hills	1	1	Fair
	Furley	1	0	Not Rated
	Garden Plain	2	0	Satisfactory
	Linwood Acres	1	0	Fair
	Tolerville	1	1	Not Rated
Sumner	Wellington	1	0	Satisfactory

Source: National Inventory of Dams

High Hazard Dam inundation mapping was not available for inclusion in this plan. However, for comprehensive risk assessment and mitigation strategies, referencing High Hazard Dam inundation areas is crucial. Information concerning these inundation areas may be found, on a limited and as available basis, in the High Hazard Potential Dam Addendum 2 within the 2023 State Hazard Mitigation Plan.

Additionally, there are three federally operated high hazard dams within Kansas Region G. The following table details known information concerning the condition and risk assessment for all federally operated dams:

Table 61: Jurisdictional Federally Operated Dam Risk Assessments

County	Jurisdiction	Risk Assessment	Maximum People at Risk	Maximum Buildings at Risk
Butler	El Dorado	Low	15,512	8,408
Marion	Marion	Low	3,494	0
Sedgwick	Cheney	Not Available	Not Available	Not Available

Source: National Inventory of Dams

The following table details information from the USACE concerning levee failure consequence analysis for jurisdictions within Kansas Region G:

Table 62: Kansas Region G Levee Failure Consequence Analysis

County	Jurisdiction	People at Risk	Structures at Risk	Property Value
Butler	Augusta	1,364	750	$196,900,000
	El Dorado	12	10	$22,100,000
Cowley	Arkansas City	3,825	2,118	$335,000,000

Table 62: Kansas Region G Levee Failure Consequence Analysis

County	Jurisdiction	People at Risk	Structures at Risk	Property Value
	Winfield	4,484	2,354	$1,190,000,000
Harvey	Halstead	2,123	1,208	$240,000,000
Marion	City of Marion	517	296	$180,000,000
	Florence	351	254	$81,100,000
Reno	Hutchinson	15,398	7,513	$1,773,360,000
	South Hutchinson	2,313	1,354	$333,000,000
	Willowbrook	80	13	$2,300,000
Rice	Sterling	1,441	349	$156,000,000
Sedgwick	Bentley	120	23	$16,438,000
	Derby	3	3	$1,340,000
	Haysville	9,335	3,564	$1,394,400,000
	Maize	0	1	$846,000
	Mount Hope	3	9	$10,073,000
	Park City	2,249	1,032	$379,000,000
	Valley Center	459	157	$47,800,000
	Wichita	273,201	88,135	$7,605,288,654
Sumner	Mulvane	459	245	$85,940,000
	Oxford	0	2	$636,000

Source: USACE

4.10 Drought

4.10.1 Hazard Description

Drought is defined as an abnormally dry period lasting months or years when an area has a deficiency of water and precipitation in its surface and or underground water supply. It is, however, a normal, seasonal, and recurrent feature of climate that occurs in virtually all climate zones—typically in late spring through early fall. The duration of drought varies widely. There are cases when drought develops relatively quickly and lasts a very short period of time, exacerbated by extreme heat and/or wind, and there are other cases when drought spans multiple years, or even decades. The hydrological imbalance can be grouped into the following non-exclusive categories:

- Agricultural: When the amount of moisture in the soil no longer meets the needs of previously grown crops
- Hydrological: When surface and subsurface water levels are significantly below their normal levels
- Meteorological: When there is a significant departure from the normal levels of precipitation
- Socio-Economic: When the water deficiency begins to significantly affect the population

When below average, little or no rain falls, soil can dry out, and plants can die. If unusually dry weather persists and water supply problems develop the period is defined as a drought. Human activity such as over-farming, excessive irrigation, deforestation, and poor erosion controls can exacerbate a drought's effects. It can take weeks or months before the effects of below average precipitation on bodies of water are observed. Depending upon the region, droughts can happen more quickly, and be noticed sooner, or have their effects naturally mitigated. The more humid and wet an area is, the faster the effects will be realized. A naturally dry region, which typically relies more on subsurface water will take more time to actualize its effects.

Periods of drought can have significant environmental, agricultural, health, economic, and social consequences. The effects vary depending upon vulnerability and regional characteristics. Droughts can also reduce water quality through a decreased ability for natural rivers and streams to dilute pollutants and increase contamination. The most common effects are diminished crop yield, increased erosion, dust storms, ecosystem damage, reduced electricity production due to reduced flow through hydroelectric dams, shortage of water for industrial production, and increased risk of wildland fires.

4.10.2 Location and Extent

All of Kansas Region G is susceptible to drought conditions. However, the specific susceptibility to drought depends on various factors, including climate patterns, land use practices, and water management strategies.

Kansas Region G generally has a semi-arid climate, characterized by relatively lower annual precipitation. This climatic condition makes the region more susceptible to drought, especially during periods of below-average rainfall. The demand for water for agricultural irrigation can also stress water resources in the region.

Kansas Region G is part of the Ogallala Aquifer region, a critical groundwater source. Excessive groundwater pumping during drought conditions can lead to aquifer depletion, posing long-term challenges for water availability. Kansas Region G also relies on reservoirs and rivers for water supply, and prolonged drought can lead to reduced water levels and increased competition for available water resources.

Droughts are regularly monitored by multiple federal agencies using a number of different indices. One of the best indicators of historic drought periods is provided by the U.S. Drought Monitor. The U.S. Drought Monitor provides a summary of drought conditions across the United States, including all Kansas counties. Often described as a blend of art and science, the map is updated weekly by combining a variety of data-based drought indices and indicators, along with local expert input, into a single composite drought indicator. The following table details the U.S. Drought Monitor categories:

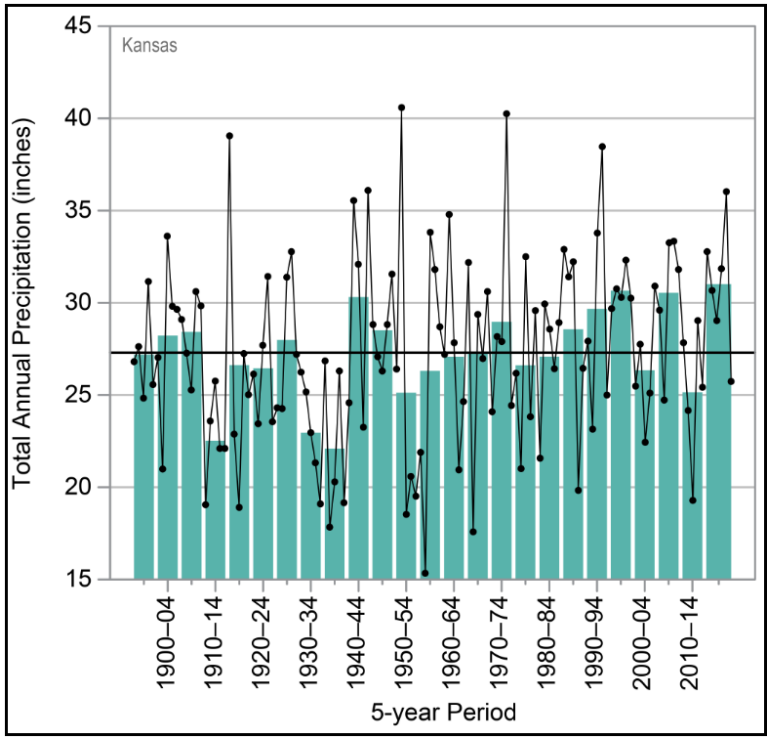
Table 63: U.S. Drought Monitor Categories

Rating	Described Condition
None	No drought conditions
D0	Abnormally Dry
D1	Moderate Drought
D2	Severe Drought
D3	Extreme Drought
D4	Exceptional Drought

Source: U.S. Drought Monitor

Precipitation data is collected by the NWS throughout the State of Kansas. Additional rainfall data is also collected by the NWS through citizen weather rainfall sites. The following chart indicates annual precipitation averages for Kansas from 1895 to 2020:

Chart 16: Kansas Region G Observed Annual Precipitation



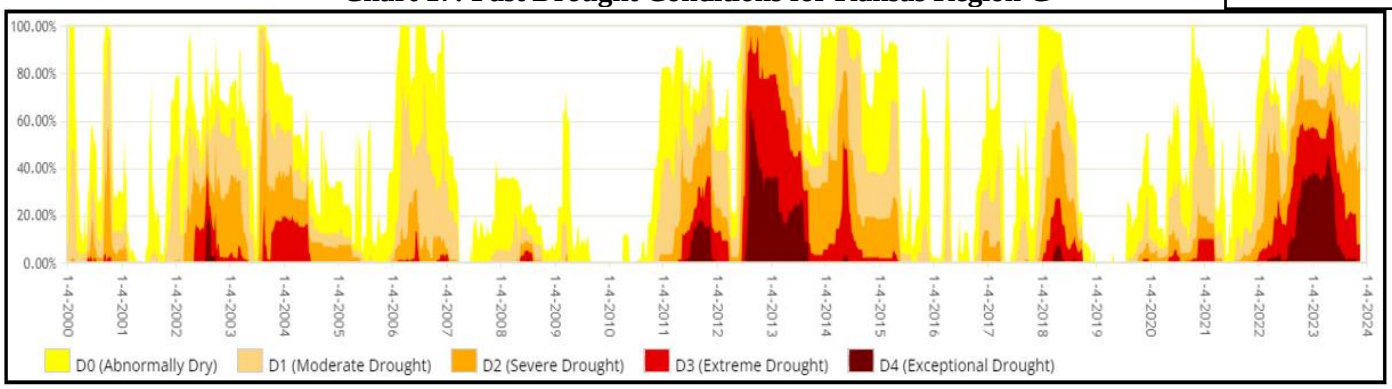
Source: NOAA NCEI State Climate Summary 2022 for Kansas

Current drought conditions, which change weekly based, may be found on the U.S. Drought Monitor website.

4.10.3 Previous Occurrences

Drought is a normal climate pattern that has occurred in varying degrees of length, severity, and size. The following chart, from the U.S. Drought Monitor shows past drought conditions for Kansas Region G:

Chart 17: Past Drought Conditions for Kansas Region G



Source: U.S. Drought Monitor
Note: Represents averaged conditions

Comprehensive data on droughts, drought impacts, and drought forecasting is extremely limited and often inaccurate. Due to the complexity of drought monitoring and the large areas droughts impact, agencies have difficulty quantifying and standardizing drought data.

Historical data was gathered from the U.S. Drought Monitor weekly reports for 2009 and 2022. This data was compiled and aggregated to provide a yearly estimate of the percentage of Kansas Region G in each Drought Monitor category.

Table 64: Percentage Area in U.S. Drought Monitor Category

Year	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
2022	31.0%	69.0%	47.1%	32.9%	12.4%	0.5%
2021	84.6%	13.4%	0.0%	0.0%	0.0%	0.0%
2020	53.3%	46.7%	27.9%	0.0%	0.0%	0.0%
2019	78.9%	21.1%	10.7%	3.5%	0.0%	0.0%
2018	22.4%	77.6%	76.1%	57.9%	30.1%	0.0%
2017	56.3%	43.7%	6.8%	0.0%	0.0%	0.0%
2016	85.0%	15.0%	7.0%	0.0%	0.0%	0.0%
2015	46.8%	53.2%	32.5%	0.0%	0.0%	0.0%
2014	0.0%	100.0%	70.2%	19.3%	2.4%	0.0%
2013	27.5%	72.5%	57.3%	48.9%	33.0%	0.7%
2012	19.8%	80.2%	74.4%	50.1%	35.9%	10.9%
2011	5.1%	94.9%	61.8%	36.6%	11.4%	0.0%
2010	94.2%	5.8%	3.8%	0.0%	0.0%	0.0%
2009	98.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: U.S. Drought Monitor

The Secretary of Agriculture is authorized to designate counties as disaster areas to make emergency loans available to producers suffering losses in those counties and in counties that are contiguous to a designated county. USDA Secretarial disaster designations must be requested of the Secretary of Agriculture by a governor or the governor's authorized representative, and there is an expedited process for drought. The following table represents the total number of Secretarial Disaster Declarations, by county, for the Kansas Region G:

Table 65: Secretarial Drought Disaster Declarations, 2019 -2023

County	2022	2021	2020	2019
Butler	5	0	0	0
Cowley	4	1	0	0
Harper	3	0	0	0
Harvey	5	0	0	0
Kingman	3	0	0	0
Marion	4	0	0	0

Table 65: Secretarial Drought Disaster Declarations, 2019 -2023

County	2022	2021	2020	2019
McPherson	4	0	0	0
Reno	4	0	0	0
Rice	2	0	0	0
Sedgwick	4	0	0	0
Sumner	4	0	0	0

Source: USDA Farm Service Agency

4.10.4 Probability of Future Events

Historically, drought has affected Kansas Region G on a reoccurring basis. In reviewing historical data from the U.S. Drought Monitor weekly reports for Kansas Region G from 2009 through 2022 a weekly average can be created indicating the percentage time in each Drought Monitor category. This average can be used to extrapolate the potential likelihood of future drought conditions.

Table 66: Estimated Weekly Probability of Kansas Region G Being in U.S. Drought Monitor Category

None	D0-D4	D1-D4	D2-D4	D3-D4	D4
50.21%	49.51%	33.97%	17.80%	8.94%	0.86%

Data: U.S. Drought Monitor

Kansas Region G can experience rapid droughts, with a sudden onset of intense dry periods following a period of normal precipitation. While these conditions may last only a few months, they can result in agricultural losses, water supplies shortages, and low stream and river volume.

While predicting drought provides many challenges, NOAA's National Integrated Drought Information System provides the Northeast Drought Early Warning System to improve drought early warning capacity. The system is a network of regional and national partners that share information and coordinate actions to help communities in the region cope with drought. Developing and implementing the system allows Kansas to quickly respond to emerging drought conditions Through developing regional systems, the National Integrated Drought Information System is building the foundation for a nationwide system to improve drought forecasting.

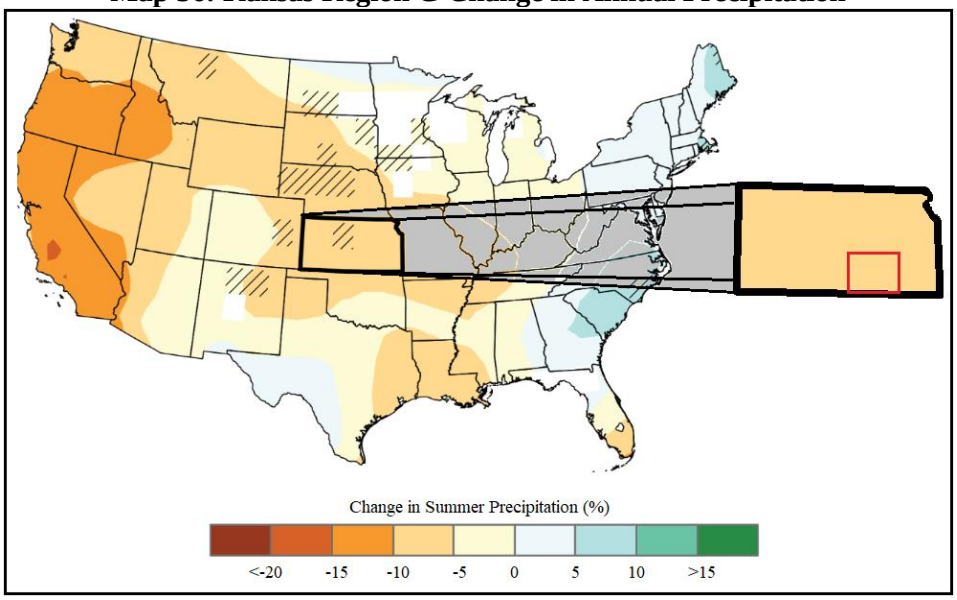
4.10.5 Projected Changes in Hazard Location, Intensity, Frequency, and Duration

According to the National Institutes of Health National Center for Biotechnology Information publication Global Drought Trends and Future Projections "Drought is one of the most difficult natural hazards to quantify and is divided into categories (meteorological, agricultural, ecological and hydrological), which makes assessing recent changes and future scenarios extremely difficult." However, using long term data estimates of future drought conditions can be determined through a combination of climate modeling, historical data analysis, and scientific assessments. This modelling takes into account factors such as temperature, precipitation, soil moisture, and other relevant variables.

Current modelling from the NOAA State Climate Summary 2022 for Kansas suggests that projections of overall annual precipitation are uncertain, summer precipitation is projected to decrease across the state, while winter precipitation is projected to increase. Winter precipitation increases could benefit winter wheat production, but summer drying would have negative impacts on rain-fed summer crops and rangeland. Although increased precipitation is projected, naturally occurring droughts are projected to be more intense because higher temperatures will increase evaporation rates.

The following map indicates the expected annual increase in precipitation for Kansas Region G:

Map 36: Kansas Region G Change in Annual Precipitation



Source: NOAA NCEI State Climate Summary 2022 for Kansas

The NOAA NCEI State Climate Summary 2022 for Kansas indicates that the intensity of future droughts is projected to increase. Although projections of overall precipitation are uncertain, higher temperatures will increase the rate of soil moisture loss during dry spells, leading to more serious conditions during future naturally occurring droughts, including an increase in the occurrence and severity of wildfires.

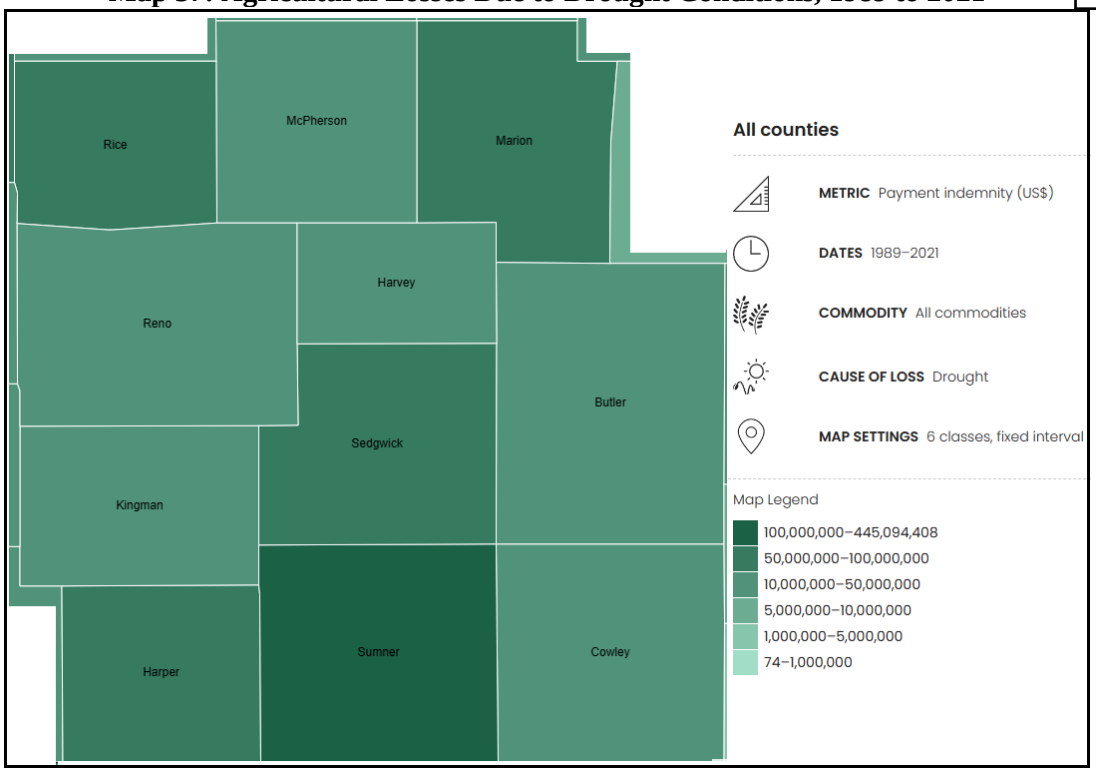
4.10.6 Vulnerability and Impact

Droughts are rarely a direct cause of death, though the associated heat, dust, and stress can all contribute to increased mortality. However, drought can severely challenge a public water supplier through depletion of the raw water supply and greatly increased customer water demand. Even if the raw water supply remains adequate, problems due to limited treatment capacity or limited distribution system capacity may be encountered. Water supply planning is the key to minimizing the effects of drought on the population. Public water suppliers should continue to work to identify vulnerabilities and develop infrastructure, conservation plans, and partnerships to reduce the likelihood of running out of water during a drought.

In general, critical facilities and infrastructure are not directly vulnerable to losses as a result of drought. However, there is a potential that operations could be impacted by power failures caused by either increased utility demand or damaged power delivery infrastructure. In addition, drinking water infrastructure may be specifically vulnerable to the impacts of drought. Any decrease in groundwater supplies would stress this infrastructure and may cause shortages or rationing.

Drought conditions can cause significant agricultural impacts. In addition to obvious losses in yields in both 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 wildfires increases substantially during extended droughts, which in turn places both human and wildlife populations at higher levels of risk. The following map from the United States Department of Agriculture details total agricultural losses, by county, due to drought conditions from 1989 to 2021:

Map 37: Agricultural Losses Due to Drought Conditions, 1989 to 2021



Source: USDA

Although environmental losses are difficult to quantify, increasing public awareness and concern for environmental quality has forced public officials to focus greater attention and resources on these effects. Environmental losses are the result of damage to plant and animal species, wildlife habitat, and air and water quality, wildfires, degradation of landscape quality, loss of biodiversity, and soil erosion. Some of the effects are short-term and conditions quickly return to normal following the end of the drought. Other environmental effects linger for some time or may even become permanent. Wildlife habitat, for example, may be degraded through the loss of wetlands, lakes, and vegetation. However, many species will eventually recover from it if it is a temporary aberration. However, the degradation of landscape quality, with increased soil erosion, may lead to a more permanent loss of biological productivity of the landscape.

Governmental operations, assets, and facilities will likely experience minimal impacts from drought conditions, unless there are substantial power, communications, or water outages. However, reduced water availability would likely have an immediate impact on firefighting efforts in urban and suburban areas as fire suppression equipment requires a minimum level of water pressure to activate. As of this plan, no county facilities or assets have been impacted by drought, and no dollar losses reported.

Potentially Vulnerable Community Lifelines

Water utilities are particularly vulnerable to drought conditions due to the direct impact on water availability and supply. The May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report indicates the following loss values for community lifelines:

Table 67: Economic Impacts of Loss of Service Per Capita Per Day (in 2022 dollars)

Category	Loss
Loss of Wastewater Services	$66
Loss of Water Services	$138

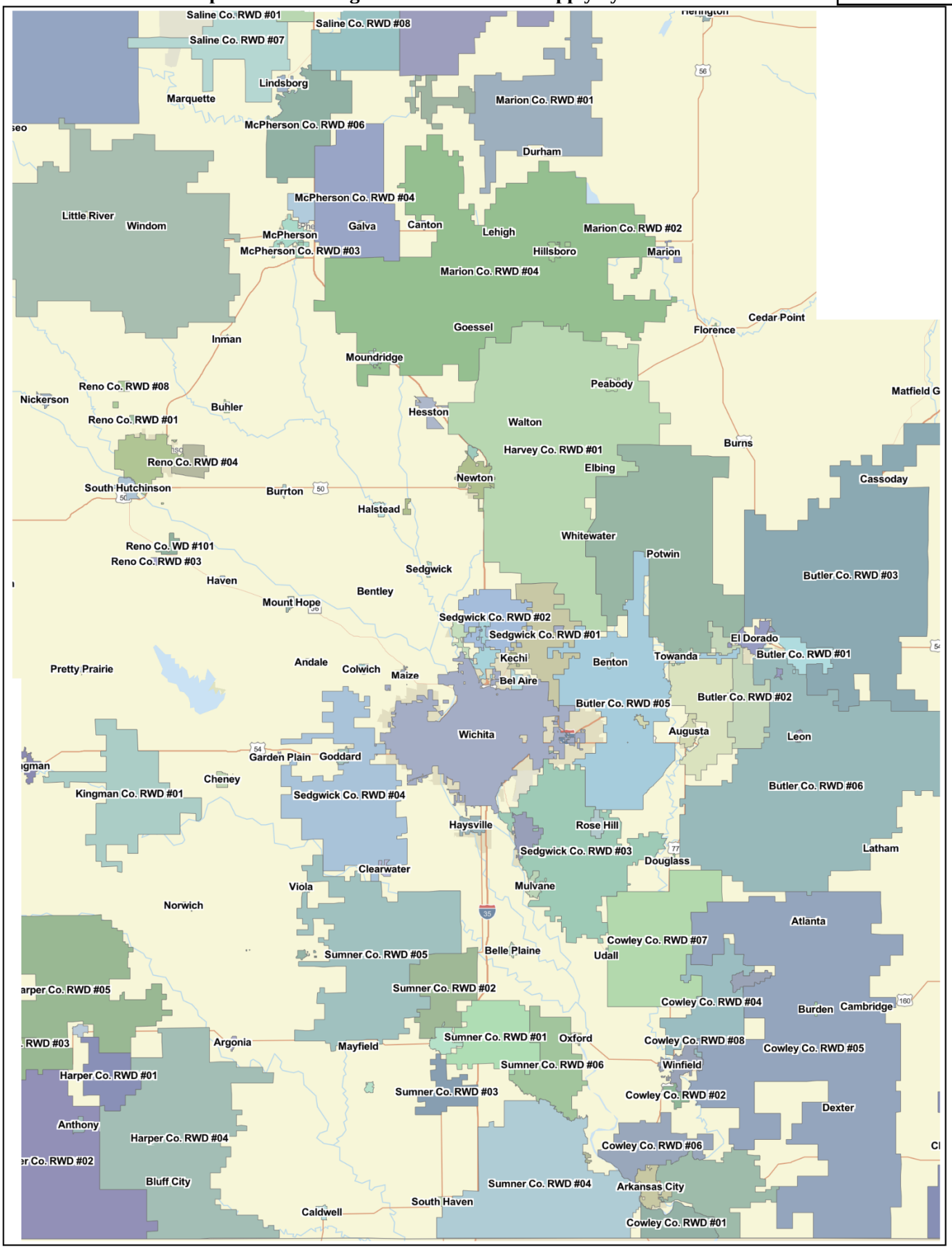
Source: May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report

Water utilities can be affected by drought through:

- Reduced Water Availability: The reduction in water availability directly impacts the amount of w utilities can draw from local sources.
- Lower Reservoir Levels: Lower reservoir levels can affect the ability to meet water demand during periods of high usage.
- Declining Groundwater Levels: Lower groundwater levels make it more challenging for utilities to extract water.
- Water Quality Challenges: Lower water levels can lead to higher concentrations of contaminants, minerals, and sediments in the available water sources, requiring more extensive and costly treatment processes.
- Increased Treatment Costs: Treating water from depleted or lower-quality sources during drought conditions may require additional treatment steps, technologies, or chemicals, leading to increased operational costs for water utilities.
- Competition for Water Resources: During droughts, there is increased competition for limited water resources among various users, including agriculture, industry, and households. Water utilities may face challenges in securing sufficient water supplies amid this heightened competition.
- Impact on Water Infrastructure: Reduced water flow in rivers and streams can expose water infrastructure, such as pipelines, to the risk of corrosion.
- Water Use Restrictions: To conserve water during droughts, authorities may implement water use restrictions and conservation measures. These restrictions can impact water utilities' revenue and their ability to meet customer demand.

In Kansas Region G, a public water supply system is defined by Kansas Statutes Annotated (K.S.A.) 65-162a and Kansas Administrative Regulations (K.A.R.) 28-15a-2 as a "system for delivery to the public of piped water for human consumption that has at least 10 service connections or regularly serves at least 25 individuals daily at least 60 days out of the year." These systems are regulated by the Kansas Department of Health and Environment. Private domestic groundwater wells are not considered public water supply systems. Kanas Region G and participating jurisdictions are covered by the following domestic water suppliers:

Map 38: Kansas Region G Public Water Supply System Boundaries



Source: State of Kansas

Drought can severely challenge a public water supplier through depletion of the raw water supply and greatly increased customer water demand. Even if the raw water supply remains adequate, problems due to limited treatment capacity or limited distribution system capacity may be encountered. Water supply planning is the key to minimizing the effects of drought on the population. Public water suppliers should continue to work to identify vulnerabilities and develop infrastructure, conservation plans, and partnerships to reduce the likelihood of running out of water during a drought.

Communities and citizens served by private wells rather than water supply districts may be at higher risk to drought conditions, and may see the following impacts:

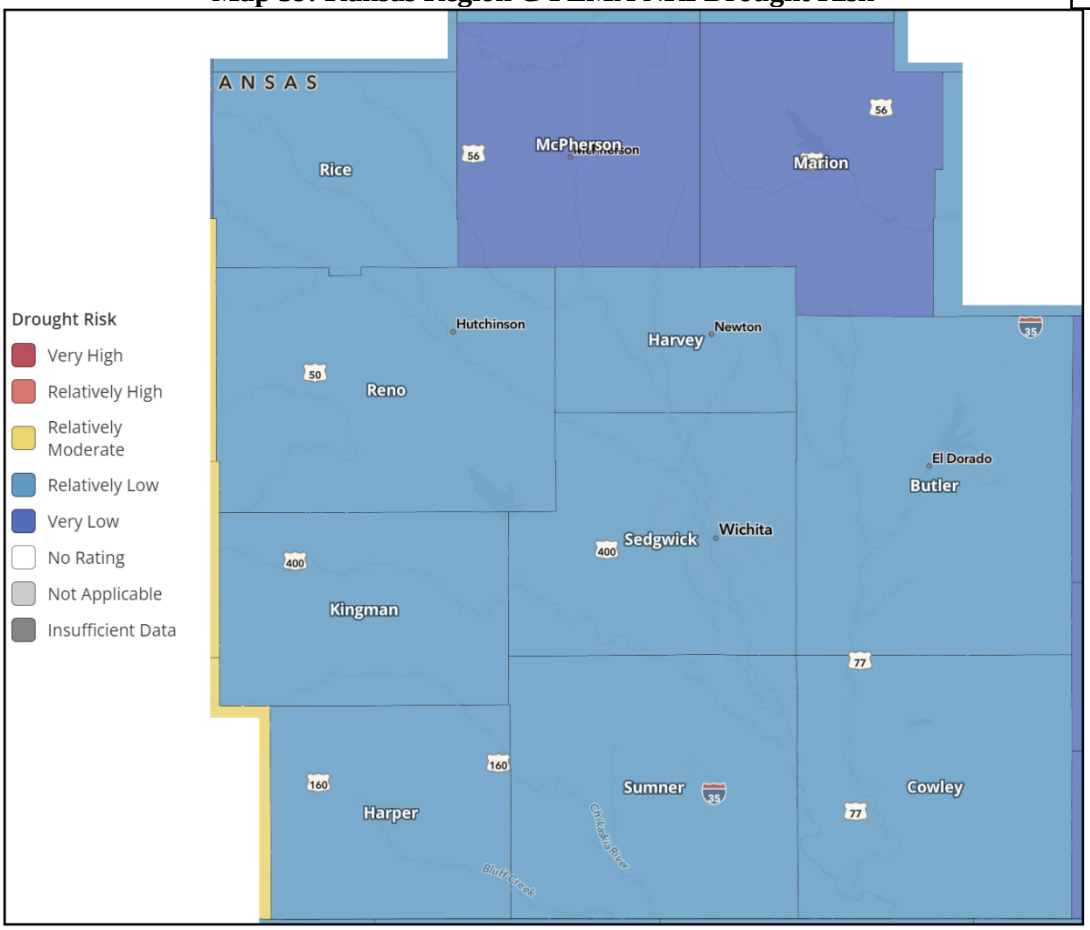
- Lowering of Water Table: Drought conditions can lead to a lowering of the water table, which is the level at which groundwater is located. Private wells that rely on groundwater may experience reduced yields or, in extreme cases, may run dry.
- Decreased Well Recharge: Drought reduces the amount of precipitation, leading to decreased recharge of groundwater. Private wells depend on a sustainable recharge rate to maintain a consistent and reliable water supply.
- Increased Competing Demands: During a drought, increased water demand for agricultural irrigation, municipal water supply, and other uses can create competition for the available groundwater. Private wells may face challenges due to this increased demand.
- Water Quality Concerns: Lower groundwater levels during droughts can lead to changes in water quality. Concentrations of minerals, contaminants, and pollutants may increase, affecting the suitability of water for drinking and other uses.

Should it be required to drill a private well deeper to accommodate for drought conditions impacting the level of the water table, on average, the cost to drill a private water well in the United States can range from $15 to $45 per foot. However, it's important to note that this is a general estimate, and actual costs can vary based on geological and hydrogeological conditions and well depth.

FEMA NRI

Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating counties from drought:

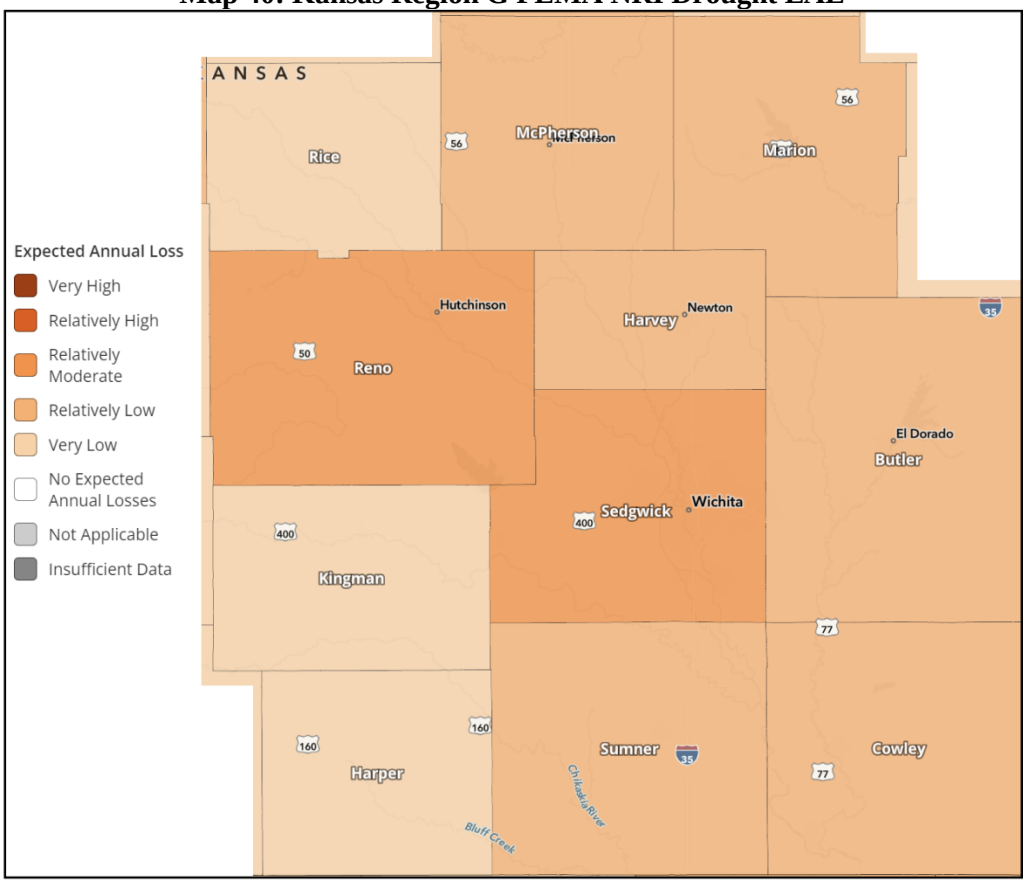
Map 39: Kansas Region G FEMA NRI Drought Risk



Source: FEMA NRI

As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for drought for participating counties within Kansas Region G:

Map 40: Kansas Region G FEMA NRI Drought EAL



Source: FEMA NRI

The following table indicates the FEMA NRI and EAL analysis for each participating Kansas Region G county for drought:

Table 68: Kansas Region G FEMA NRI and EAL for Drought by County

County	Risk Index	EAL
Butler	Relatively Low	Relatively Low
Cowley	Relatively Low	Relatively Low
Harper	Relatively Low	Very Low
Harvey	Relatively Low	Relatively Low
Kingman	Relatively Low	Very Low
Marion	Very Low	Relatively Low
McPherson	Very Low	Relatively Low
Reno	Relatively Low	Relatively Moderate
Rice	Relatively Low	Very Low
Sedgwick	Relatively Low	Relatively Moderate
Sumner	Relatively Low	Relatively Low

Source: FEMA NRI

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 69: Drought Consequence Analysis

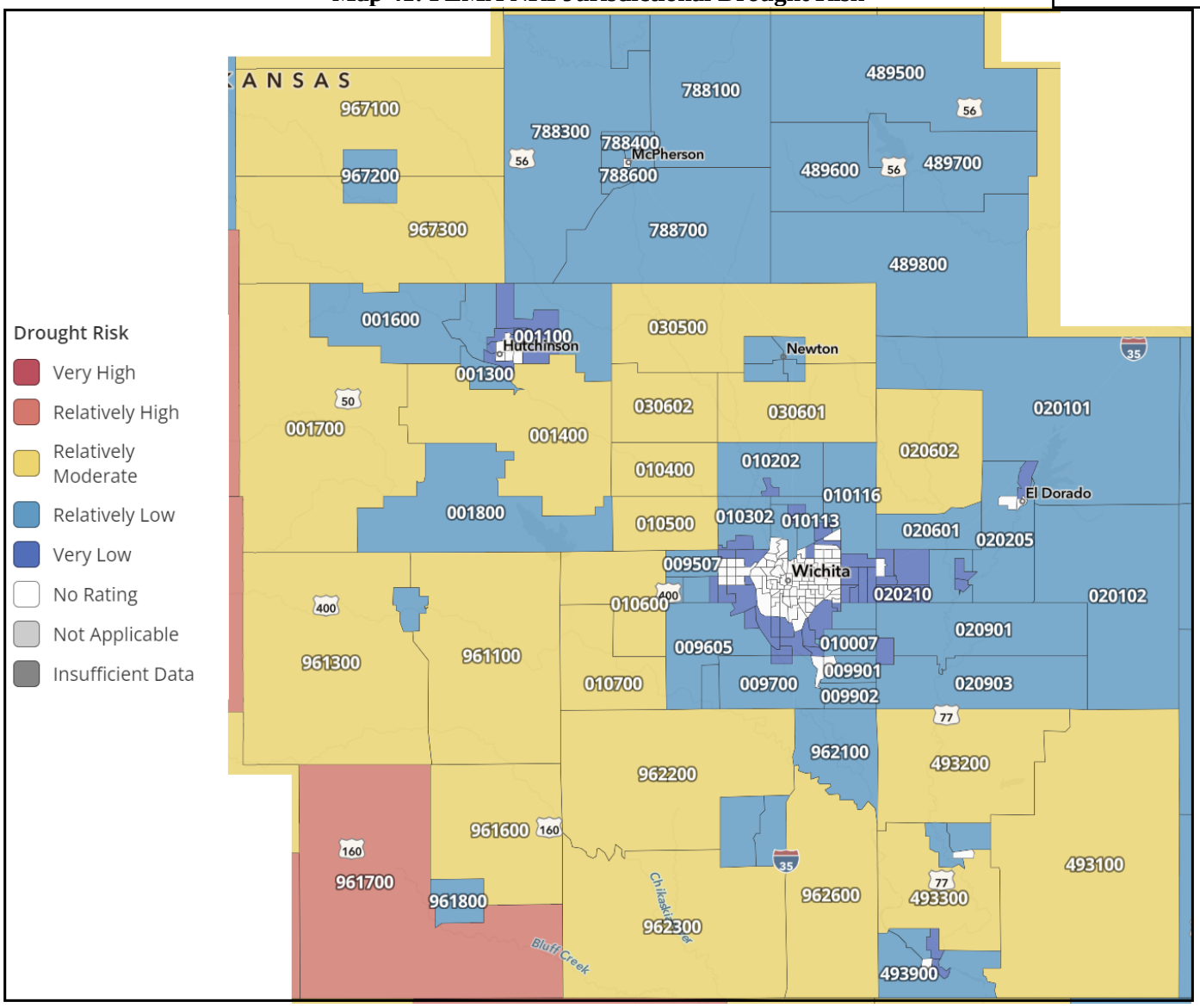
Subject	Potential Impacts
Impact on the Public	If the drought coincides with warmer months, vulnerable populations may face an increased risk of dehydration, death, heat-related illness, heat stroke. Lower quantities of water may also increase the likelihood of contamination due to higher concentrations of bacteria. During droughts, dry soils and wildfires increase the number of airborne particles, such as pollen and smoke, which can worsen chronic respiratory illnesses.
Impact on Responders	Reduced water availability would likely complicate firefighting efforts in urban and suburban areas where wildfire-fighting tactics such as chemical retardants and controlled burns are less suitable. Some fire suppression equipment requires a minimum level of water pressure to activate. If the drought coincides with warm months, first responders may face increased risk of heat-related injuries or death.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. While the expectation is minimal, this threat may impact an agency's ability to implement their continuity plan based on the hazard's potential to impact power, communications, or water outages. Critical life-saving activities and fire suppression will be directly impacted by these outages.
Delivery of Services	Droughts may impact the delivery of goods and services if there are shortages of raw materials.
Property, Facilities, and Infrastructure	Drought conditions may threaten levels or quality of municipal public water supplies or impact small communities and/or private potable water wells.
Impact on Environment	The potential of drought-related impacts could have significant impacts on supplies of animal feed, livestock, meat and dairy products, and processed grain products, and on crop production. Drought conditions may also increase the potential for fires. Drought is also associated with insect infestations, plant disease, wind erosion of soil, and decrease in levels of water produced by natural aquifers.
Economic Conditions	The economic impacts from a drought could be significant. Droughts have the potential to drain state, and local resources, which will have a significant fiscal impact on the local government.
Public Confidence in Governance	Droughts can adversely affect the public, first responders, infrastructure, agriculture, economy, and overall operations. Direct, effective, and timely response by all levels of government is required for public confidence in the state's governance, especially in recognizing and mitigating economic impacts of the drought.

4.10.7 Jurisdictional Risk and Vulnerability

To help understand the risk and vulnerability to drought conditions of participating jurisdictions mapping from the FEMA NRI was run on a census tract level. As the NRI does not generate mapping for individual jurisdictions, census tract analysis is the closest analogue available to understand individual jurisdiction conditions.

Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating jurisdictions (as indicated by census tract) from drought:

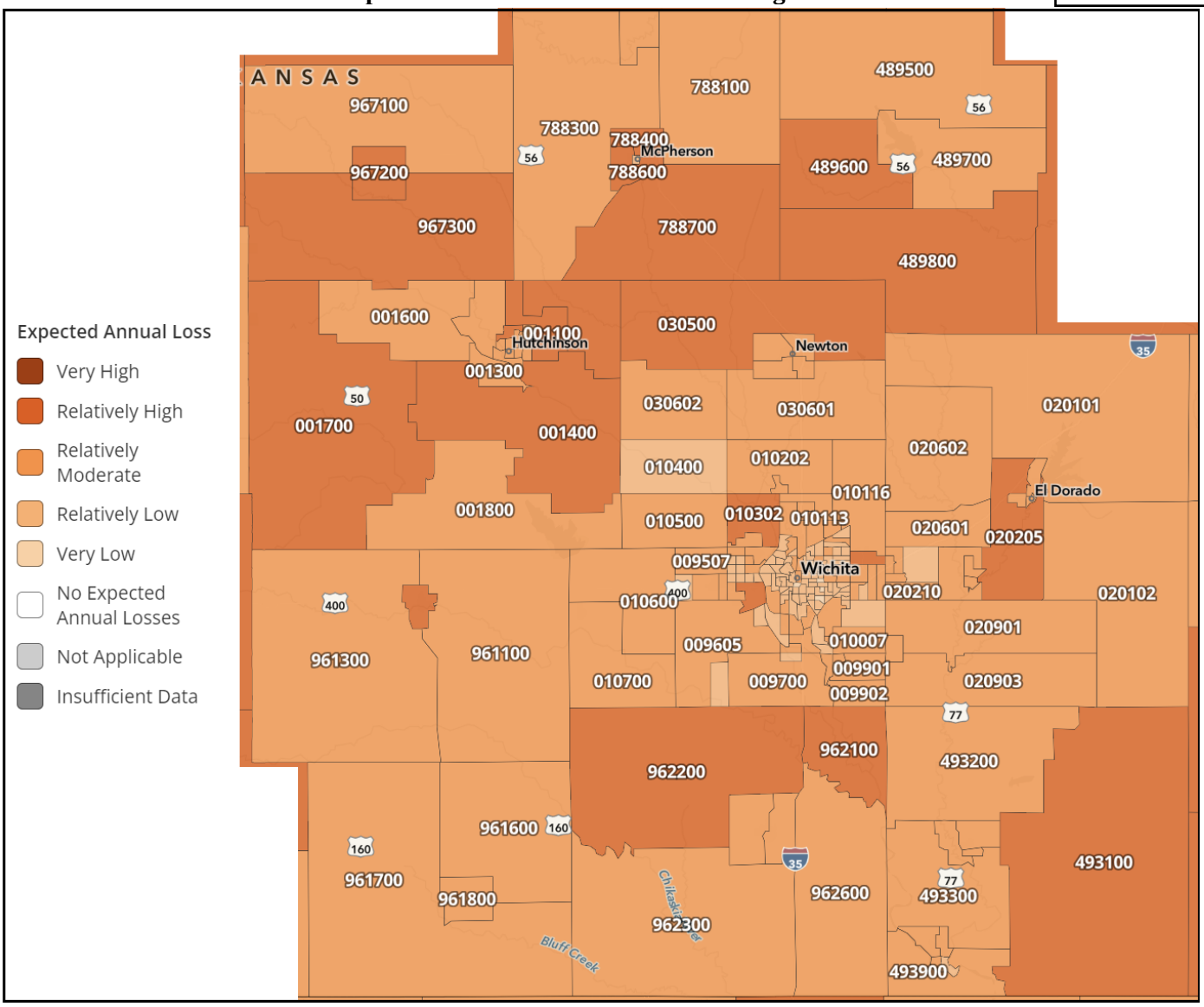
Map 41: FEMA NRI Jurisdictional Drought Risk



Source: FEMA NRI

As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for drought for participating jurisdictions (as indicated by census tract) within Kansas Region G:

Map 42: FEMA NRI Jurisdictional Drought EAL



Source: FEMA NRI

FEMA NRI data tables, by census tract, are included in Appendix C. These data tables contain the risk index and EAL along with total building valuation and agricultural valuation allowing for an understanding of potential structural and agricultural vulnerability on a jurisdictional basis.

At greater risk may be the vulnerable populations, including the especially young, the elderly, and those below the poverty level. Hazard occurrences can exacerbate existing vulnerabilities and create new challenges. Vulnerable populations may have pre-existing health conditions that make them more susceptible to heat-related illnesses and dehydration, both of which can be exacerbated during droughts. Persons on fixed incomes and with limited resources may face difficulties in adapting their homes to withstand hazard conditions or may lack financial resources to cope with the increased costs of food, water, and energy.

The following table details potentially vulnerable populations by Kansas Region G county, along with the change in the populations:

Table 70: Kansas Region G Drought Vulnerable Populations

County	Under 5	Over 65	In Poverty
Butler County	3,571	11,050	6,468
Cowley County	2,038	6,459	4,801
Harper County	313	1,240	894
Harvey County	1,837	7,077	3,266
Kingman County	388	1,509	874
Marion County	615	2,814	1,253
McPherson County	1,542	6,228	2,630
Reno County	3,219	12,813	8,109
Rice County	528	1,933	1,216
Sedgwick County	33,001	83,812	69,669
Sumner County	1,324	4,612	2,786

Source: US Census Bureau

Jurisdictional governmental operations, assets, and facilities will likely experience minimal impacts from drought conditions, unless there are substantial power, communications, or water outages. However, reduced water availability would likely have an immediate impact on firefighting efforts in urban and suburban areas as fire suppression equipment requires a minimum level of water pressure to activate. As of this plan, no jurisdictional facilities or assets have been impacted by drought, and no dollar losses reported.

4.11 Earthquake

4.11.1 Hazard Description

An earthquake is the result of a sudden release of energy in the Earth's crust that creates seismic waves that are typically caused by the rupturing of geological faults. A fault is a fracture or zone of fractures between two blocks of rock. Faults allow the blocks to move relative to each other, which, when rapidly occurring, causes an earthquake. When stresses in the crust exceed the strength of the surrounding rock, a rupture or break may occur fault plane. The point of origin of an earthquake is known as the hypocenter, which may be deep beneath the surface. The point at the surface directly above the hypocenter is known as the epicentre. Seismic waves radiate out from the hypocenter causing the ground to shake. These waves can travel long distance, but in general are strongest near the epicenter.

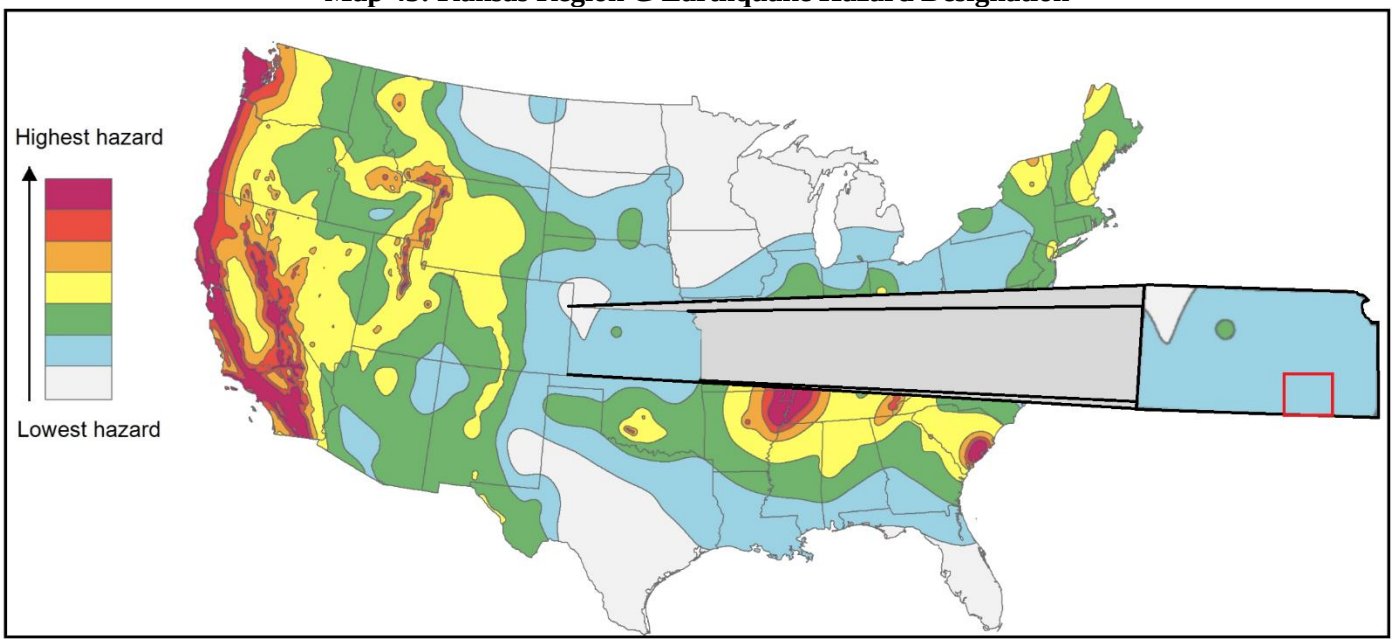
Earthquakes tend to occur along faults, which can be divided into three categories:

- Normal Fault: Resulting from pulling or tension with the overlying block moving down the dip of the fault plane
- Thrust (Reverse) Fault: Resulting from squeezing or compression, with the overlying block moving up the dip of the fault plane
- Strike-Slip (Lateral) Fault: Resulting from either type of stress, with the blocks moving horizontally past one another

4.11.2 Location and Extent

Kansas Region G is located within the North American tectonic plate. The North American Plate is a major tectonic plate that covers a significant portion of North America. Kansas is situated on this stable continental plate. Unlike regions near plate boundaries, where tectonic activity is more pronounced, Kansas generally experiences lower seismic activity.

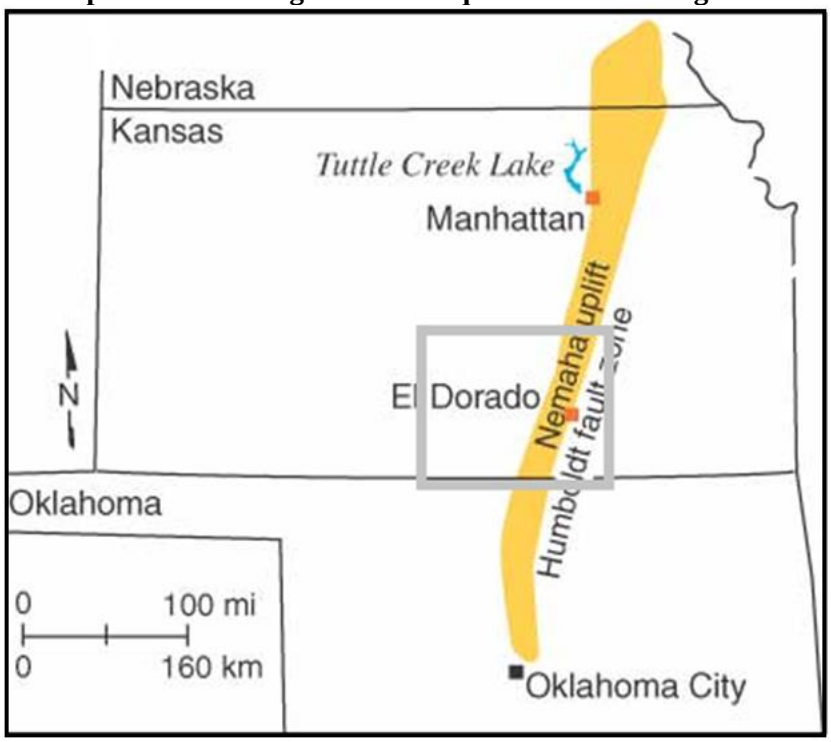
Map 43: Kansas Region G Earthquake Hazard Designation



Source: USGS

The Humboldt Fault (also known as the Nemaha Uplift) passes through the eastern portion of the region. Most earthquakes in the Humboldt Fault Zone are small and are detected only with instruments.

Map 44: Kansas Region G Earthquake Hazard Designation



While earthquakes are relatively rare in Kansas Region G compared to some other parts of the United States, the state is not completely immune to seismic activity. The increased frequency of induced earthquakes in parts of the central United States, including Kansas Region G, has been observed in recent years. These induced earthquakes are often associated with human activities such as wastewater injection from oil and gas production. It's important to note that the risk of earthquakes in any specific area can change over time based on various factors, including human activities and natural geological processes.

Two scales are used when referring to earthquake activity. Estimating the total force of an earthquake is the Richter scale, and the observed damage from an earthquake is the Modified Mercalli Intensity Scale. Additionally, both Peal Ground Acceleration (%g) and Velocity (cm/s) can be used to measure and quantify force and movement. Peak Ground Acceleration (PGA) is a measure of the maximum acceleration experienced by a point on the Earth's surface during an earthquake. It quantifies the intensity of ground shaking at a specific location and is a crucial parameter for assessing seismic hazard. PGA is typically measured in units of gravity (g), where 1 g is approximately equal to the acceleration due to Earth's gravity (about 9.81 meters per second squared or 32.2 feet per second squared). So, if the PGA at a location is 0.2 g, it means the ground acceleration during the earthquake was 20% of the acceleration due to gravity. PGA can vary significantly from one location to another during the same earthquake event. Factors that influence PGA include the earthquake's magnitude, depth, distance from the epicenter, and local geological conditions.

The following table equates the above referenced earthquake scales.

Table 71: Earthquake Magnitude Scale Comparison

Mercalli Scale Intensity	Verbal Description	Richter Scale Magnitude	Acceleration (%g)	Velocity (cm/s)	Witness Observations
I	Instrumental	1 to 2	0.17%	<0.1	None
II	Feeble	2 to 3	1.40%	1.1	Noticed only by sensitive people
III	Slight	3 to 4	1.40%	1.1	Resembles vibrations caused by heavy traffic
IV	Moderate	4	3.90%	3.4	Felt by people walking; rocking of free-standing objects
V	Rather Strong	4 to 5	9.20%	8.1	Sleepers awakened; bells ring

Table 71: Earthquake Magnitude Scale Comparison

Mercalli Scale Intensity	Verbal Description	Richter Scale Magnitude	Acceleration (%g)	Velocity (cm/s)	Witness Observations
VI	Strong	5 to 6	18.00%	16	Trees sway, some damage from falling objects
VII	Very Strong	6	34.00%	31	General alarm, cracking of walls
VIII	Destructive	6 to 7	65.00%	60	Chimneys fall and some damage to building
IX	Ruinous	7	124.00%	116	Ground crack, houses begin to collapse, pipes break
X	Disastrous	7 to 8	>124.0%	>116	Ground badly cracked, many buildings destroyed. Some landslides
XI	Very Disastrous	8	>124.0%	>116	Few buildings remain standing, bridges destroyed.
XII	Catastrophic	8 or greater	>124.0%	>116	Total destruction; objects thrown in air, shaking and distortion of ground

4.11.3 Previous Occurrences

The Kansas Geological Survey maintains earthquake records for the State of Kansas. Data indicates that while the State has had numerous earthquakes, the largest on record occurred in June 1867 in Wamego (Pottawatomie County) and was measured at VII on the Mercalli Scale. The following table details notable earthquake events, in descending order of magnitude, for the State of Kansas, with Kansas Region G location highlighted in bold:

Table 72: Kansas Earthquakes Greater Than Modified Mercalli Scale Intensity IV

Date	County	Nearest City	Mercalli Scale Intensity
4/24/1867	Pottawatomie	Wamego	VII
1/7/1906	Riley	Manhattan	VII
4/27/1879	Rooks	Stockton	VI
1/28/1932	Ellis	Ellis	VI
8/9/1931	Wyandotte	Turner	VI
8/9/1931	Wyandotte	Turner	VI
8/9/1931	Wyandotte	Turner	VI
3/18/1927	Doniphan	White Cloud	VI
11/8/1875	Shawnee	Topeka	V
4/13/1961	Norton	Norton	V
1/6/1956	Pratt	Coats	V
9/10/1942	Ellis	Hays City	V
2/20/1933	Norton	Norton	V
12/7/1929	Riley	Manhattan	V
10/21/1929	Geary	Junction City	V
9/23/1929	Riley	Manhattan	V
9/23/1929	Riley	Manhattan	V
8/16/2019	**Reno**	Hutchinson	IV
8/18/2019	**Reno**	Hutchinson	IV
12/2/1897	Wyandotte	Kansas City	IV
4/2/1948	**Sedgwick**	Beechwood	IV
11/26/1929	Clark	Ashland	IV
11/8/1928	Mitchell	Beloit	IV
1/7/1927	**McPherson**	McPherson	IV
7/26/1919	**Sedgwick**	Wichita	IV
7/26/1919	**Sedgwick**	Wichita	IV

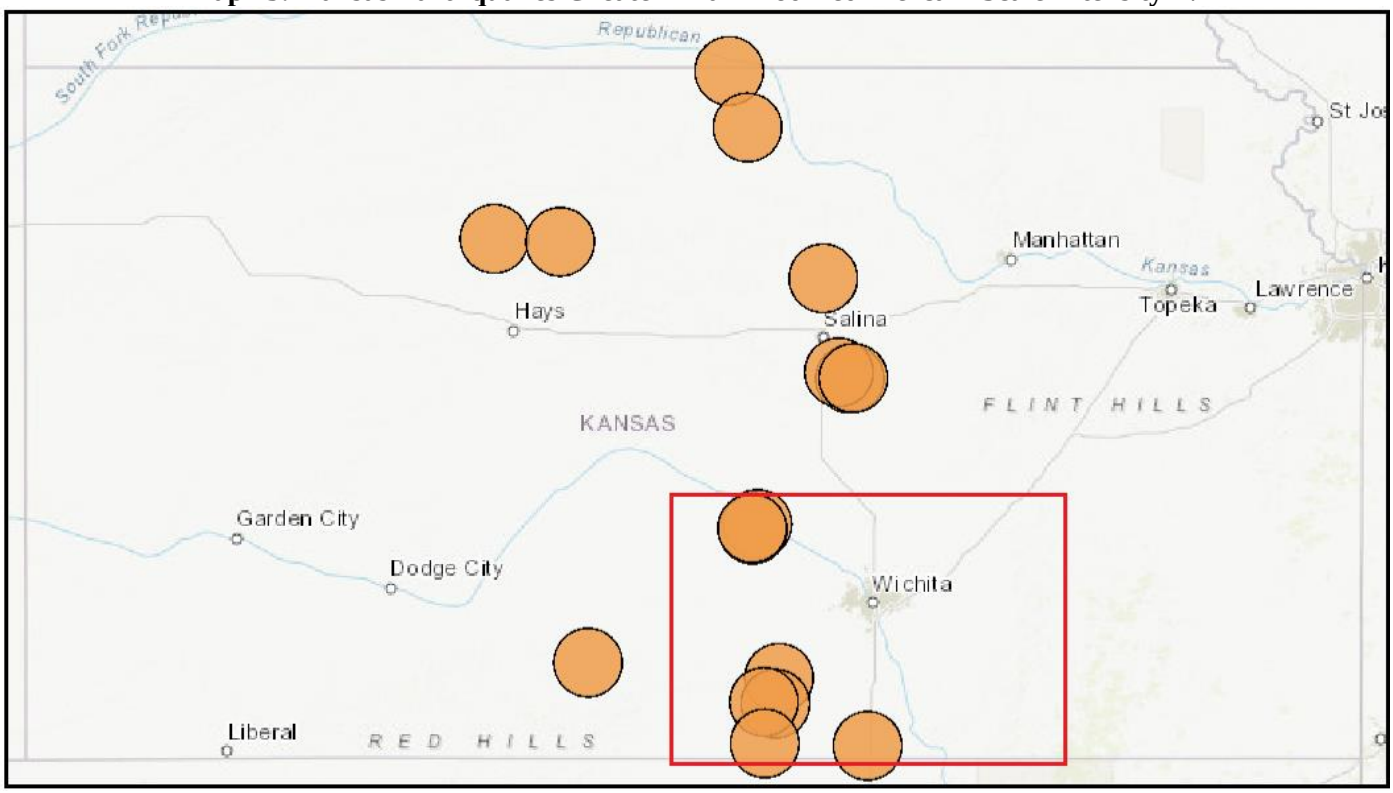
Table 72: Kansas Earthquakes Greater Than Modified Mercalli Scale Intensity IV

Date	County	Nearest City	Mercalli Scale Intensity
5/26/1919	**Sedgwick**	Wichita	IV
1/11/1907	**Cowley**	Arkansas City	IV
10/27/1904	Ford	Dodge City	IV

Source: Kansas Geological Survey

The following map from the Kansas Geological Survey illustrates the location of magnitude 4.0 or greater earthquakes in Kansas Region G from 1900 to 2023:

Map 45: Kansas Earthquakes Greater Than Modified Mercalli Scale Intensity IV



Source: Kansas Geological Survey

While earthquake events do occur in Kansas Region G, they tend to occur at a much lower intensity than more seismically active areas of the country

Additionally, the following earthquakes occurring outside of Kansas Region G have been felt.

- Medford, Oklahoma- January 2023: Magnitude 4.5
- Westin, Oklahoma – November 2016: Magnitude 5.0
- Pawnee, Oklahoma, September 2016: Magnitude 5.8
- Cherokee, Oklahoma - November 2015: Magnitude 4.2

4.11.4 Probability of Future Events

Predicting the occurrence of earthquakes is tremendously challenging due to the large number of factors involved. However, mapping from the USGS can help detail future earthquake probability. The following map, from the USGS, illustrates potential earthquake hazard for Kansas Region G:

Map 46: Expected Number of Occurrences or Damaging Earthquake Shaking in 10,000 Y

Source: USGS

4.11.5 Projected Changes in Location, Intensity, Frequency, and Duration

Due to the very long-term nature of geological process, including earthquakes, the seismic hazard for Kanas Region G is not to change during the life of this plan.

4.11.6 Vulnerability and Impact

Although earthquakes occur infrequently in Kansas Region G, a large magnitude quake could cause significant impacts. In a larger magnitude earthquake, ground movement can lead to building and infrastructure collapse. Additionally, concurrent hazards caused by earthquakes may include fire, hazardous material release, landslides, tsunamis (if in an offshore environment), and dam failure. As a result, and related to the impacts of building and infrastructure damage and collapse, deaths and injuries are likely.

Structures in Kansas Region G may be particularly vulnerable to the effect of a moderate to large earthquake as seismic design criteria are not required for either new building construction or old building renovation. Of particular concern to are unreinforced masonry buildings. An unreinforced masonry building is constructed of brick or masonry with no steel reinforcing bars. Because these buildings were not built using modern building codes, they are much more likely to experience damage or collapse during an earthquake. Currently, no surveys exist as to the extent of these buildings within Kansas Region G, or the state as a whole.

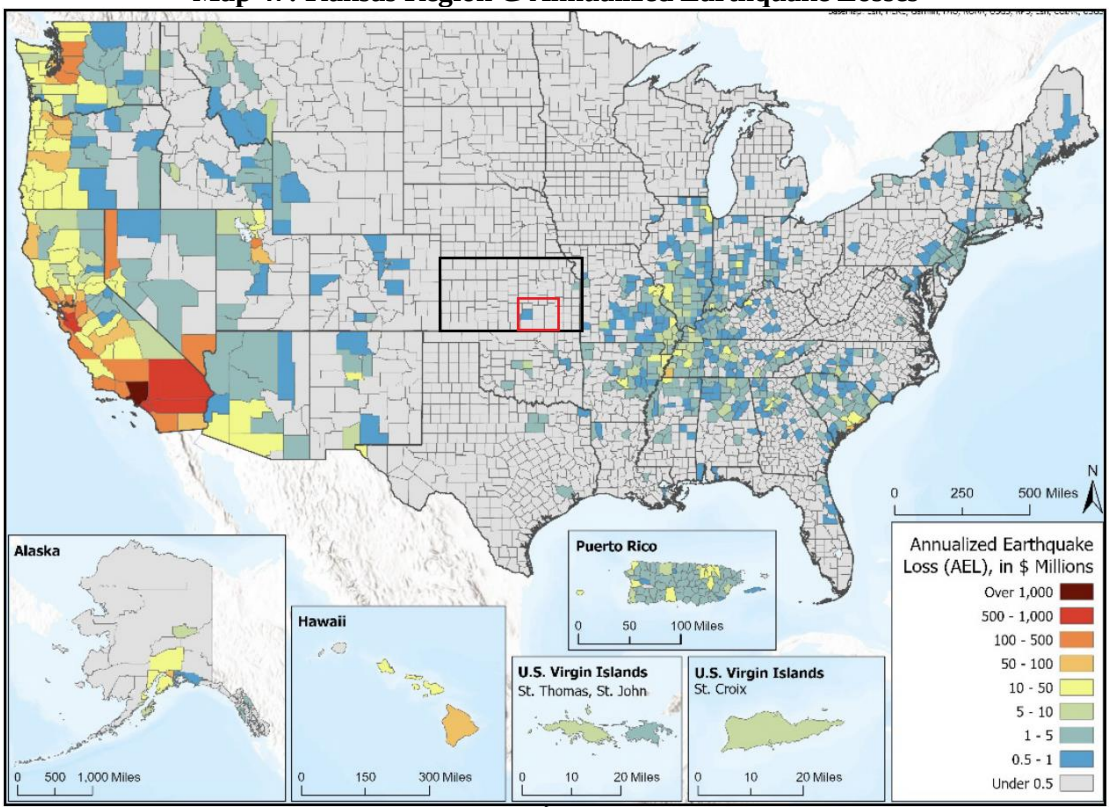
Critical facilities are at potential risk to earthquakes, especially those that store or transport handle hazardous materials. Unauthorized releases from these facilities may cause health impacts, environmental damage, or force road or area closures. Infrastructure is also at high risk to earthquakes, as extensive ground movement can either compress or rupture the infrastructure (pipelines, underground utilities) or cause a collapse (above ground utilities, bridges). Roads and other transportation infrastructure damaged during an earthquake would initially be unusable until inspected for structural integrity.

Recent earthquakes worldwide depict a pattern of steadily increasing damage and losses that are due to significant growth in earthquake-prone urban areas and vulnerability of older building stock, including buildings constructed within the past 20 years. In 2017 FEMA released the Hazus Estimated Annualized Earthquake Losses for the United States that reported recent earthquakes show a pattern of steadily increasing damages and losses due to:

- Significant growth in earthquake-prone urban areas
- Vulnerability of the older building stock

Data in the report details the Annualized Earthquake Loss measures, the annualized earthquake losses in any single year. The following maps details Annualized Earthquake Loss values for Kansas Region G:

Map 47: Kansas Region G Annualized Earthquake Losses



Source: FEMA

Using available Hazus data, the following potential losses from a worst-case scenario 2,500-year 6.7 Magnitude earthquake. However, these assumed vulnerabilities should be viewed as theoretical due to the tremendous number of variables involved in a potential earthquake event.

Table 73: Kansas Region G Probabilistic 6.7 Magnitude Earthquake Damages

County	Total Earthquake Losses	Displaced Households
Butler	$25,491,000	9
Cowley	$22,998,000	9
Harper	$5,855,000	1
Harvey	$14,206,000	7
Kingman	$4,740,000	1
Marion	$5,276,000	2
McPherson	$11,837,000	4
Reno	$25,671,000	11
Rice	$3,738,000	1
Sedgwick	$251,757,000	138
Sumner	$16,563,000	4

Source: KDEM and HAZUS

All county facilities and assets are vulnerable to earthquakes. However, the risk to local and county operations, facilities, and assets from earthquakes can vary significantly depending on the location and the level of seismic activity. Potential risks to operations, facilities, and assets from earthquakes include:

- Structural Damage: Earthquakes can cause significant structural damage to government buildings, including state capitol buildings, offices, and infrastructure such as bridges and roads. The extent of damage depends on the earthquake's magnitude, depth, and proximity to populated areas.

- Injury and Loss of Life: Earthquakes can result in injuries and loss of life among governme particularly if buildings are not constructed to withstand seismic forces or if there are insufficient emergency evacuation plans and procedures in place.
- Disruption of Government Operations: Earthquakes can disrupt the normal functioning of government operations. Damaged buildings may need to be evacuated or temporarily closed for repairs, which can affect the delivery of services.
- Communication Disruptions: Seismic activity can damage communication infrastructure, including telephone lines and data networks. This can hinder the ability to communicate internally and with the public during and after an earthquake.
- Power Outages: Earthquakes can lead to power outages by damaging electrical infrastructure such as substations and power lines. Government buildings may lose power, affecting critical operations and services.
- Loss of Records and Data: Earthquakes can result in the loss of important records and data stored in government buildings. This can have legal and operational implications.
- Emergency Response: Government agencies may need to activate emergency response plans, deploy first responders, and coordinate relief efforts in the aftermath of a significant earthquake.
- Budgetary Impact: The costs associated with repairing and retrofitting government buildings and infrastructure after an earthquake can be substantial and may strain state budgets.

Potentially Vulnerable Community Lifelines

Earthquakes can impact various community lifelines, critical systems and services that communities rely on for their functioning. Vulnerabilities arise due to the stress that an earthquake places on infrastructure, resources, and operational processes. As an overview, the May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report indicates the following loss values for community lifelines:

Table 74: Economic Impacts of Loss of Service Per Capita Per Day (in 2022 dollars)

Category	Loss
Loss of Electrical Service	$199
Loss of Wastewater Services	$66
Loss of Water Services	$138
Loss of Communications/Information Technology Services	$141

Source: May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report

Earthquakes can have significant impacts on roads, leading to various issues and challenges. Earthquakes can cause the following impacts:

- Damage to Roads and Highways: Earthquakes can cause cracking, buckling, and even complete collapse of roads and highways, making them impassable. This can disrupt the flow of traffic and hinder rescue and recovery efforts.
- Bridge Failures: Bridges are particularly vulnerable to seismic activity due to their structural complexity. Earthquakes can cause bridge piers to shift or collapse, decks to crack, or even entire spans to fail, severing critical transportation routes.
- Railway Disruptions: Earthquakes can damage railway tracks, bridges, tunnels, and signaling systems, leading to disruptions in train services. This not only affects passenger travel but also impacts the transportation of goods and materials.

The cost to conduct maintenance on a road can vary significantly depending on the types of work required. However, the average estimate for repairs on a per mile basis in 2019 was $14,750 per mile. The cost to replace a road can vary significantly based on several factors, including the type of road, local labor and material costs, the complexity of the project, and the specific requirements of the replacement. As a rough estimate, road construction costs can range from $1,000,000 to $10,000,000 per mile.

Earthquakes can impact electrical utilities in various ways, potentially leading to disruptions in service. include:

- Damage to Power Plants: Seismic activity can damage power plants, particularly older facilities that may not be designed to withstand strong earthquakes. Damage to generators, turbines, cooling systems, and other critical components can lead to the shutdown of power generation facilities, reducing the supply of electricity.
- Transmission Line Failures: Earthquakes can cause transmission towers to collapse, conductors to break, and insulators to fail, disrupting the flow of electricity from power plants to substations and distribution networks. This can lead to widespread power outages over large geographic areas.
- Substation Damage: Substations, which serve as hubs for electricity distribution and voltage regulation, can suffer damage to transformers, switchgear, and other equipment during earthquakes. This can disrupt the distribution of electricity to homes, businesses, and other consumers.
- Damage to Distribution Networks: Earthquakes can damage distribution poles, transformers, and power lines, causing localized power outages in affected areas. Fallen power lines can also pose safety hazards and increase the risk of electrical fires.
- Secondary Effects: Power outages resulting from earthquakes can have cascading effects on critical services such as water supply, transportation, healthcare, and emergency response, further exacerbating the impact of the disaster on affected populations.

Mapping detailing the location of electrical generation plants and high-capacity transmission may be found in Section 4.9.6, Map 34

The cost to replace electrical lines can vary widely based on several factors, including the type of electrical lines, the distance of the replacement, local labor and material costs, the complexity of the project, and any specific requirements or challenges involved. Additionally, costs can be significantly different for residential, commercial, or industrial projects. Additionally, urban and rural locations may have varying cost factors. As a rough estimate, the cost to replace electrical lines can range from a few thousand dollars to several thousand dollars per mile.

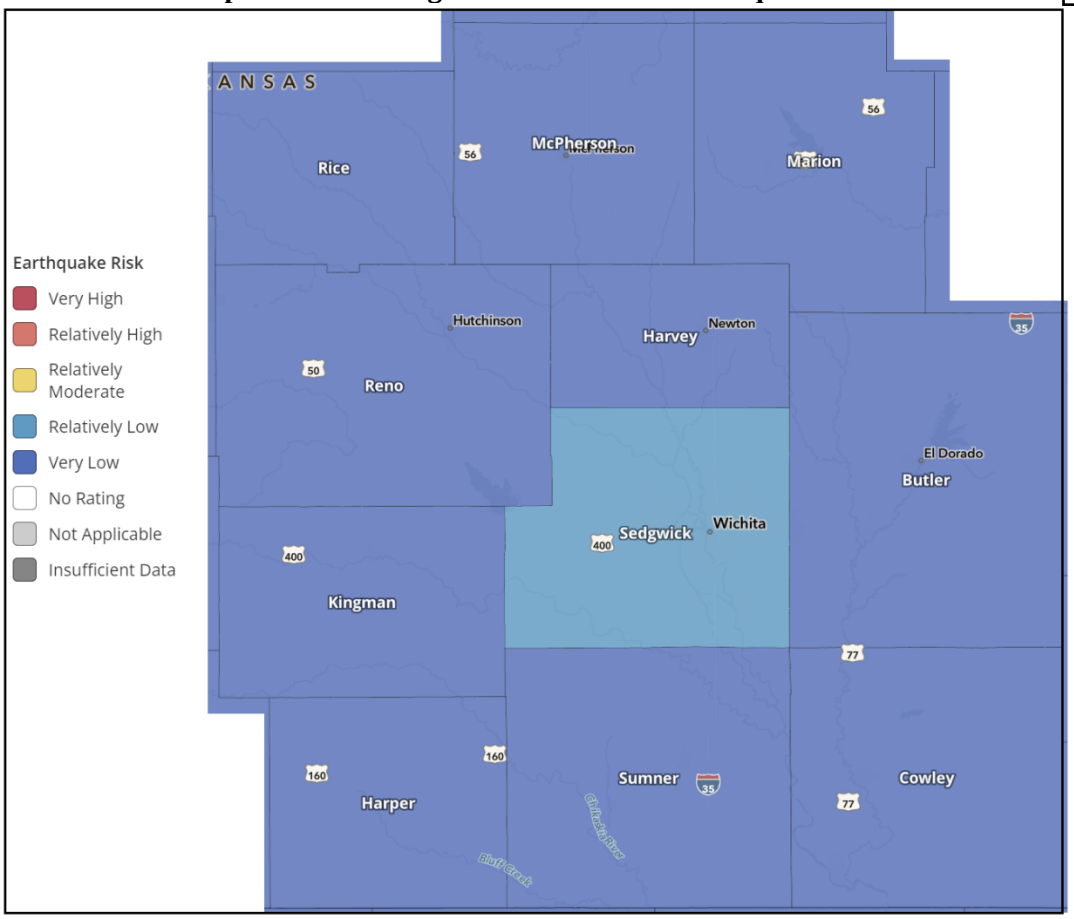
Data concerning the construction costs of electrical generating plants may be found in Section 4.9.6, Chart 15.

Hospitals and other smaller medical facilities may see an increase in severe injuries during a major earthquake events, and it is considered possible that this increase will impact or overload capacity. Mapping concerning hospitas and medical facilities may be found in Section 4.9.6, Map 35.

FEMA NRI

Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating counties from earthquakes:

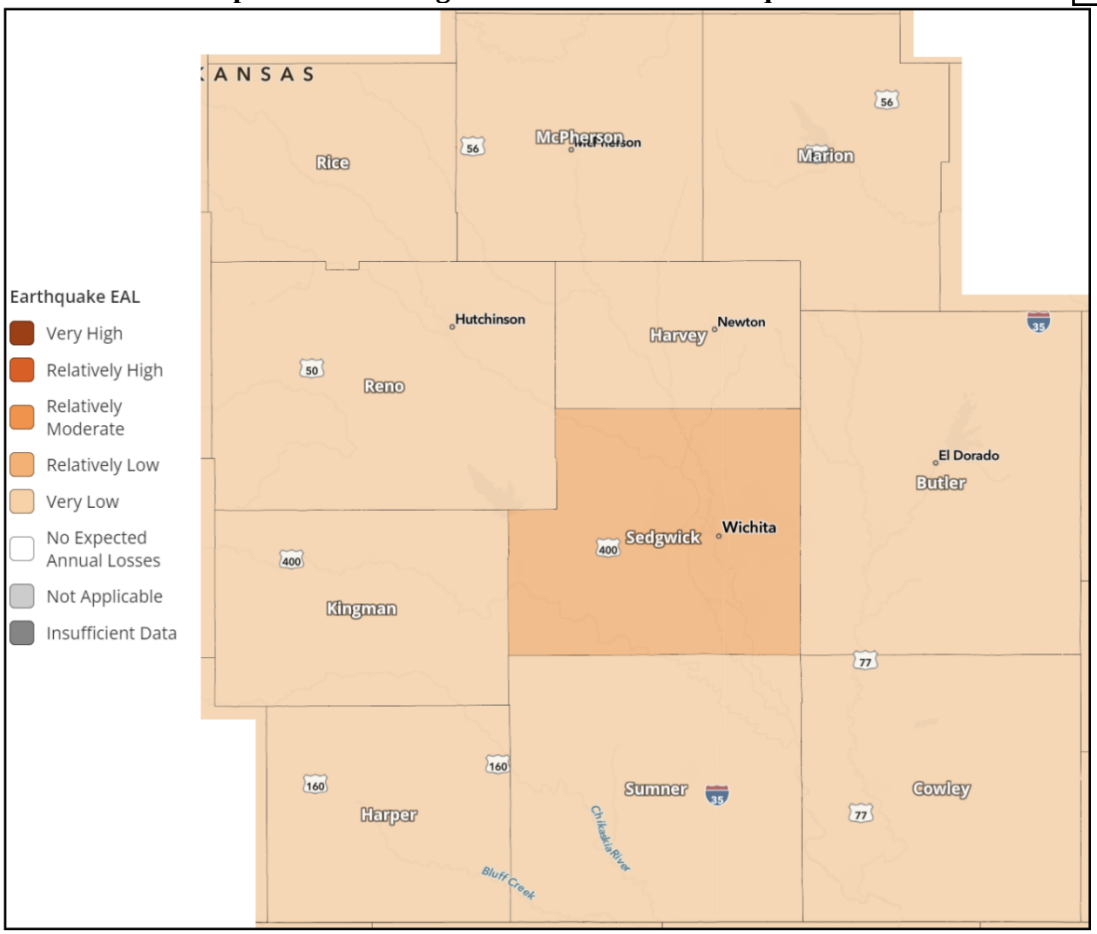
Map 48: Kansas Region G FEMA NRI Earthquake Risk



Source: FEMA NRI

As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for earthquakes for participating counties within Kansas Region G:

Map 49: Kansas Region G FEMA NRI Earthquake EAL



Source: FEMA NRI

The following table indicates the FEMA NRI and EAL analysis for each participating Kansas Region G county for earthquake:

Table 75: Kansas Region G FEMA NRI and EAL for Earthquake by County

County	Risk Index	EAL
Butler	Very Low	Very Low
Cowley	Very Low	Very Low
Harper	Very Low	Very Low
Harvey	Very Low	Very Low
Kingman	Very Low	Very Low
Marion	Very Low	Very Low
McPherson	Very Low	Very Low
Reno	Very Low	Very Low
Rice	Very Low	Very Low
Sedgwick	Very Low	Relatively Low
Sumner	Very Low	Very Low

Source: FEMA NRI

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 76: Earthquake Consequence Analysis

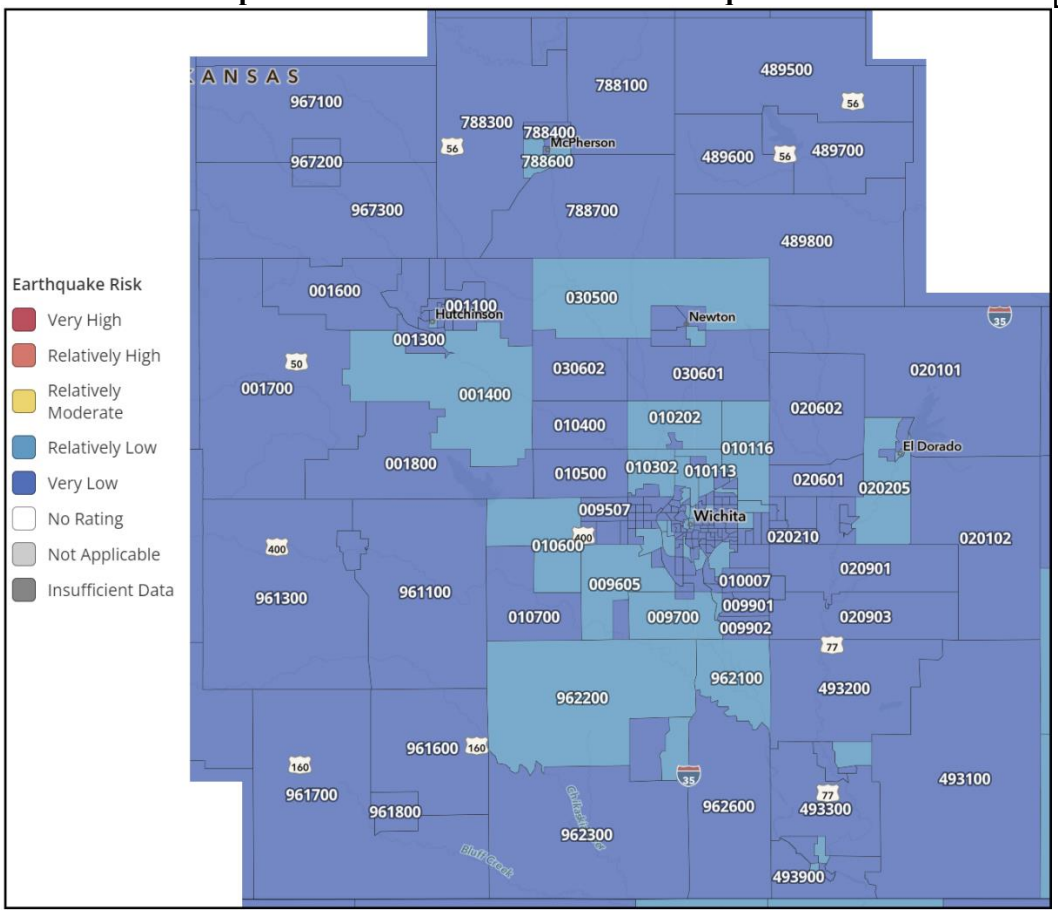
Subject	Potential Impacts
Impact on the Public	Earthquakes may cause injury or death to people from vehicle accidents, falling objects, or structural failure. There may be a large number of people seeking treatment for traumatic injuries. Ground shaking may result in broken service lines or pipelines, triggering the release of hazardous materials or waste materials.
Impact on Responders	The extent of the damage to infrastructure such as roads and bridges and communications can greatly impact first responders' ability to access or transport victims. Equipment, facilities, or other assets may be damaged and restrict first responders' capacity to respond to calls for assistance.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. Earthquakes could potentially impact critical infrastructure resulting in power outages, access to roadways or public transportation, damage to facilities or infrastructure, including alternate locations.
Delivery of Services	Delivery of services may be impacted by dangerous transportation conditions, causing food, water, and resource systems to be delayed or halted. Waterway infrastructure may be damaged or malfunction, stopping barge and ship traffic.
Property, Facilities, and Infrastructure	Unreinforced masonry structures are inherently vulnerable to seismic forces. All critical facilities and transportation corridors and pipelines can be impacted. Ground shaking can lead to the collapse of buildings and bridges, and disrupt gas, lifelines, electric, and phone service.
Impact on Environment	Earthquakes have the potential to trigger secondary hazards such as fire, flash flooding, hazardous materials release, slope failure, dam failures, and tsunamis, all potentially devastating to the environment. These secondary hazards can completely wipe out habitats and environments, cause significant injury to animals or livestock, or contaminate certain components of the environment.
Economic Conditions	Earthquakes pose a fiscal impact on the local and county governments, even if some of those costs can be recouped through federal grant reimbursements. Local, county, and state resources may be drained by response and recovery efforts. Additionally, a severe earthquake would affect the ability of businesses to maintain operations. If the private sector is not able to re-establish operations this would also impact the state economy.
Public Confidence in Governance	Governmental response, on all levels, requires direct actions that must be immediate and effective to maintain public confidence. If the state takes a long time to begin recovery operations, or for the public to see recover operations, this will have a negative impact on the public's confidence in the state's governance.

4.11.7 Jurisdictional Risk and Vulnerability

To help understand the risk and vulnerability to earthquakes of participating jurisdictions mapping from the FEMA NRI was run on a census tract level. As the NRI does not generate mapping for individual jurisdictions, census tract analysis is the closest analogue available to understand individual jurisdiction conditions.

Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating jurisdictions (as indicated by census tract) from earthquakes:

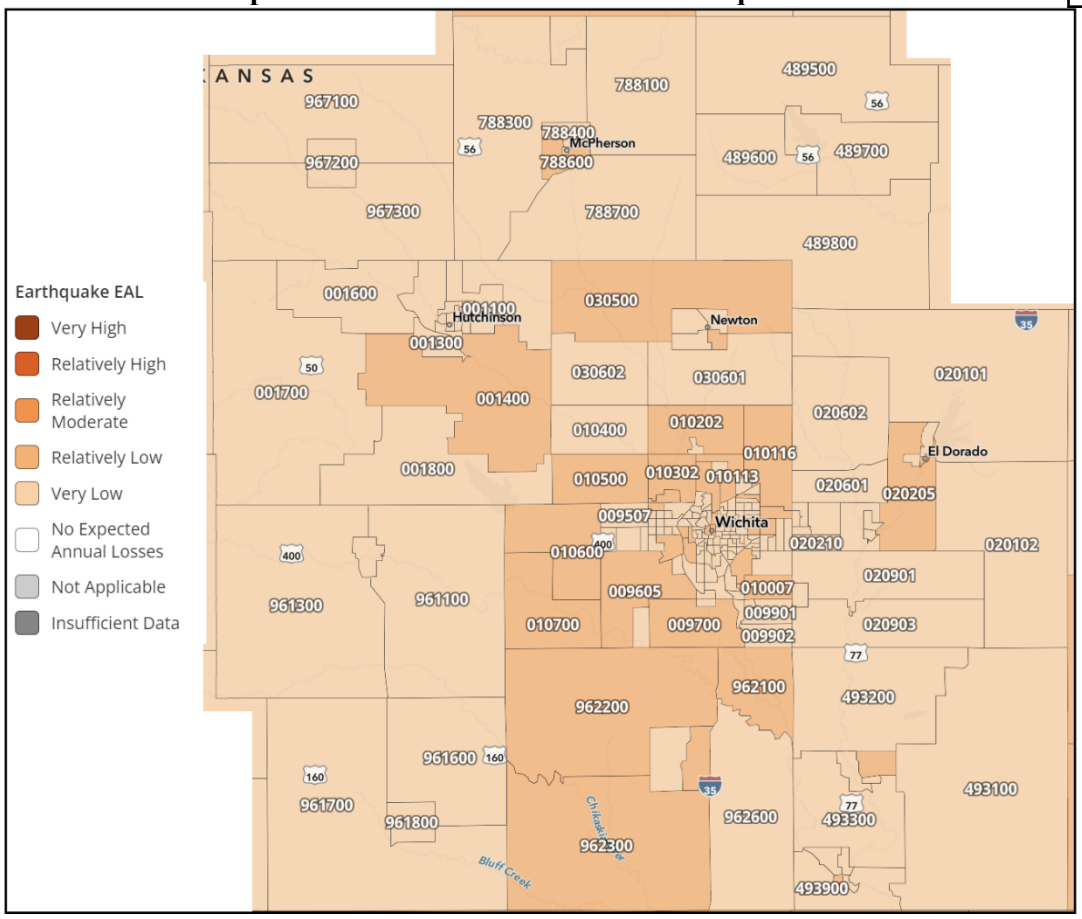
Map 50: FEMA NRI Jurisdictional Earthquake Risk



Source: FEMA NRI

As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for earthquakes for participating jurisdictions (as indicated by census tract) within Kansas Region G:

Map 51: FEMA NRI Jurisdictional Earthquake EAL

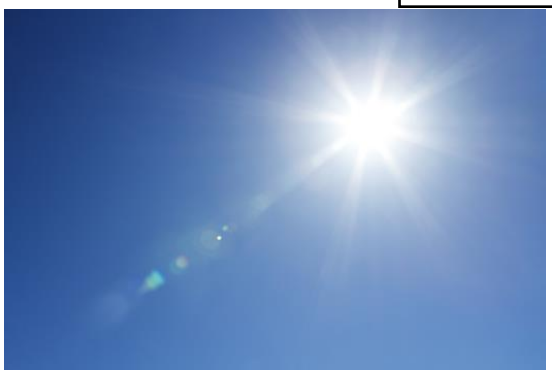


Source: FEMA NRI

All jurisdictional facilities and assets are vulnerable to earthquakes. However, the risk to these facilities and assets from earthquakes can vary significantly depending on the location and the level of seismic activity.

FEMA NRI data tables, by census tract, are included in Appendix C. These data tables contain the risk index and EAL along with total building valuation and agricultural valuation allowing for an understanding of potential structural and agricultural vulnerability on a jurisdictional basis.

4.12 Extreme Temperatures



4.12.1 Hazard Description

Extreme temperature events occur when climate conditions produce temperatures well outside of the predicted norm. These extremes can have severe impacts on human health and mortality, natural ecosystems, agriculture, and other economic sectors.

The Centers for Disease Control and Prevention (CDC) identifies the following six groups as being especially vulnerable to extreme temperatures:

- Older Adults (aged 65)
- Infants and Children
- Individuals with Chronic Conditions
- Low-income Individuals
- Athletes
- Outdoor workers

4.12.2 Location & Extent

The Midwest climate region is known for extremes in temperature. Specifically, Kansas lacks any mountain ranges that could act as a barrier to cold air masses from the north or hot, humid air masses from the south or any oceans or large bodies of water that could provide a moderating effect on the climate. The polar jet stream is often located over the region during the winter, bringing frequent storms and precipitation. Kansas summers are generally warm and humid due to the clockwise air rotation caused by Atlantic high-pressure systems bringing warm humid air up from the Gulf of Mexico.

All of Kansas Region G is vulnerable to both extreme heat and extreme cold, defined as follows.

- **Extreme Heat:** 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. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when an area of high atmospheric pressure traps moisture laden air near the ground.
- **Extreme Cold:** Although no specific definition exists for extreme cold, an extreme cold event can generally be defined as temperatures at or below freezing for an extended period of time. Extreme cold events are usually part of Winter Storm events but can occur during anytime of the year and can have devastating effects on agricultural production.

Data from the following High Plains Regional Climate Center weather stations from the first available date to present was obtained to illustrate regional temperature norms.

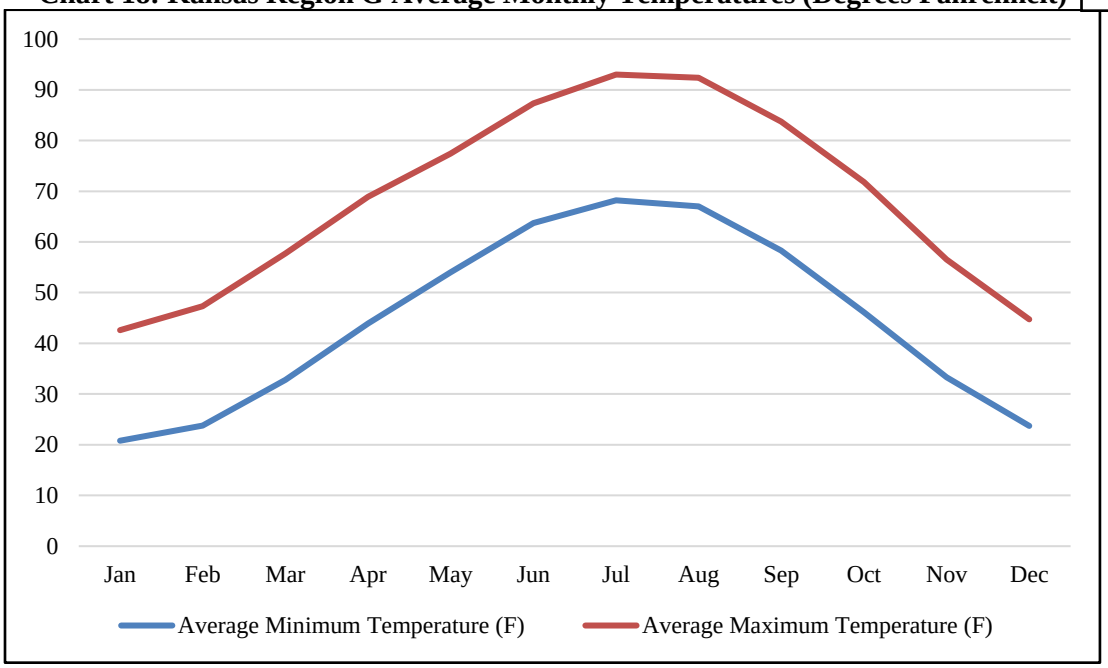
Table 77: Regional Average Temperatures

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Minimum (F)	20.8	23.8	32.8	43.9	54.0	63.7	68.2	67.0	58.3	46.1	33.3	23.7	44.6
Average Maximum (F)	42.6	47.3	57.7	68.9	77.4	87.3	93.0	92.4	83.7	71.8	56.5	44.7	68.6

Source: High Plains Regional Climate Center

The following graph illustrates the above data.

Chart 18: Kansas Region G Average Monthly Temperatures (Degrees Fahrenheit)

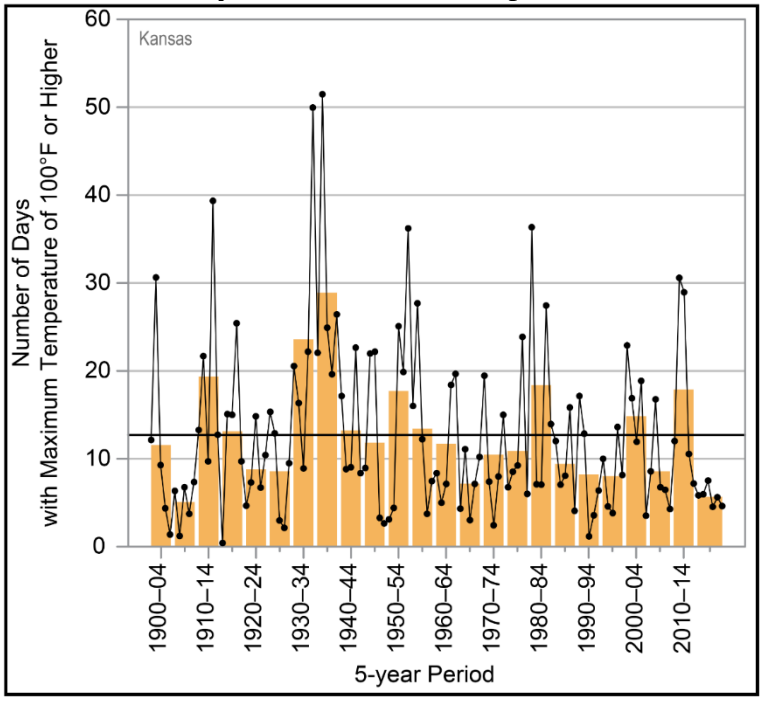


Source: NOAA

4.12.3 Previous Occurrences

The following chart details the annual number of hot days (maximum temperature of 100°F or higher) for Kansas from 1900 to 2020. Data indicates that since 2000, Kansas has experienced some of the highest springtime temperatures on record, while summer temperatures have been near to above average. The warmest summers on record were 1934 and 1936.

Chart 19: Number of Days with Maximum Temperature of 90° F or Higher



Source: NOAA NCEI State Climate Summary 2022 for Kansas

The following chart details the annual number of very cold days (minimum temperature of 0°F or lower) for Kansas from 1900 to 2020. Since 1990, Kansas has experienced a near to below average number of very cold nights, indicative of overall winter warming in the region,

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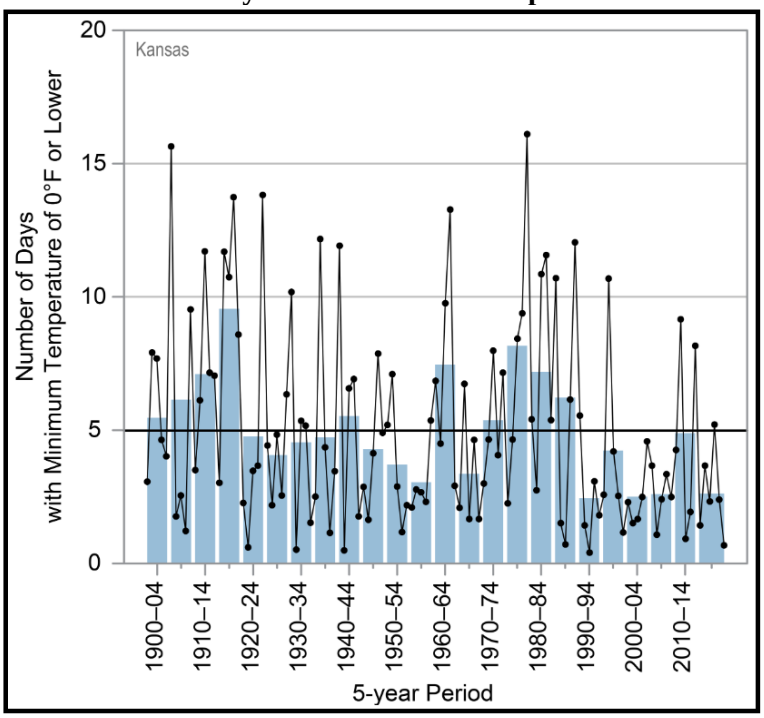
Chart 20: Number of Days with Minimum Temperature of 0° F or Less



Source: NOAA NCEI State Climate Summary 2022 for Kansas

Data from the High Plains Regional Climate Center indicates the following historic high and low temperatures.

Table 78: Kansas Region G Historic Temperatures

County	Historic Low Temperature (F)	Historic High Temperature (F)
Butler	-28	117
Cowley	-27	118
Harper	-15	115
Harvey	-28	117
Kingman	-17	116
McPherson	-22	117
Marion	-24	110
Reno	-20	113
Rice	-18	113
Sedgwick	-21	113
Sumner	-20	120

Source: High Plains Regional Climate Center

Additionally, data from the NCEI from 2009 through 2023 indicates the following recorded extreme temperature events. As these events tend to cover large areas, they are reported as regional:

Table 79: Kansas Region G NCEI Extreme Temperature Events, 2009 - 2023

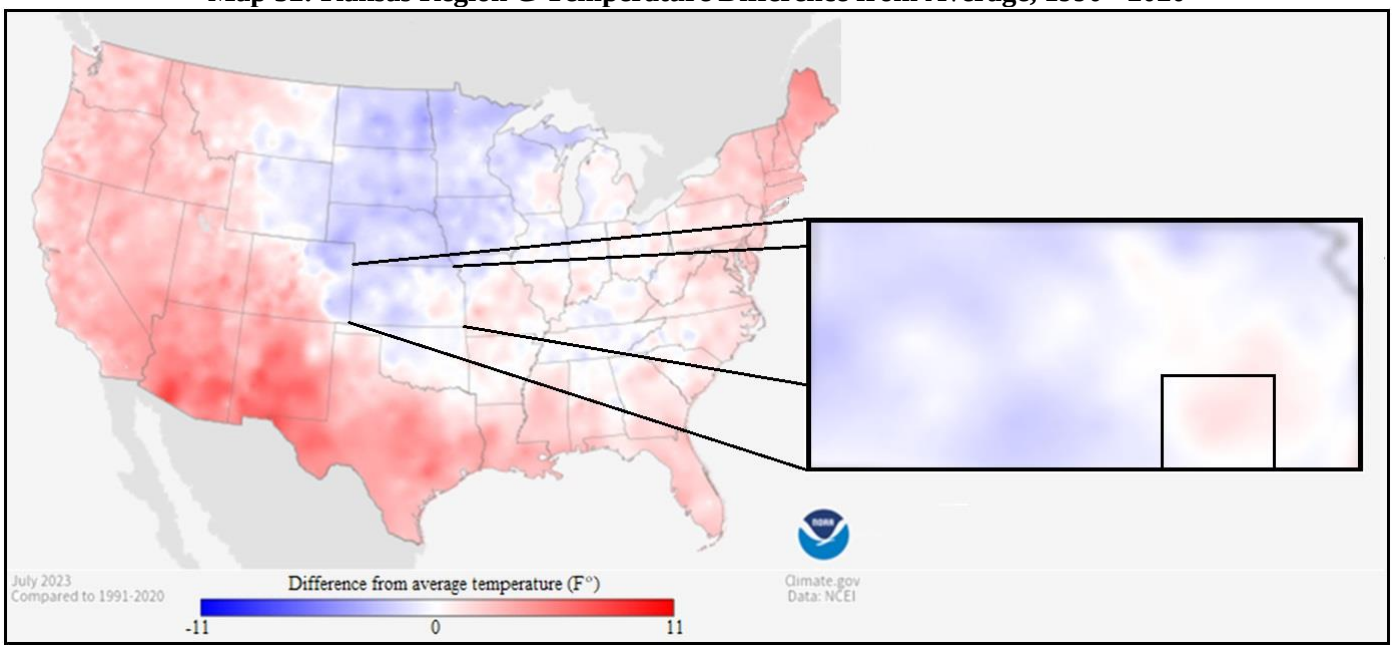
County	Event Type	Number of Events	Property Damage	Deaths	Injuries
Kansas Region G	Cold	0	$0	0	0
	Heat	11	$0	2	0

Source: NOAA NCEI

4.12.4 Probability of Future Events

Predicting the probability of extreme temperature occurrences is tremendously challenging due to the large number of factors involved. Available data suggests that both the average high temperatures and the record high temperature will likely increase over the coming years as indicated by the following map:

Map 52: Kansas Region G Temperature Difference from Average, 1990 - 2020



Source: NOAA

Temperatures in Kansas Region G have risen by 1.5° F since the early 1900s, with the number of hot days above the long-term average since the 1990s. There is no long-term trend in very warm nights or extremely hot days, although both were slightly above average during the 2010–2014 period. number of very cold nights has been mostly below average since 1990.

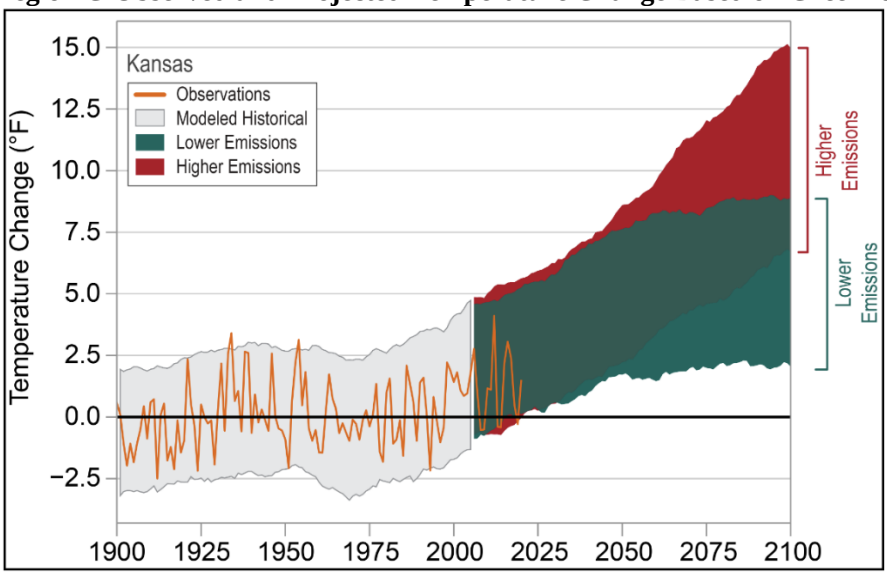
4.12.5 Projected Changes in Location, Intensity, Frequency, and Duration

When discussing extreme temperatures, climate change should be considered as it may markedly change future events. Recent climate modeling results indicate that extreme temperature events may become more common for Kansas Region G, especially heat. Recent multiyear periods have been among some of the warmest on record for Kansas, comparable to the extreme heat of the 1930s, when intense drought exacerbated hot summer conditions. Recent spring temperatures have been above average, which may have implications for crop planting. Summer temperatures have been near or above average since 2000, but there is no long-term trend in very warm nights or extremely hot days, although both are trending slightly above average. The number of very cold nights has been mostly below average since 1990, and the freeze-free season has also lengthened, averaging about nine days longer in this century than the 20th century average.

Rising average temperatures produce a more variable climate system which may result in an increase in the frequency and severity of some extreme weather events including longer and hotter heat waves. Additionally, rising temperatures can harm air quality and amplify existing threats to human health. Warmer weather can increase the production of ground-level ozone, a pollutant that causes lung and heart problems. Heat stress is expected to increase as climate change brings hotter summer temperatures and more humidity. Certain people are especially vulnerable, including children, the elderly, the sick, and those living below the poverty line.

The following chart indicates the projected temperature change for Kansas Region G utilizing two global climate models. One model utilizes information in which greenhouse gas emissions continue to increase (higher emissions), with the other model utilizing information in which greenhouse gas emissions increase at a slower rate (lower emissions). Temperatures in, detailed by the orange line, have risen 1.5° F since the beginning of the early 1900s. Based on both the higher emission and lower emission models, continued warming is projected throughout this century.

Chart 21: Kansas Region G Observed and Projected Temperature Change Based on Greenhouse Ga



Source: NOAA NCEI State Climate Summary 2022 for Kansas

4.12.6 Vulnerability and Impact

While difficult to quantify, the impacts of future extreme temperature may have far reaching impacts. The incidence of wildfires increases substantially during extended periods of extreme heat, which in turn places both human and wildlife populations at higher levels of risk. Although environmental impacts are difficult to quantify, losses to plant and animal species, wildlife habitat, and air and water quality, wildfires, degradation of landscape quality, loss of biodiversity, and soil erosion may result from extended periods of extreme temperatures.

A primary concern with this hazard are human health safety issues, as extreme temperatures can be a direct cause of death. Specific at-risk groups include outdoor workers, farmers, young children, and senior citizens. Compounding these concerns is the potential loss of electric power due to increased strain on power generation and distribution due to increased air conditioning or heating needs.

Extreme temperature impacts on humans can be measured for both heat and cold. The following table discusses potential impacts on human health related to excessive heat.

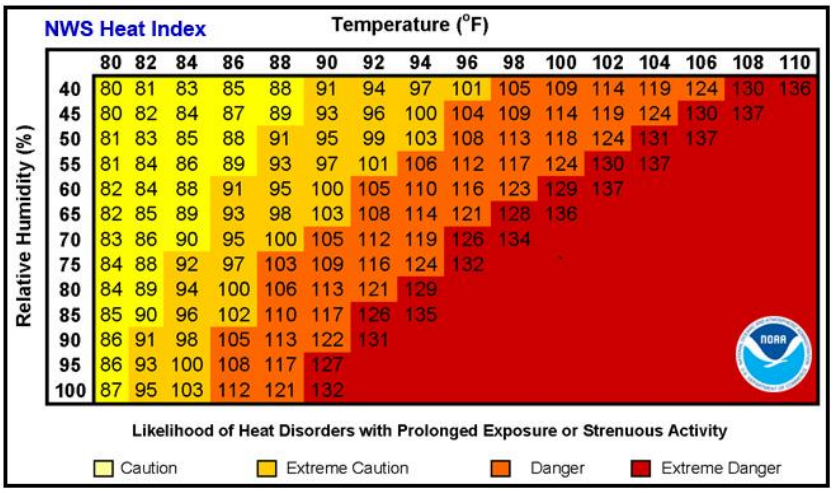
Table 80: Extreme Heat Impacts on Human Health

Heat Index Temperature	Potential Impact on Human Health
80-90° F	Fatigue possible with prolonged exposure and/or physical activity
90-105° F	Sunstroke, heat cramps, and heat exhaustion possible
105-130° F	Heatstroke/sunstroke highly likely with continued exposure

Source: National Weather Service Heat Index Program

Exposure to direct sun can increase Heat Index values by as much as 15°F. The zone above 105°F corresponds to a Heat Index that may cause increasingly severe heat disorders with continued exposure and/or physical activity. The following graph, from the NWS, indicates Heat Index values.

Chart 22: Heat Index



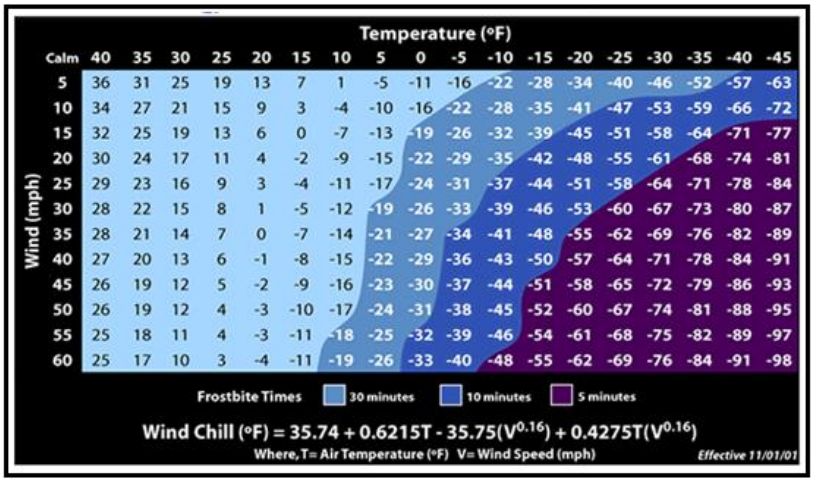
Source: NWS

Extreme cold temperatures can result in a variety of concerns, including:

- Frostbite: The freezing of skin and the body tissue just beneath it
- Hypothermia: Dangerously low body temperature (and the most common winter weather killer)

When extremely cold temperatures are accompanied by strong winds the result can be potentially lethal wind chills. Wind chill is the temperature your body feels when the air temperature is combined with the wind speed, and is based on the rate of heat loss from exposed skin caused by the effects of wind and cold. As the speed of the wind increases, it can carry heat away from your body much more quickly, causing skin temperature to drop. The wind chill chart shows the difference between the actual air temperature and the perceived temperature due to wind, and amount of time until frostbite occurs.

Chart 23: Wind Chill Chart

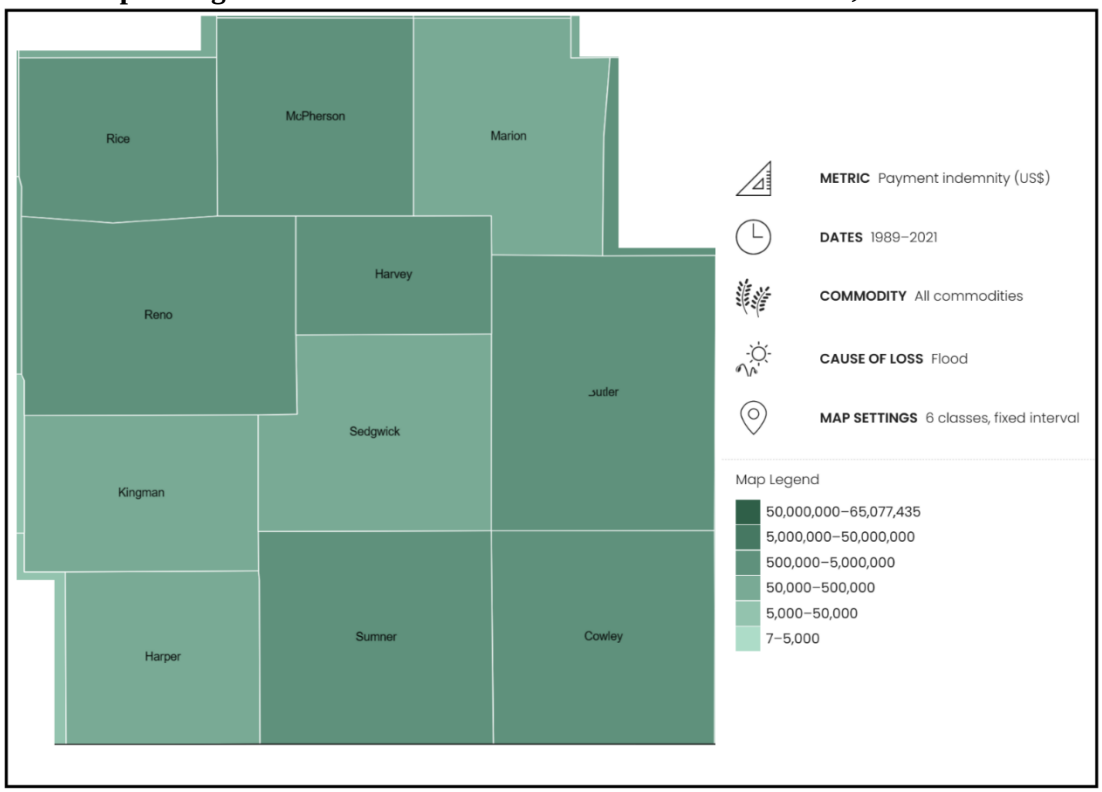


Source: NOAA

Extreme heat can cause significant damage to the local environment by dehydrating vegetation and wildlife, which may result in cascading effects to the surrounding environment, such as drought, wildfires, mudslides, or landslides. Extreme temperatures may severely decrease the yield of the agricultural sector. The yield of cash crops may be reduced, livestock may be adversely impacted by extreme heat, or grazing losses may be incurred by farmers or ranchers; potentially resulting in decreased food security. In the event of significant agricultural losses caused by extreme heat or drought, some assistance may be available to impacted farms or ranches.

Extreme heat conditions can cause significant agricultural impacts. The following map from the Department of Agriculture details total agricultural losses, by county, due to extreme conditions from 1989 to 2021:

Map 53: Agricultural Losses Due to Extreme Heat Conditions, 1989 to 2021



Source: USDA

Extreme temperatures can pose various risks to local and county operations, and may include:

- Health and Safety Risks: High temperatures, especially during heatwaves, can pose significant health risks to government employees. Heat-related illnesses such as heat exhaustion and heatstroke can occur, potentially leading to hospitalizations or fatalities. Cold temperatures can also lead to cold-related illnesses and injuries, such as frostbite and hypothermia.
- Emergency Response: Government agencies may need to respond to extreme weather events, such as providing emergency shelter during heatwaves or responding to weather-related accidents and emergencies. These responses can strain resources and personnel.
- Budgetary Impact: The costs associated with responding to and mitigating the effects of extreme temperatures can strain state budgets. This includes expenses related to emergency response, infrastructure repairs, and healthcare.

Potentially Vulnerable Community Lifelines

Extreme temperatures, whether excessively hot or cold, can impact various community lifelines, critical systems and services that communities rely on for their functioning. Vulnerabilities arise due to the stress that extreme temperatures place on infrastructure, resources, and operational processes. As an overview, the May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report indicates the following loss values for community lifelines:

Table 81: Economic Impacts of Loss of Service Per Capita Per Day (in 2022 dollars)

Category	Loss
Loss of Electrical Service	$199
Loss of Wastewater Services	$66

Table 81: Economic Impacts of Loss of Service Per Capita Per Day (in 2022 dollars)

Category	Loss
Loss of Water Services	$138
Loss of Communications/Information Technology Services	$141

Source: May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report

Extreme temperatures, whether excessively hot or cold, can impact various community lifelines, critical systems and services that communities rely on for their functioning. Vulnerabilities arise due to the stress that extreme temperatures place on infrastructure, resources, and operational processes.

Extreme heat and extreme cold can have significant impacts on roads, leading to various issues and challenges. Extreme temperatures can cause the following impacts:

- Softening of Asphalt: High temperatures can cause asphalt to soften and become more susceptible to deformation. This leads to the development of ruts and potholes as the road surface loses its stability.
- Rutting and Raveling: The combination of high temperatures and heavy traffic loads can result in rutting, where depressions or grooves form in the road surface. Raveling, the disintegration of the asphalt surface, may also occur.
- Expansion and Contraction: Materials like concrete and asphalt expand in high temperatures and contract in cooler temperatures. This expansion and contraction can lead to cracking and deterioration of the road surface over time.
- Freeze-Thaw Cycles: Fluctuations between freezing and thawing can lead to the formation of ice within the road structure. The expansion of water as it freezes can result in cracks and damage to the road surface.
- Frost Heaving: During freeze-thaw cycles, moisture in the soil beneath the road can freeze, causing the ground to heave upward. This can result in uneven surfaces and damage to the road structure.

The following table, from the Kansas Department of Transportation, indicates the total road miles by county for Kansas Region G:

Table 82: Kansas Region G Road Mileage by County

County	Total Road Miles
Butler	2,564
Cowley	1,874
Harper	1,422
Harvey	1,297
Kingman	1,487
McPherson	1,893
Marion	1,881
Reno	2,802
Rice	1,429
Sedgwick	4,442
Sumner	2,423

Source: Kansas Department of Transportation

The cost to conduct maintenance on a road can vary significantly depending on the types of work required. However, the average estimate for repairs on a per mile basis in 2019 was $14,750 per mile. The cost to replace a road can vary significantly based on several factors, including the type of road, local labor and material costs, the complexity of the project, and the specific requirements of the replacement. As a rough estimate, road construction costs can range from $1,000,000 to $10,000,000 per mile.

Extreme heat and extreme cold can impact electrical utilities in various ways, potentially leading to disruptions in service. These impacts include:

- Power Outages: High temperatures can strain electrical systems, leading to increased demand systems like air conditioners. This heightened demand can overload power grids, resulting in power outages.
- Transformer Overheating: Transformers, which are crucial components in power distribution, can overheat in extreme temperatures. This can lead to malfunctions, reduced efficiency, or even failures, causing power disruptions.
- Equipment Failure: Electrical equipment, such as cables and switches, may experience higher resistance and increased stress during extreme heat, increasing the likelihood of equipment failures.
- Reduced Efficiency in Power Plants: Power generation facilities may experience reduced efficiency during heatwaves due to elevated ambient temperatures. This can affect the output of power plants and potentially lead to supply shortages.
- Icing on Power Lines: Ice accumulation on power lines can lead to increased weight, potentially causing lines to sag or break. This can result in power outages and safety hazards.
- Communication Disruptions: Both extreme heat and cold can impact communication infrastructure. For example, extreme cold can affect the performance of fiber optic cables, while extreme heat can lead to equipment failures in communication systems.

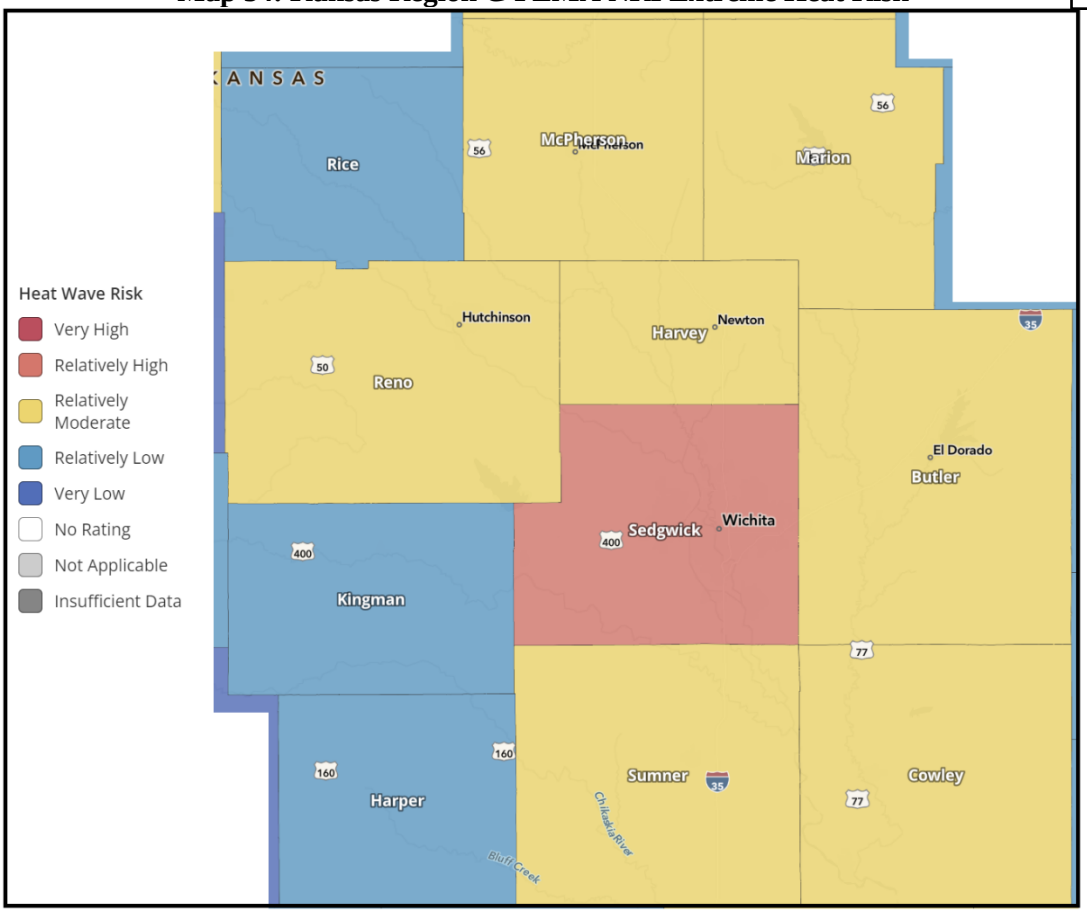
In order to reduce plan duplication, mapping concerning electrical generation plants, high capacity transmission lines, and electrical utility providers as well as utility repair and replacement cost estimation provides may be found in Section 4.9.6, maps 33 and 34.

Hospitals and other smaller medical facilities may see an increase in heat or cold related illness during an extreme temperature event, but it is considered unlikely that this increase will impact or overload capacity. Hospital capacity mapping may be found in Section 4.9.6, Map 35. However, extreme temperatures can increase the demand for emergency shelters, particularly in cases of widespread power outages. Setting up and managing these shelters can strain resources.

FEMA NRI

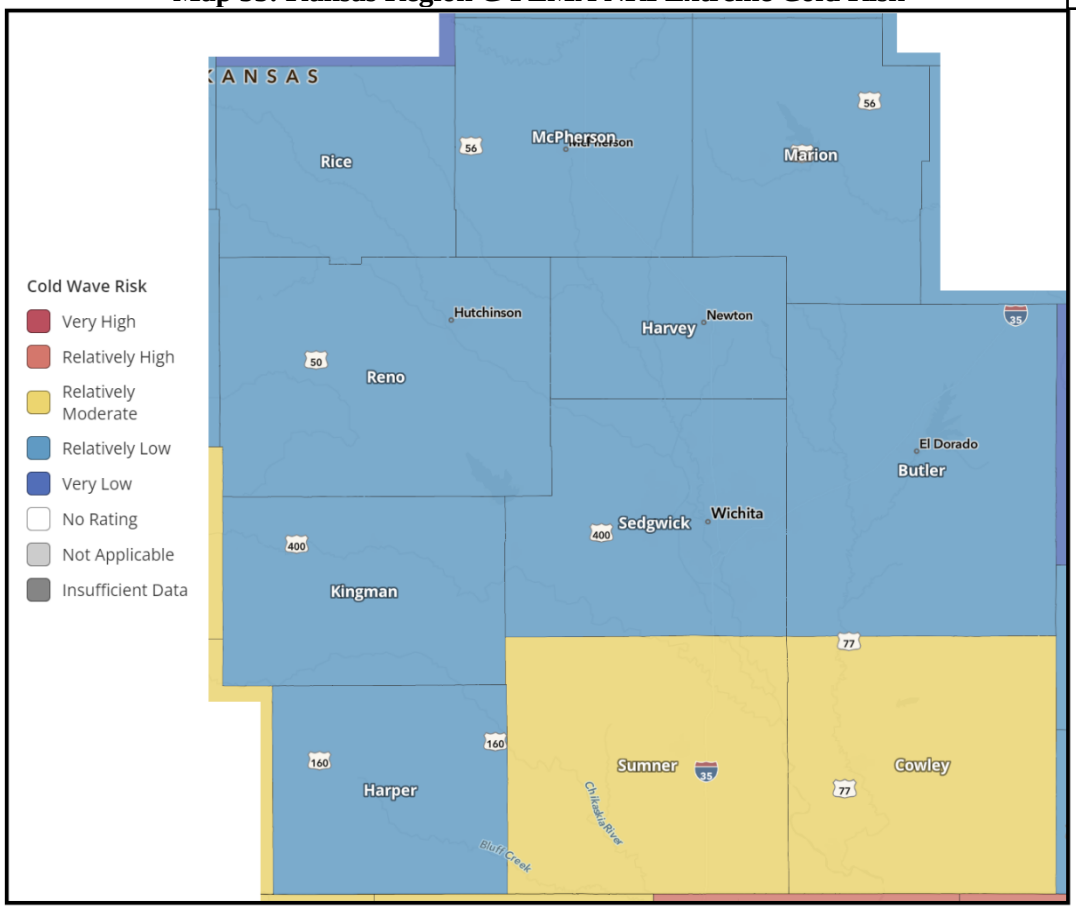
Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating counties from extreme heat and extreme cold:

Map 54: Kansas Region G FEMA NRI Extreme Heat Risk



Source: FEMA NRI

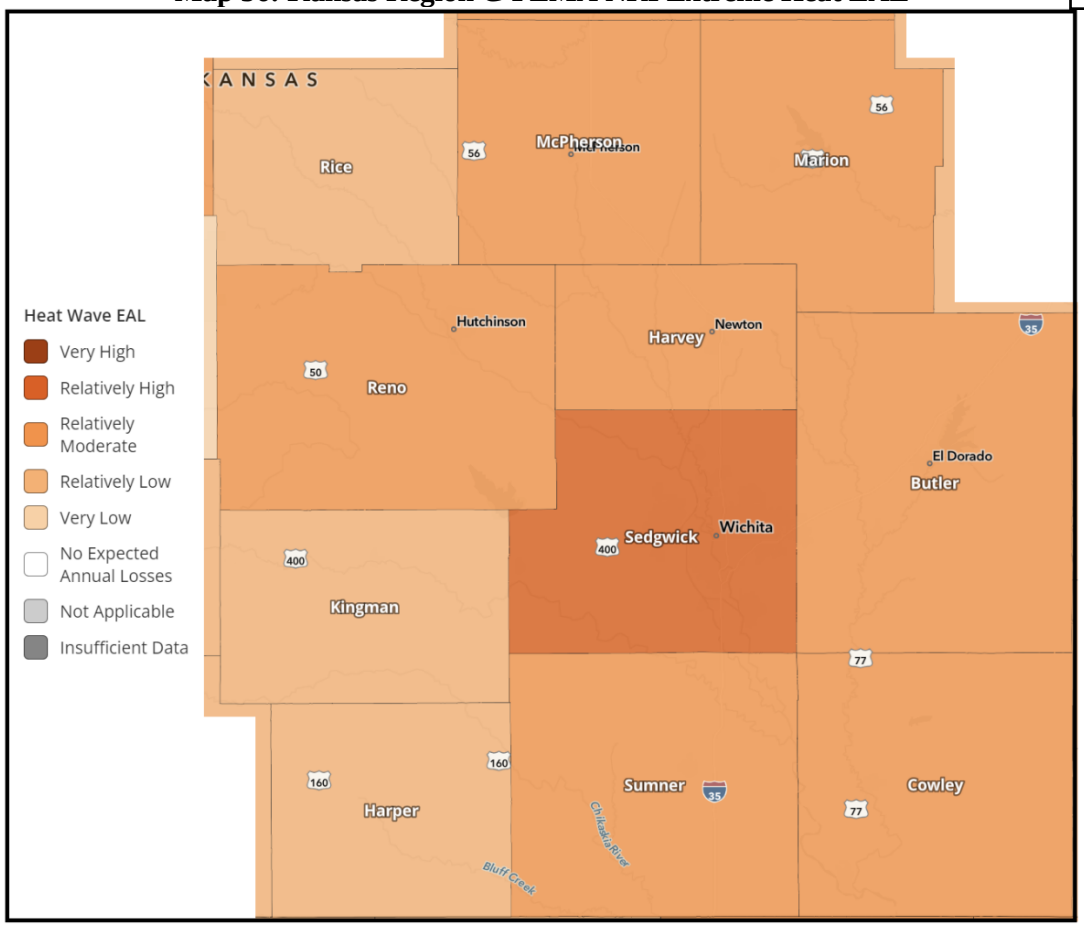
Map 55: Kansas Region G FEMA NRI Extreme Cold Risk



Source: FEMA NRI

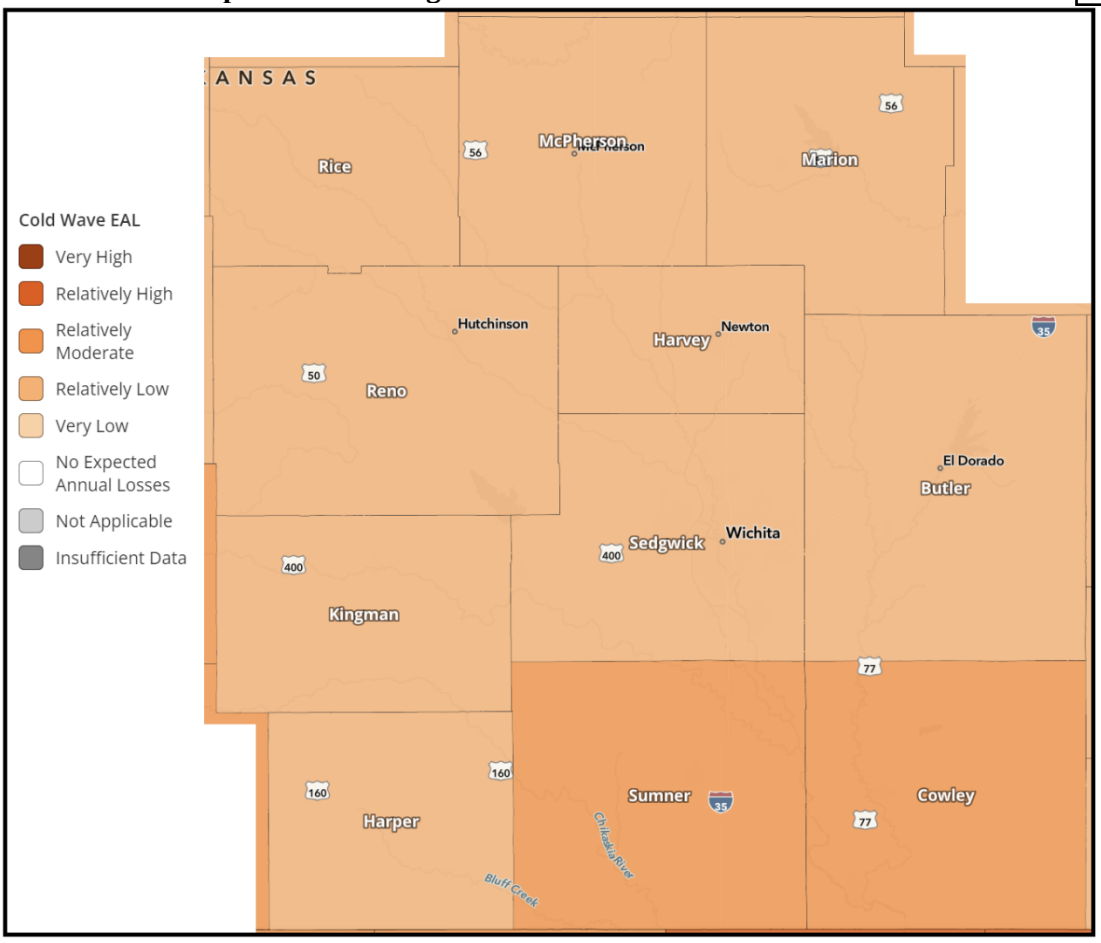
As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for extreme heat and extreme cold for participating counties within Kansas Region G:

Map 56: Kansas Region G FEMA NRI Extreme Heat EAL



Source: FEMA NRI

Map 57: Kansas Region G FEMA NRI Extreme Cold EAL



Source: FEMA NRI

The following tables indicates the FEMA NRI and EAL analysis for each participating Kansas Region G county for extreme heat and extreme cold:

Table 83: Kansas Region G FEMA NRI and EAL for Extreme Heat by County

County	Risk Index	EAL
Butler	Relatively Moderate	Relatively Moderate
Cowley	Relatively Moderate	Relatively Moderate
Harper	Relatively Low	Relatively Low
Harvey	Relatively Moderate	Relatively Moderate
Kingman	Relatively Low	Relatively Low
Marion	Relatively Moderate	Relatively Moderate
McPherson	Relatively Moderate	Relatively Moderate
Reno	Relatively Moderate	Relatively Moderate
Rice	Relatively Low	Relatively Low
Sedgwick	Relatively High	Relatively High
Sumner	Relatively Moderate	Relatively Moderate

Source: FEMA NRI

Table 84: Kansas Region G FEMA NRI and EAL for Extreme Cold by County

County	Risk Index	EAL
Butler	Relatively Low	Relatively Low
Cowley	Relatively Moderate	Relatively Moderate
Harper	Relatively Low	Relatively Low
Harvey	Relatively Low	Relatively Low
Kingman	Relatively Low	Relatively Low
Marion	Relatively Low	Relatively Low
McPherson	Relatively Low	Relatively Low
Reno	Relatively Low	Relatively Low
Rice	Relatively Low	Relatively Low
Sedgwick	Relatively Low	Relatively Low
Sumner	Relatively Moderate	Relatively Moderate

Source: FEMA NRI

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 85: Extreme Temperature Consequence Analysis

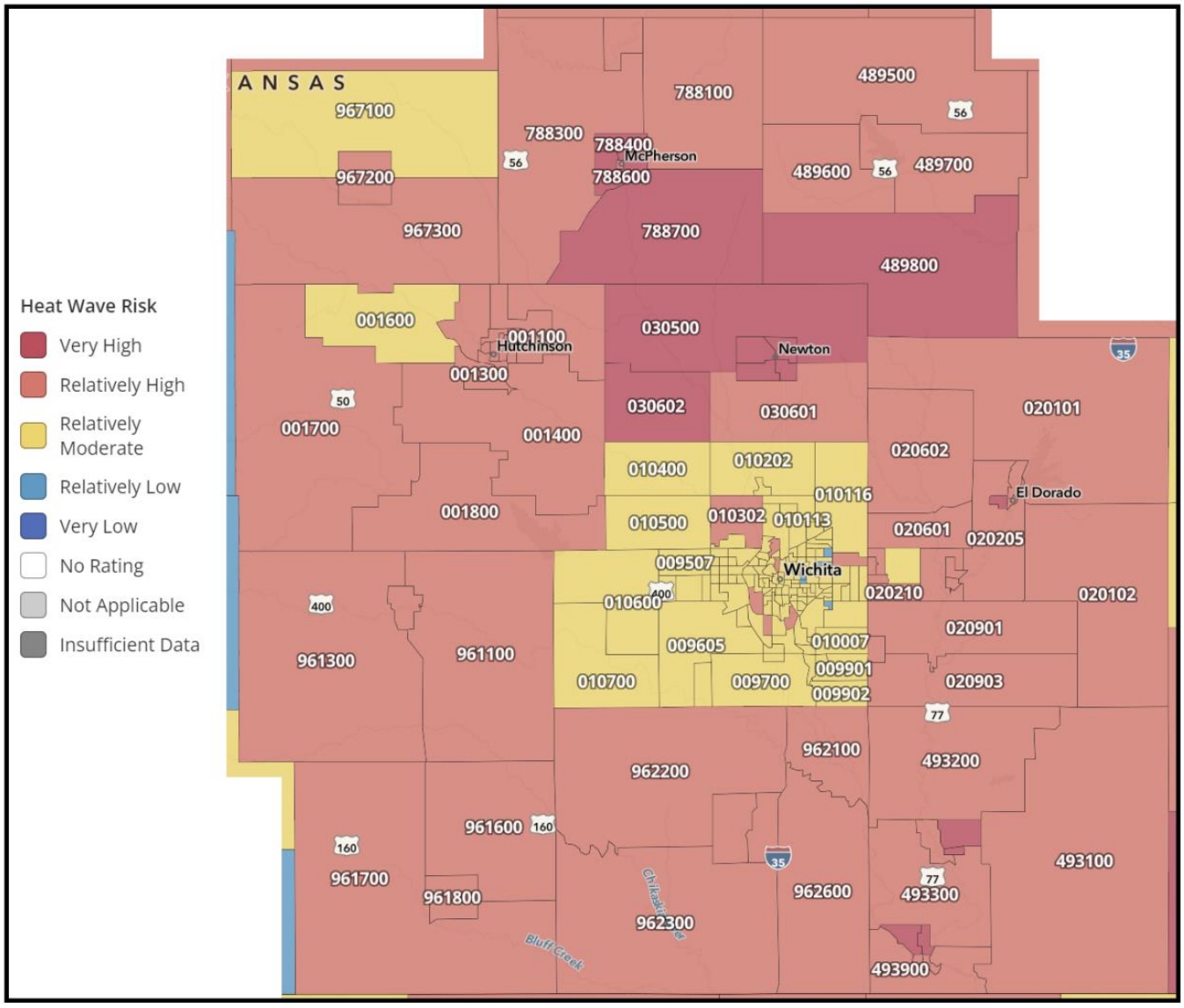
Subject	Potential Impacts
Impact on the Public	Extreme temperatures can have severe consequences for health, particularly for the elderly and young. Loss of electricity may impact heating or air conditioning leading to poorly tolerated indoor temperatures. Physical effects of extreme temperatures can cause major health problems and may lead to injury or death.
Impact on Responders	Without proper mitigation efforts, responders may be susceptible to temperature related illness. Extreme temperatures may also damage instruments or equipment necessary for response activities. First responders may face dangerous road conditions leading to accidents and prolonged response times.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. This hazard may impact an agency's ability to implement continuity operations due to power outages. If the activation of alternate facilities was required, continuity of operations may be difficult due to lack of computer/network access during power outages.
Delivery of Services	Extreme temperatures can impact efficient delivery or inability of goods or services due to potential health impacts on workers. Equipment and vehicles may be damaged, and the delivery of services may be delayed due to poor travel conditions
Property, Facilities, and Infrastructure	Facility integrity is at risk with regards to power cables and stations being overused and limiting operations. This could lead to limits on facility heating or cooling.
Impact on Environment	Extreme temperatures can cause significant damage to the local environment and result in habitat loss, invasive species, and changes in migration. Extreme temperatures may severely decrease the yield of cash crops. Livestock are adversely affected by extreme temperatures and may suffer medical problems or death.
Economic Conditions	Extreme temperatures may drain local resources. Under some conditions, some of the costs can be recouped through federal grant reimbursements .
Public Confidence in Governance	Governmental response, on all levels, requires direct actions that must be immediate and effective to maintain public confidence.

4.12.7 Jurisdictional Risk and Vulnerability

To help understand the risk and vulnerability to extreme temperatures of participating jurisdictions mapping from the FEMA NRI was run on a census tract level. As the NRI does not generate mapping for individual jurisdictions, census tract analysis is the closest analogue available to understand individual jurisdiction conditions.

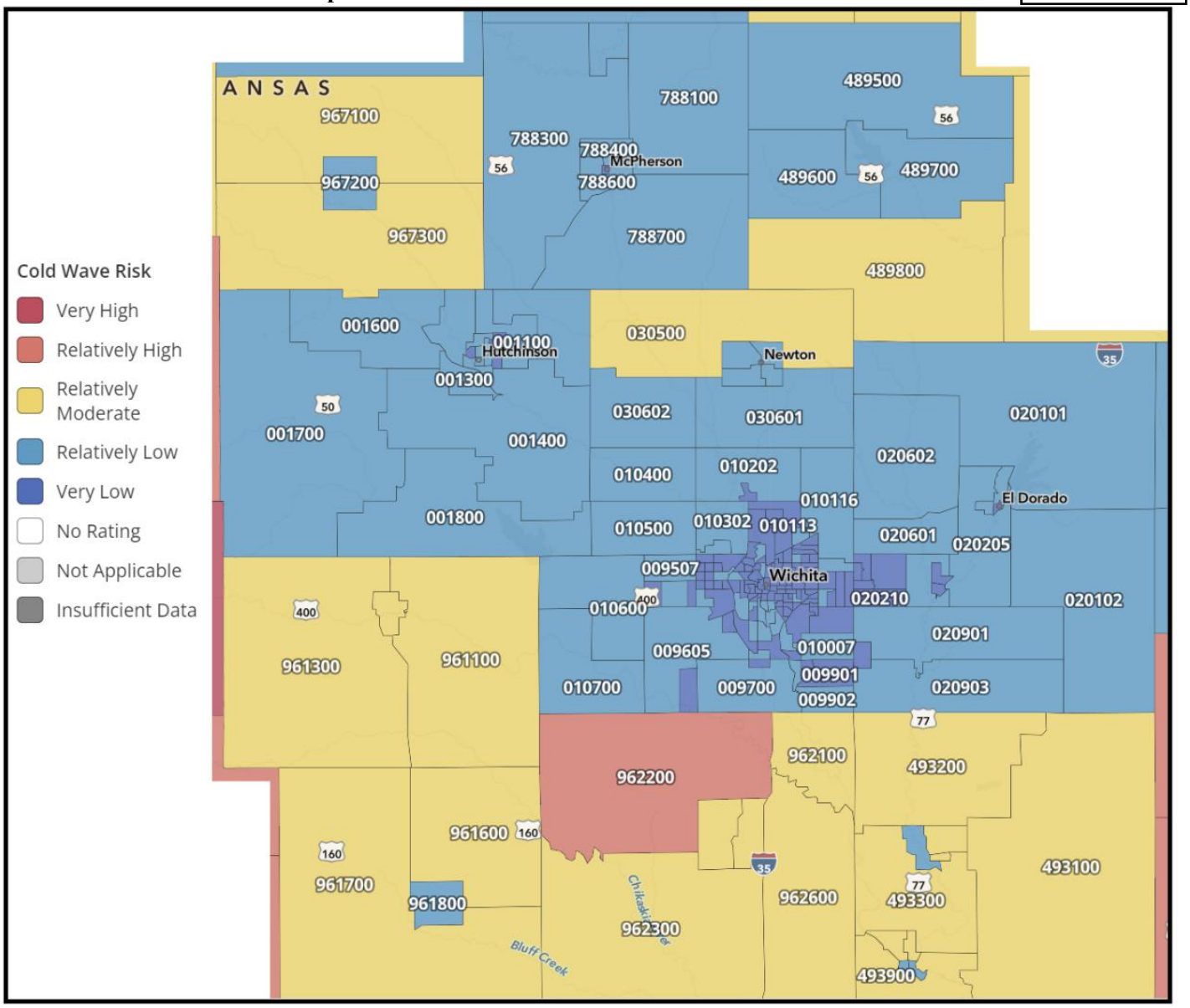
Using the FEMA NRI, and consisting of three input components (expected annual loss, social vuln community resilience), the following map was created indicating the potential risk to participating jurisdictions (as indicated by census tract) from extreme heat and extreme cold events:

Map 58: FEMA NRI Jurisdictional Extreme Heat Risk



Source: FEMA NRI

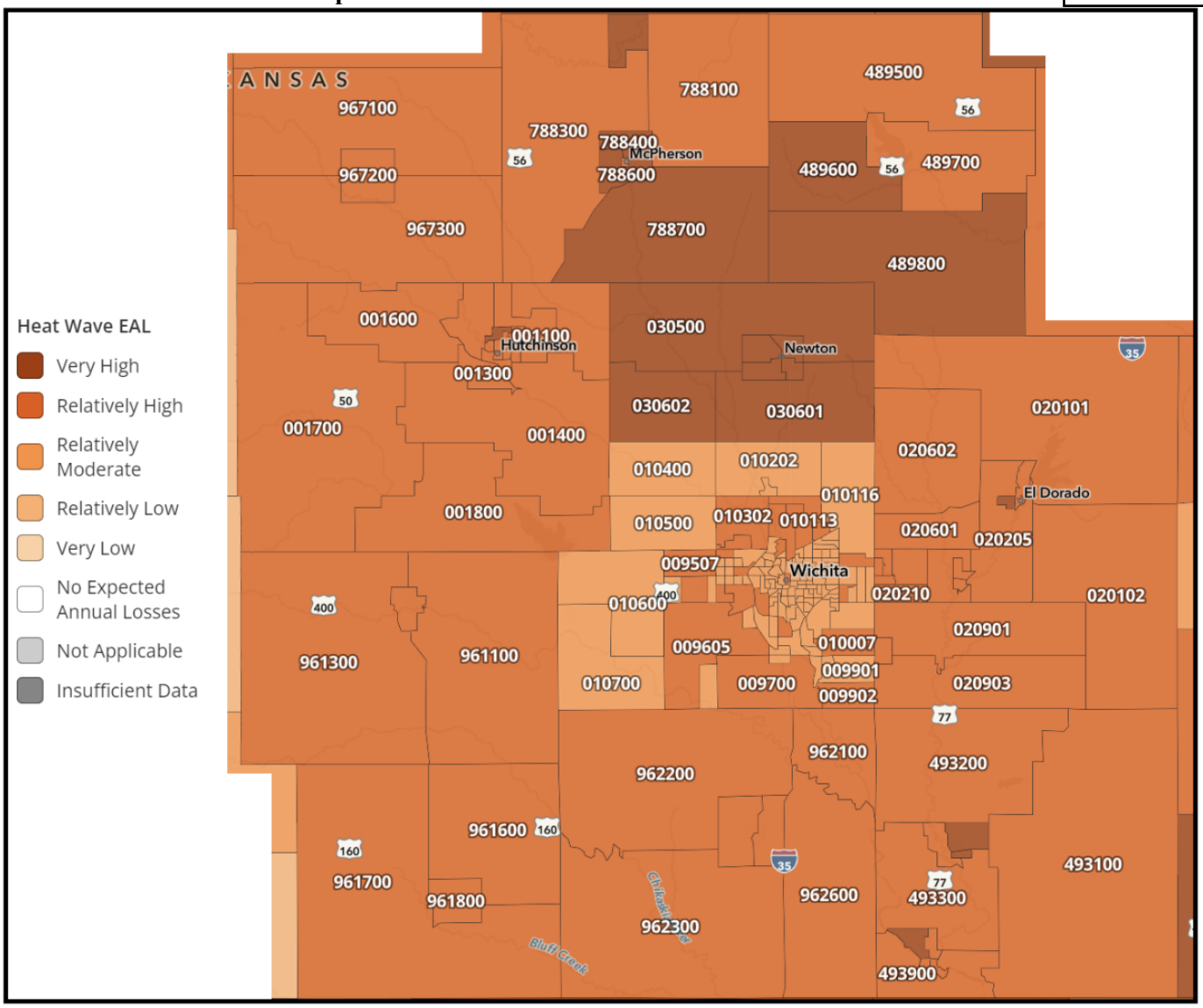
Map 59: FEMA NRI Jurisdictional Extreme Cold Risk



Source: FEMA NRI

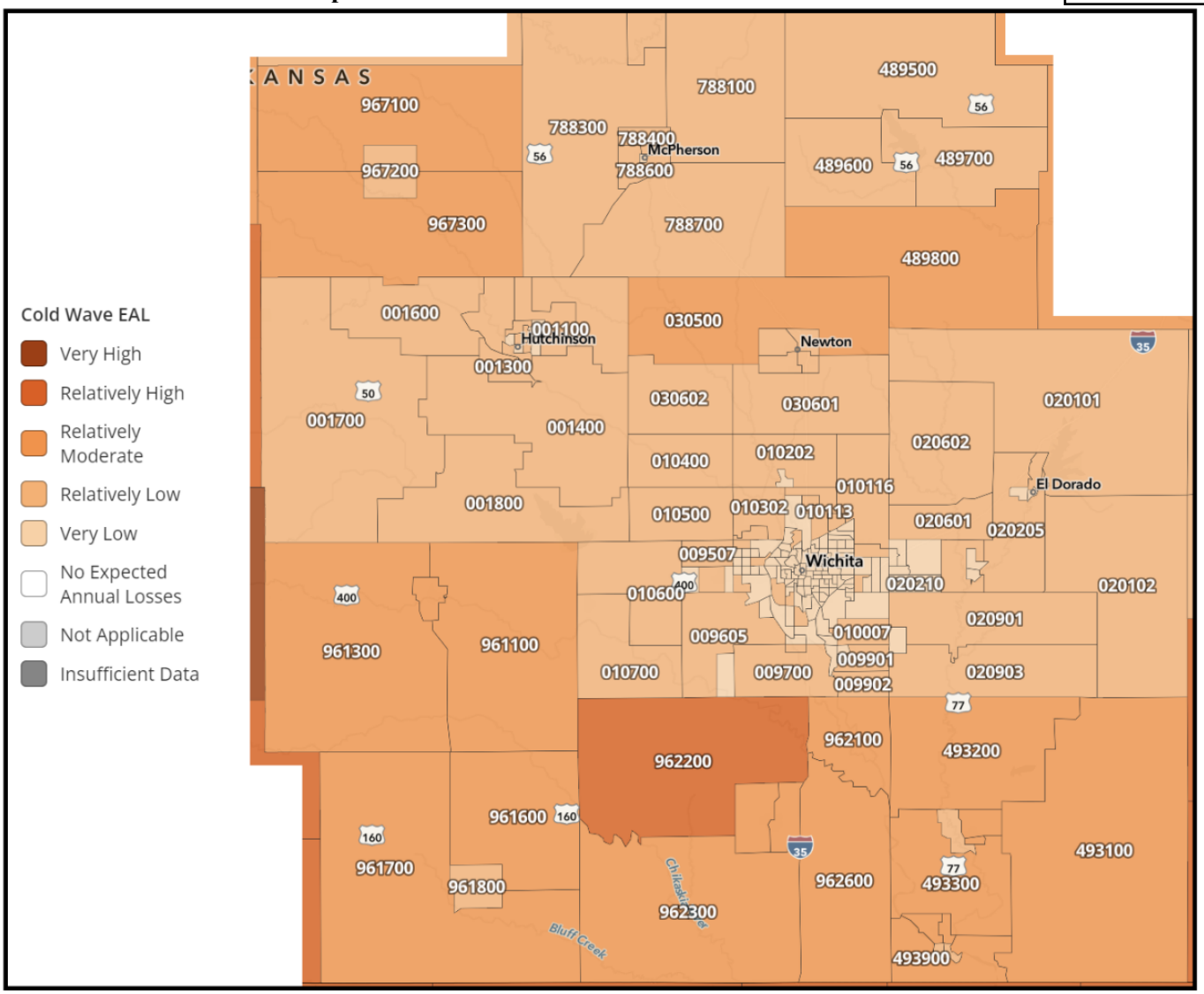
As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for extreme heat and extreme cold for participating jurisdictions (as indicated by census tract) within Kansas Region G:

Map 60: FEMA NRI Jurisdictional Extreme Heat EAL



Source: FEMA NRI

Map 61: FEMA NRI Jurisdictional Extreme Cold EAL



Source: FEMA NRI

FEMA NRI data tables, by census tract, are included in Appendix C. These data tables contain the risk index and EAL along with total building valuation and agricultural valuation allowing for an understanding of potential structural and agricultural vulnerability on a jurisdictional basis.

Extreme temperatures can pose various risks to local and county facilities and assets, and may include:

- Power Grid Strain: Extreme temperatures, whether hot or cold, can lead to increased demand for electricity. This can strain the power grid, potentially causing power outages, which can disrupt government operations, including the functioning of critical infrastructure such as hospitals, emergency services, and data centers.
- Infrastructure Stress: Buildings and infrastructure can suffer damage due to extreme temperatures. For example, prolonged exposure to high temperatures can lead to structural damage, such as cracking and warping. Extreme cold can freeze and damage pipes, leading to water leaks and flooding when temperatures rise.
- Transportation Disruptions: Extreme heat can cause pavement to soften and buckle, leading to road closures and transportation disruptions. Extreme cold can result in icy road conditions and reduce visibility, making travel hazardous.

Socially vulnerable populations may be more vulnerable to the effects of extreme temperature events d in age or the inability to heat and cool homes during an event. Please see Section 3.4 for details on vulnerable populations.

4.13 Flood

4.13.1 Hazard Description

Flooding is the overflow or accumulation of water on normally dry land, often caused by heavy rainfall, snowmelt, or the failure of natural or artificial barriers. Flooding can lead to the inundation of homes, roads, farmland, and other areas, causing damage to property, disruption of daily life, and potential threats to human safety and the environment.

A floodplain is a flat or gently sloping area adjacent to a river, stream, or other water body. These areas act as a buffer during periods of heavy rainfall or snowmelt, absorbing excess water and preventing it from rushing downstream too quickly. In its common usage, a floodplain refers to areas inundated by the 100-year flood, the flood that has a 1% chance of being equaled or exceeded in any given year, and the 500-year flood, the flood that has a 0.2% chance of being equaled or exceeded in any given year. The 100-year flood is the national minimum standard to which communities regulate their floodplains through the NFIP.

4.13.2 Location and Extent

A variety of factors affect the severity of flooding within Kansas Region G. These include topography, weather characteristics, development, and geology. Intense flooding will create havoc in any jurisdiction affected.

Flash Flooding

Flash flooding occurs during heavy or extended periods of rain, generally when the ground is unable to rapidly absorb the water. Most flash flooding in Kanas Region G is caused by intense and stationary thunderstorms. Heavy sustained rain can create rapid flooding very quickly, and flooding can occur miles away from where the rain fell. Factors that can contribute to the severity of flash flooding include rainfall intensity, duration, drainage condition, and ground conditions (paved or unpaved). Flash floods are particularly dangerous to people and property, as six inches of moving water can knock a person down and two feet can lift a vehicle. As there is often little warning of a flash flood event, they are the cause of most flood fatalities.

Riverine Flooding

Riverine flooding refers to the overflow of water from a river or a stream onto adjacent land areas. This type of flooding occurs when the water level in a river or stream rises significantly and exceeds its banks, inundating the surrounding areas. The severity of riverine flooding can be influenced by the amount and intensity of rainfall in the watershed, the size, shape, and slope of the river or stream channel, and the presence of dams on the river system.

Urban Flooding

FEMA defines urban flooding as ‘the inundation of property in a built environment, particularly in more densely populated areas, caused by rain falling on increased amounts of impervious surfaces and overwhelming the capacity of drainage systems.” In Kansas Region G, urban flooding has consistently increased due to a number of factors, including the filling for development of natural wetlands and waterways, the reduction of permeable surfaces, and the aging and insufficient capacity of stormwater systems.

To establish floodplains, FEMA adopted the Base Flood Elevation (BFE), which is the computed elevation that floodwater is anticipated to rise during a flood that has a1% chance of occurring in any given year. The BFE establishes the regulatory requirement for the elevation or floodproofing of structures, and the relationship between the BFE and a given structure’s elevation determines the flood insurance premium through the NFIP.

FEMA, through the Risk Mapping, Assessment, and Planning (Risk MAP) program, works with partners to assess and map these flood risks producing Flood Insurance Rate Maps (FIRMs). As an additional benefit, the FIRMs serve as the basis for NFIP regulations and flood insurance purchase requirements.

SFHAs are defined as the area that will be inundated by the flood event having a 1% chance of being equaled or exceeded in any given year. The 1% annual chance flood is also referred to as the base flood or 100-year flood. The FIRM depicts the SFHA, including the 1%-annual-chance flood. These areas are labeled on the map as zone, as explained in the following table:

The following table details FEMA's FIRM flood zone classifications.

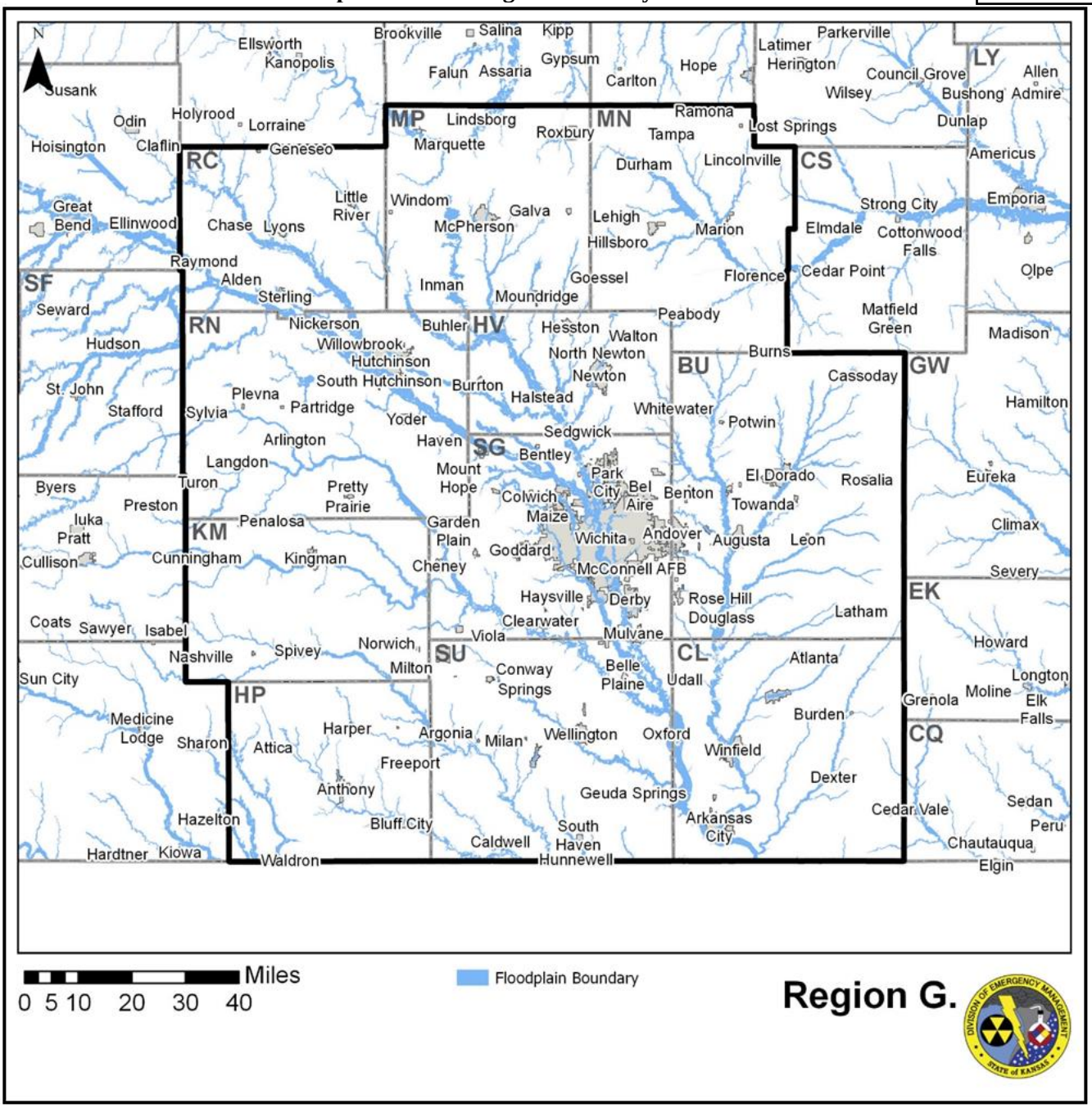
Table 86: Flood Zone Classifications

Zone	Description
A	The 1%-annual-chance or base floodplain. There are six (6) types of A Zones.
AE	The base floodplain where base flood elevations are provided.
AH	Shallow flooding base floodplain. BFEs are provided.
AO	The base floodplain with sheet flow, ponding, or shallow flooding. Base flood depths (feet above ground) are provided.
AR	The base floodplain that results from the decertification of a previously accredited flood protection system that is in the process of being restored to provide a 1%-annual-chance or greater level of flood protection.
A99	Area to be protected from base flood by levees or Federal Flood Protection Systems under construction. BFEs are not determined.
B or Shaded X	Areas between the limits of the base flood and the 0.2% annual-chance (or 500-year) flood.
C or Unshaded X	Areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2% annual-chance flood

Source: FEMA

The following maps use FEMA FIRM data to depict the location of identified flood zones within Kansas Region G.

Map 62: Kansas Region G County Flood Zones



Source: KDEM

4.13.3 Previous Occurrences

Historical events of significant magnitude or impact can result in a Presidential Disaster Declaration. Kansas Region G has experienced two Presidential Disaster Declarations related to flooding in the five-year period since the previous HMP, reflected in the following table.

Table 87: State of Kansas Region G Presidentially Declared Disasters, Flood

Designation	Declaration Date	Incident Type	Counties	Assistance
DR-4499-KS	08/14/2019	Severe Storms, Straight-Line Winds, Flooding, Tornadoes, Landslides, and Mudslides	Butler, Cowley, Harper, Harvey, Kingman, Marion, McPherson, Reno, Rice, and Sumner	$51,157,548

Table 87: State of Kansas Region G Presidentially Declared Disasters, Flood

Designation	Declaration Date	Incident Type	Counties	Assistance
DR-4417-KS	03/20/2019	Severe Storms, Straight-Line Winds, and Flooding	Cowley, Kingman, Reno, and Sumner	$3,509,374

Source: FEMA
Note: -: Data unavailable

In addition to the Presidentially Declared Disasters, the following table presents NCEI identified flood events in Kansas from 2009 to 2023:

Table 88: Kansas Region G NCEI Flood Events, 2009 - 2023

County	Event Type	Number of Days with Events	Property Damage	Deaths and Injuries
Butler	Flood	31	$12,700	1
	Flash Flood	17	$1,111,000	1
Cowley	Flood	11	$207,700	0
	Flash Flood	9	$30,400	0
Harper	Flood	8	$2,200	0
	Flash Flood	5	$5,000,000	1
Harvey	Flood	14	$1,700	0
	Flash Flood	8	$5,100	0
Kingman	Flood	11	$101,100	0
	Flash Flood	2	$100,000	0
Marion	Flood	15	$70,200	0
	Flash Flood	12	$340,600	0
McPherson	Flood	29	$10,100	0
	Flash Flood	6	$15,500	0
Reno	Flood	21	$506,200	0
	Flash Flood	5	$1,730,000	0
Rice	Flood	17	$326,500	0
	Flash Flood	5	$202,200	0
Sedgwick	Flood	48	$94,500	0
	Flash Flood	28	$2,188,000	0
Sumner	Flood	19	$215,100	0
	Flash Flood	8	$2,346,000	0

Source: NCEI

It is worth noting that damage estimates indicated by the NCEI are often artificially low. This underreporting is a result of the way the events are reported to the NCEI, often by the local and/or NWS office. When reporting an event oftentimes the NWS office does not have access to the actual damage assessment resulting from that event. As such, the report often details a very low amount or zero-dollar amount for damages.

The Secretary of Agriculture is authorized to designate counties as disaster areas to make emergency loans available to producers suffering losses in those counties and in counties that are contiguous to a designated county. USDA Secretarial disaster designations must be requested of the Secretary of Agriculture by a governor or the governor's authorized representative, and there is an expedited process for drought. The following table represents the total number of Secretarial Disaster Declarations, by county, for the Kansas Region G:

Table 89: Secretarial Flood Disaster Declarations, 2019 -2023

County	2022	2021	2020	2019
Butler	0	0	0	1
Cowley	0	0	0	1

Table 89: Secretarial Flood Disaster Declarations, 2019 -2023

County	2022	2021	2020	2019
Harper	0	0	0	0
Harvey	0	0	0	0
Kingman	0	0	0	0
Marion	0	0	0	1
McPherson	0	0	0	0
Reno	0	0	0	0
Rice	0	0	0	1
Sedgwick	0	0	0	1
Sumner	0	0	0	1

Source: USDA Farm Service Agency

4.13.4 Probability of Future Incidents

Based on historical occurrences, Kansas Region G will continue to experience flood events on an annual basis. The definition of each flood zone's classification is used for the purpose of calculating the yearly probability of a riverine flood. Jurisdictions with property in a 100-year floodplain can expect a 1% annual chance of flooding within the designated areas. Jurisdictions with property in a 500-year floodplain can expect a 0.2% annual chance of flooding within the designated areas. FEMA FIRMs can be consulted to provide assistance in determining flooding probability for jurisdictions within Kansas Region G.

The following tables, using data from the NCEI, indicate the yearly probability of a flood or flash flood event, the number of deaths or injuries, and estimated property damage for each county in Kansas Region G.

Table 90: Kansas Region G NCEI Flood Event Probability Summary

County	Days with Event	Average Events per Year	Deaths / Injuries	Average Deaths / Injuries per Year	Property Damage	Average Property Damage per Year
Butler	31	2	1	<1	$12,700	$847
Cowley	11	1	0	0	$207,700	$13,847
Harper	8	1	0	0	$2,200	$147
Harvey	14	1	0	0	$1,700	$113
Kingman	11	1	0	0	$101,100	$6,740
Marion	15	1	0	0	$70,200	$4,680
McPherson	29	2	0	0	$10,100	$673
Reno	21	1	0	0	$506,200	$33,747
Rice	17	1	0	0	$326,500	$21,767
Sedgwick	48	3	0	0	$94,500	$6,300
Sumner	19	1	0	0	$215,100	$14,340

Source: NCEI

Table 91: Kansas Region G NCEI Flash Flood Event Probability Summary

County	Days with Event	Average Events per Year	Deaths / Injuries	Average Deaths / Injuries per Year	Property Damage	Average Property Damage per Year
Butler	17	1	1	<1	$1,111,000	$74,067
Cowley	9	1	0	0	$30,400	$2,027
Harper	5	0	1	<1	$5,000,000	$333,333
Harvey	8	1	0	0	$5,100	$340
Kingman	2	0	0	0	$100,000	$6,667
Marion	12	1	0	0	$340,600	$22,707
McPherson	6	0	0	0	$15,500	$1,033
Reno	5	0	0	0	$1,730,000	$115,333

Table 91: Kansas Region G NCEI Flash Flood Event Probability Summary

County	Days with Event	Average Events per Year	Deaths / Injuries	Average Deaths / Injuries per Year	Property Damage	Average Property Damage per Year
Rice	5	0	0	0	$202,200	$13,480
Sedgwick	28	2	0	0	$2,188,000	$145,867
Sumner	8	1	0	0	$2,346,000	$156,400

Source: NCEI

4.13.5 Projected Changes in Location, Intensity, Frequency, and Duration

The location, intensity, frequency, and duration of flooding are influenced by a combination of natural and human-induced factors.

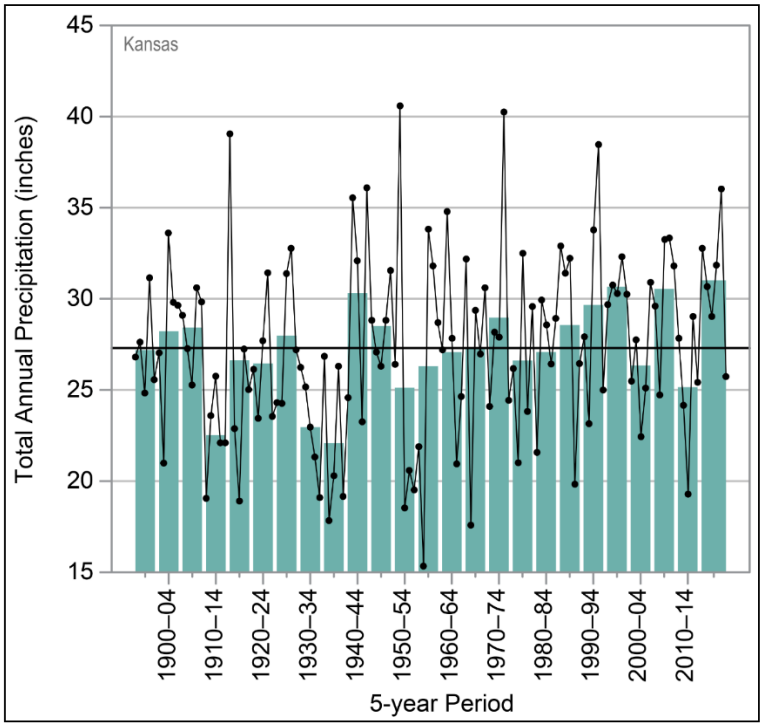
Continued urbanization, deforestation, and changes in land use can alter natural drainage patterns. The conversion of natural landscapes to impervious surfaces, such as roads and buildings, reduces the ability of the land to absorb water, leading to increased runoff and the potential for urban flooding. Alterations to river channels, including channelization and dam construction, can influence the flow of water. Modifications may lead to changes in river behavior, affecting the potential for both upstream and downstream flooding. Poorly planned infrastructure, inadequate stormwater management, and the lack of effective drainage systems in urban areas can contribute to localized flooding. The increase in impervious surfaces reduces natural infiltration, leading to more runoff during rainfall events.

Potentially impacting the future of flood events, **t**he NOAA NCEI State Climate Summary 2022 for Kansas indicates:

- Precipitation is highly variable from year to year.
- The majority of precipitation falls during the warm-season months.
- Throughout the period of record (1895–2020), total annual precipitation has generally been above average since 1985.
- The wettest consecutive 5-year interval was 2015–2019.
- The frequency of extreme precipitation events has been highly variable but shows a general increase.
- The number of 2-inch precipitation events was well above average during the 2015–2020 period.
- The increase in extreme precipitation events has been more pronounced in the eastern part of the state.

The flowing charts detail the annual precipitation and extreme precipitation events for Kansas Region G:

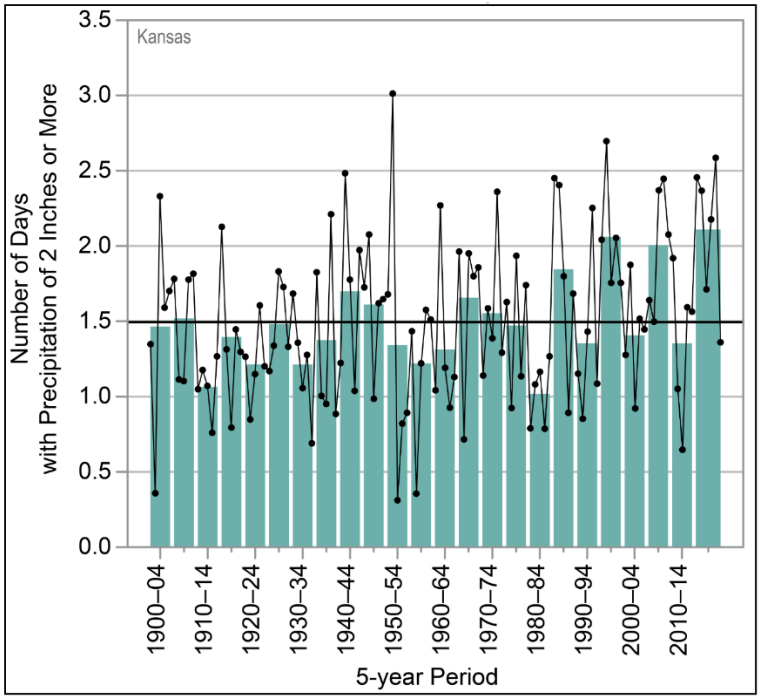
Chart 24: Kansas Total Annual Precipitation



Source: NOAA NCEI Summary 2022 for Kansas

Additionally, the NOAA NCEI State Climate Summary 2022 for Kansas suggests that the number of extreme precipitation events are projected to increase. These extreme events will likely increase the incidence of flooding within Kansas Region G.

Chart 25: Kansas Region G Number of Extreme Precipitation Events (Greater Than 2 Inches)

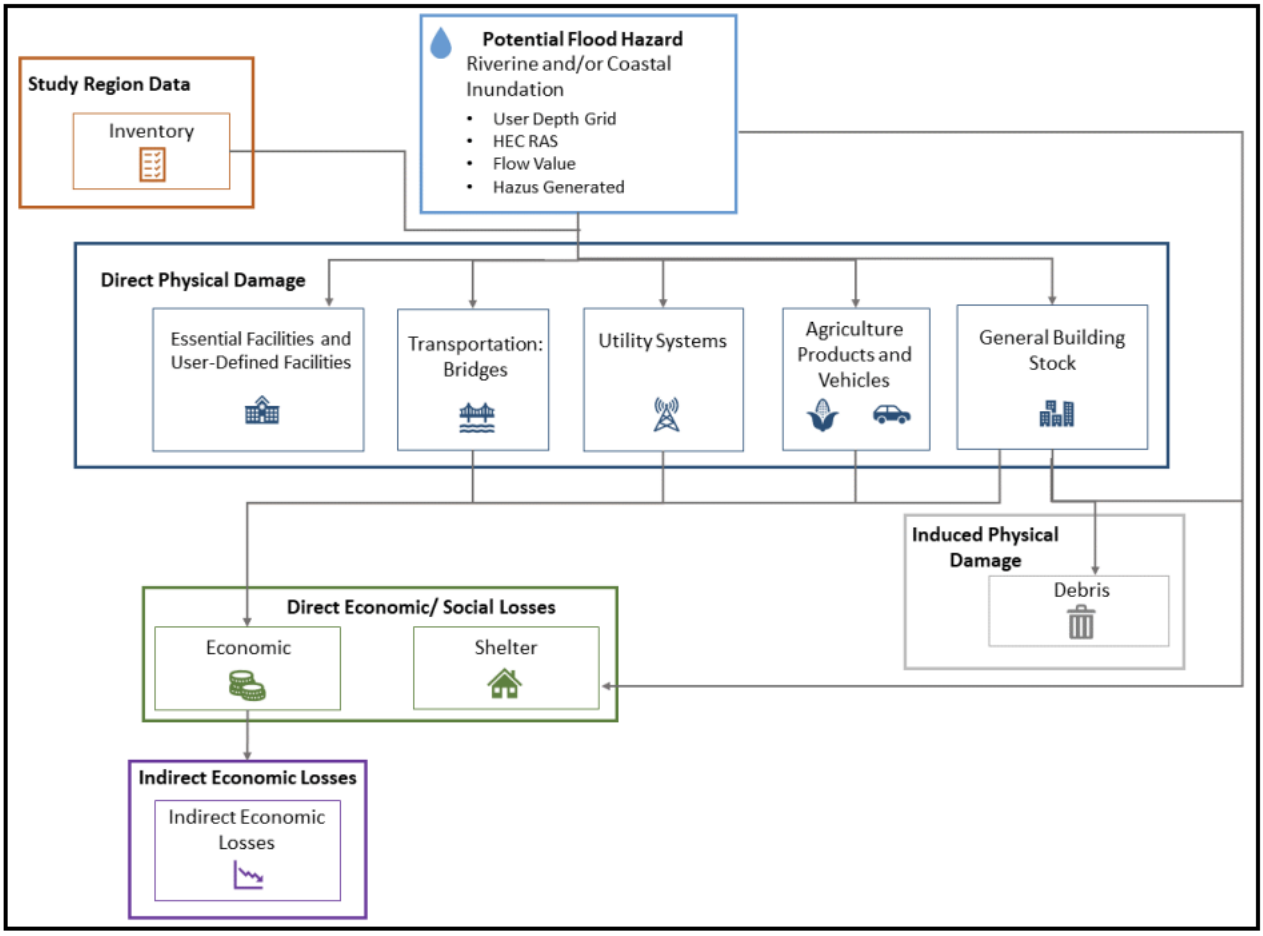


Source: NOAA NCEI State Climate Summary 2022 for Kansas

4.13.6 Vulnerability and Impact

For purposes of this plan, a Hazus Flood Model was generated to provide an estimate of the consequences to a Kansas Region G county flood. The resulting loss estimate generally describes the scale and extent of damage and disruption that may result from the modeled flood event. The Hazus software uses GIS technologies for performing analyses with inventory data and displaying losses and consequences on applicable tables and maps. The following figure provides a graphic representation of the modules that the Hazus Flood Model Methodology is comprised of, and their interrelation in deriving estimates.

Figure 2: Hazus Flood Model Methodology



Source: FEMA

The results of the Hazus analysis were utilized to estimate potential losses for flooding. The intent of this analysis was to enable Kansas Region G to estimate where flood losses could occur and the degree of severity using a consistent methodology. The Hazus model helps quantify risk along known flood-hazard corridors as well as lesser streams and rivers that have a drainage area of ten square miles or more.

Hazus determines the displaced population based on the inundation area, not necessarily impacted buildings. As a result, there may be a population vulnerable to displacement even if the structure is not vulnerable to damage. Individuals and households will be displaced from their homes even when the home has suffered little or no damage either because they were evacuated or there was no physical access to the property because of flooded roadways.

Flood sheltering needs are based on the displaced population, not the damage level of the structure. Hazus determines the number of individuals likely to use government-provided short-term shelters through determining the number of displaced households as a result of the flooding. To determine how many of those households and the corresponding number of individuals will seek shelter in government-provided shelters, the number is modified by factors accounting for income and age. Displaced people using shelters will most likely be individuals with lower incomes and those who

do not have family or friends within the immediate area. Since the income and age factors are taken int proportion of displaced population and those seeking shelter will vary from county to county.

Additionally, Hazus takes into account flood depth when modeling damage (based on FEMA's depth-damage functions). Generated reports capture damage by occupancy class (in terms of square footage impacted) by damage percent classes. Occupancy classes include agriculture, commercial, education, government, industrial, religion, and residential. Damage percent classes are grouped by 10% increments up to 50%. Buildings that sustain more than 50% damage are considered to be substantially damaged.

The Hazus analysis also provides an estimate of the repair costs for impacted buildings as well as the associated loss of building contents and business inventory. Building damage can also cause additional losses to a community by restricting a building's ability to function properly. Income loss data accounts for losses such as business interruption and rental income losses as well as the resources associated with damage repair and job and housing losses. These losses are calculated by Hazus using a methodology based on the building damage estimates.

The damaged building counts generated by Hazus are susceptible to rounding errors and are likely the weakest output of the model due to the use of census blocks for analysis. Generated reports include this disclaimer: "Unlike the earthquake and hurricane models, the flood model performs its analysis at the census block level. This means that the analysis starts with a small number of buildings within each census block and applies a series of distributions necessary for analyzing the potential damage. The application of these distributions and the small number of buildings make the flood model more sensitive to rounding errors that introduces uncertainty into the building count results." Additionally, losses are not calculated for individual buildings, but instead are based on the performances of entire classes of buildings obtained from the general building stock data. In the flood model, the number of grid cells (pixels) at each flood depth value is divided by the total number of grid cells in the census block. The result is used to weight the flood depths applied to each specific occupancy type in the general building stock. First floor heights are then applied to determine the damage depths to analyze damages and losses.

The following table provides the HAZUS results for displaced households, damaged buildings, destroyed buildings, and total economic loss for Kanas Region G:

Table 92: Kansas Region G Hazus Flood Scenario Displaced Population Building Damages

County	Displaced Households	Damaged Buildings	Destroyed Buildings	Total Economic Loss
Butler	789	178	4	$162,260,000
Cowley	368	60	1	$67,260,000
Harper	19	3	0	$2,080,000
Harvey	578	134	10	$105,710,000
Kingman	58	5	5	$17,990,000
Marion	275	90	0	$90,670,000
McPherson	333	55	1	$59,810,000
Reno	3,435	786	0	$447,070,000
Rice	107	8	0	$20,290,00
Sedgwick	21,606	12,620	440	$4,224,470,000
Sumner	301	62	0	$33,690,000

Source: FEMA Hazus

Especially critical is timely evacuation orders, and adherence to those orders. If evacuation is not heeded, or flood waters rise quickly enough, citizens could drown or become trapped for extended periods of time with no access to services or medical care. Of special concern are long term care and medical facilities where it can take longer to evacuate, or evacuation may be impossible. Additionally, lower income citizens may not have the means to relocate, whether it be lack of transportation or lack of resources to afford temporary shelter. Expected impacts of flooding on citizens may include:

- Loss of Life: Flooding is one of the leading causes of weather-related fatalities worldwide. Fast-rising floodwaters can lead to drowning and other water-related accidents, resulting in the tragic loss of lives.
- Injuries: Floods can cause injuries due to waterborne diseases, contaminated floodwaters, debris, and accidents during evacuation or rescue operations.
- Displacement: Many people may be forced to evacuate their homes during floods and will require emergency shelter or temporary housing. Prolonged displacement can be emotionally and economically challenging.
- Health Risks: Floodwaters often contain pollutants, sewage, and hazardous materials. Exposure to contaminated water can lead to waterborne diseases, infections, and other health risks.
- Mental Health Effects: Survivors of floods may experience a range of emotional and psychological challenges, including post-traumatic stress disorder, anxiety, depression, and grief.
- Food and Water Shortages: Floods can contaminate water supplies and disrupt the distribution of food. This can lead to shortages of clean drinking water and essential food items.
- Impact on Vulnerable Populations: Vulnerable populations, including the elderly, children, people with disabilities, and those living in poverty, are often disproportionately affected by floods due to limited resources and mobility challenges.
- Long-Term Consequences: Some flood impacts, such as mold growth, structural damage, and land degradation, can have long-term consequences that persist even after the floodwaters recede.

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Floods can have significant and often costly impacts on facilities and critical infrastructure. These impacts can disrupt essential services, damage infrastructure, and pose safety risks. The extent of the impact depends on factors such as the severity of the flood, the preparedness of the infrastructure, and the effectiveness of flood management measures. Here are some of the common impacts of floods on facilities and critical infrastructure:

- Structural Damage: Floodwaters can cause extensive damage to buildings, including critical infrastructure such as power plants, water treatment facilities, hospitals, and transportation hubs. The force of moving water can weaken foundations, erode structural elements, and compromise the integrity of buildings.

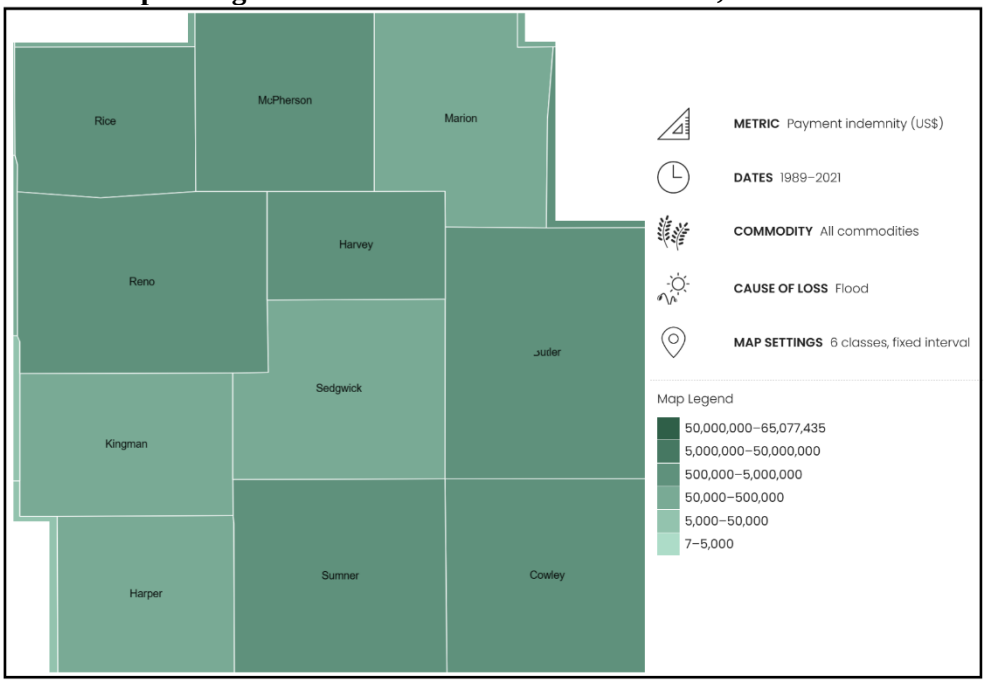
- Electrical and Mechanical Systems: Floodwaters can damage electrical systems, including switchgear, and electrical panels, leading to power outages and the disruption of critical services. Mechanical systems, such as heating, ventilation, and air conditioning, may also be affected.
- Water and Wastewater Infrastructure: Floods can overwhelm water supply and wastewater treatment systems. Contamination of drinking water sources can lead to water shortages and health risks, while damage to wastewater treatment plants can result in the discharge of untreated sewage into water bodies.
- Transportation Networks: Floods can damage roads, bridges, railways, and airports, making transportation difficult or impossible.
- Communication Infrastructure: Floods can disrupt telecommunications and internet services, hindering communication among emergency responders and the public. Loss of communication can impede coordination and response efforts.
- Healthcare Facilities: Damage to healthcare infrastructure can limit the capacity to provide medical care during a crisis.
- Energy Infrastructure: Floods can damage power generation facilities, including hydroelectric dams and power plants, leading to power outages and potential safety hazards.

To mitigate the impacts of floods on facilities and critical infrastructure, proactive measures are essential. These measures include proper land use planning, floodplain management, improved building codes and construction standards, early warning systems, flood-resistant infrastructure design, and effective emergency response plans.

Environmental impacts from flooding can be far reaching. Of particular concern is flood related runoff, potentially carrying sewage, pesticides, or hazardous chemicals, which can cause long lasting environmental harm. Expected negative outcomes could include changes in habitat, a decrease of available food, and an increase in the spread of vector-associated disease due to standing water.

Flood events can cause significant agricultural impacts. The following map from the United States Department of Agriculture details total agricultural losses, by county, due to flood conditions from 1989 to 2021:

Map 63: Agricultural Losses Due to Flood Events, 1989 to 2021



Source: USDA

Floods can pose significant risks to local operations, as they can result in a wide range of immediate and long-term consequences including:

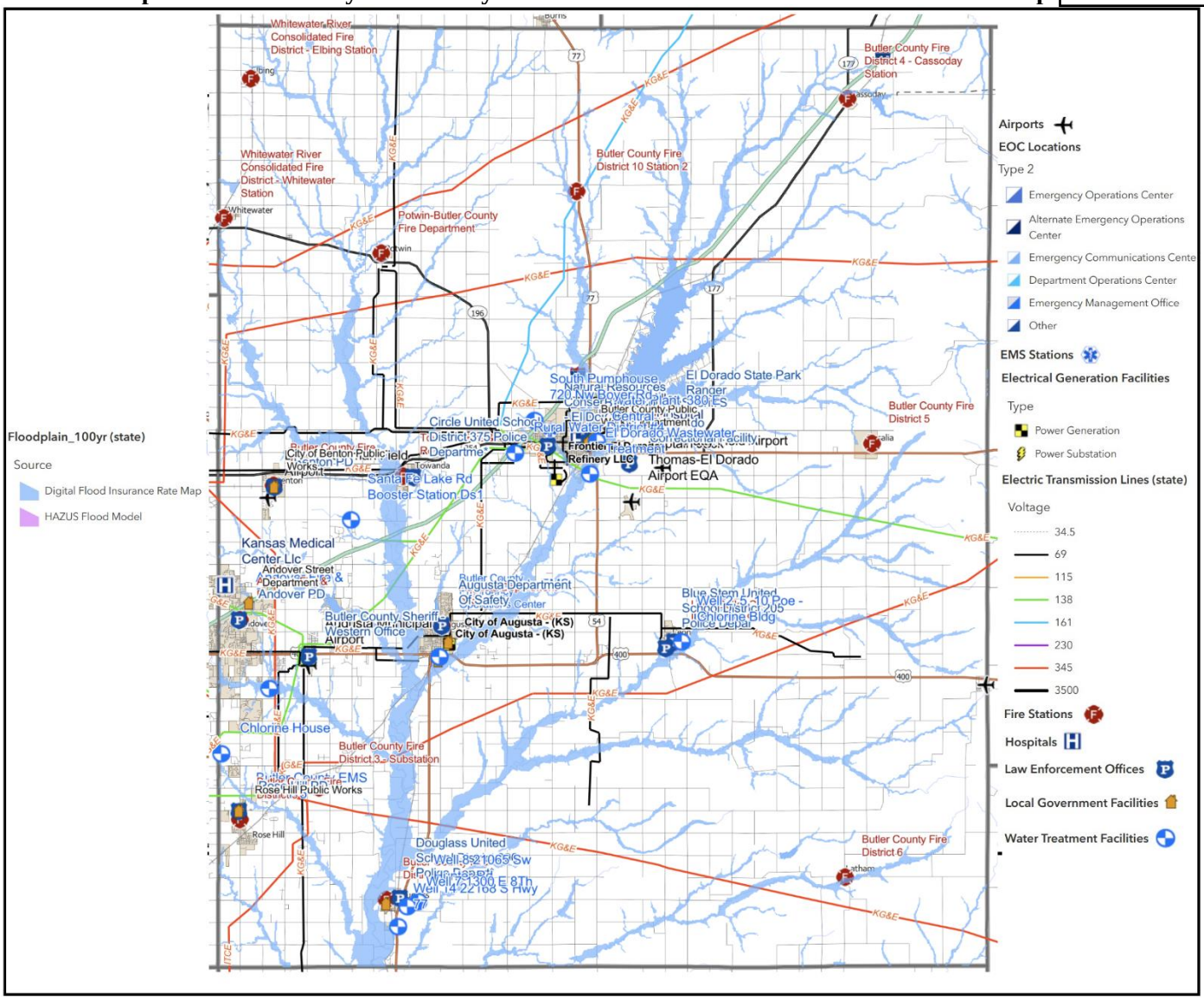
- Emergency Response and Management: Multiple counties and local jurisdictions may be mobili to floods. They would coordinate rescue operations, evacuations, and disaster response efforts to mitigate immediate risks to human life and property.
- Infrastructure Damage and Maintenance: Transportation and public works departments may need to assess and repair damage to roads, bridges, and other critical infrastructure affected by floodwaters and debris. This can strain resources and disrupt transportation networks.
- Environmental Oversight and Regulation: Health departments mat be responsible for assessing the environmental impact of floods, monitoring water quality, and coordinating cleanup efforts. They may also be involved in addressing long-term environmental consequences.
- Water Resource Management: Water resource agencies may need to manage and allocate water resources differently in the aftermath of floods, especially if the flood affects water supplies, water quality, or flood control systems.
- Public Health and Safety: Public health departments may provide support for public health needs during and after a flood, managing emergency shelters and addressing potential health risks from contaminants or waterborne diseases.
- Long-Term Recovery: County emergency management agencies play a critical role in long-term recovery efforts, including securing federal disaster assistance, providing financial support to affected communities, and helping with the rebuilding and restoration of infrastructure.

Potentially Vulnerable Community Lifelines

Flooding can impact various community lifelines, critical systems and services that communities rely on for their functioning. Vulnerabilities arise due to the stress that flooding can place on infrastructure, resources, and operational processes.

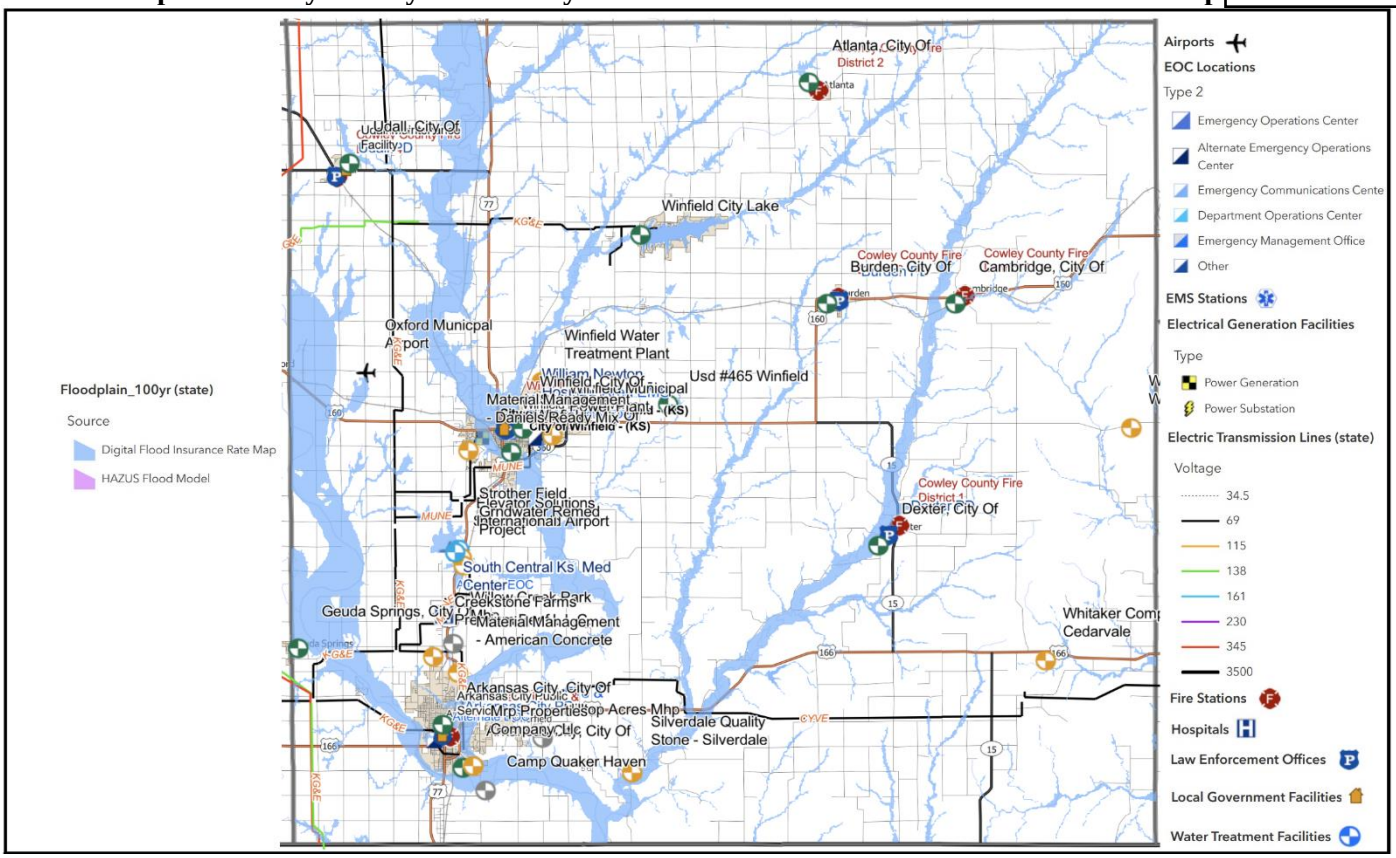
The following maps, generated using the State of Kansas EOPmapper system, detail the location of community lifelines and critical facilities in identified 100-year floodplains:

Map 64: Butler County Community Lifelines and Critical Facilities in 100-Year Floodpl



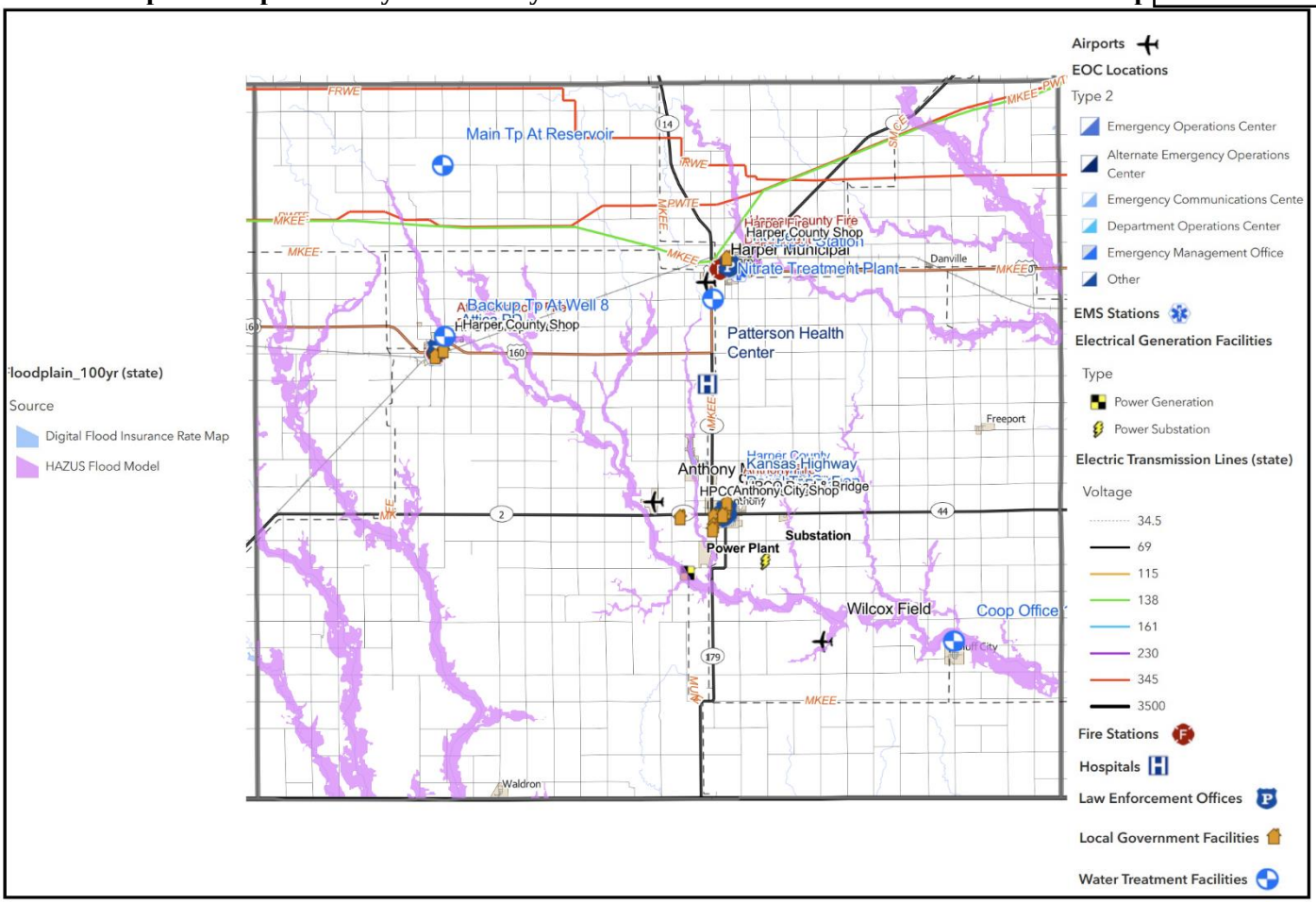
Source: KDEM EOPmapper

Map 65: Cowley County Community Lifelines and Critical Facilities in 100-Year Floodpl



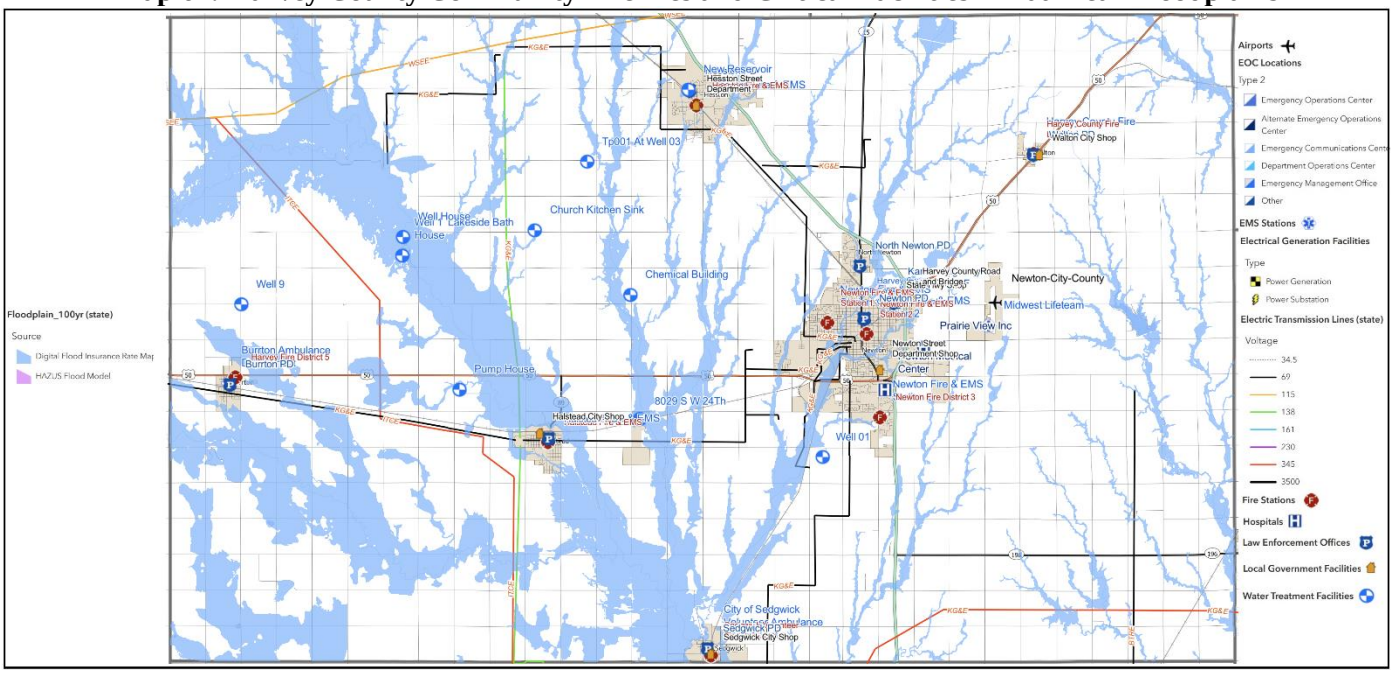
Source: KDEM EOPmapper

Map 66: Harper County Community Lifelines and Critical Facilities in 100-Year Floodpl



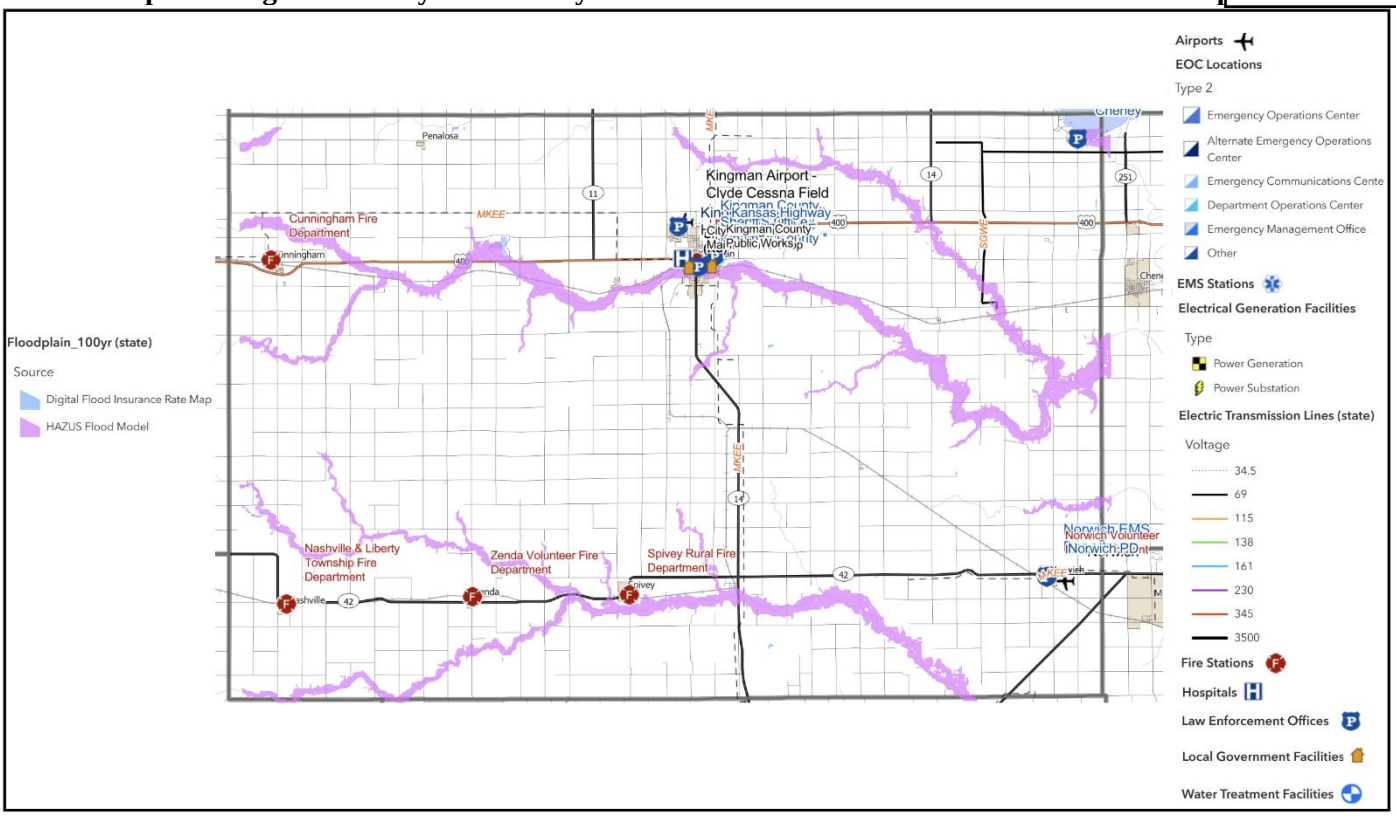
Source: KDEM EOPmapper

Map 67: Harvey County Community Lifelines and Critical Facilities in 100-Year Floodplains



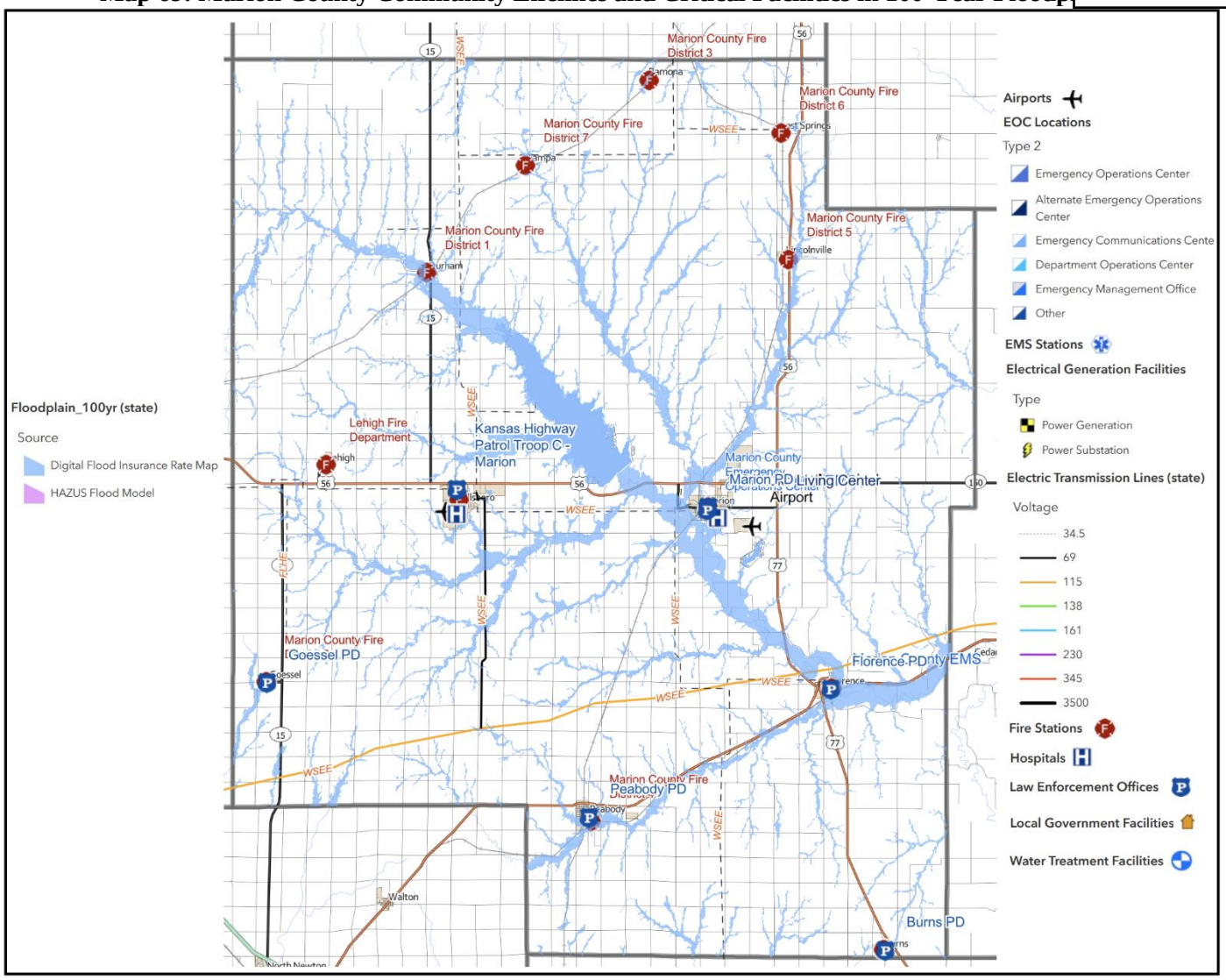
Source: KDEM EOPmapper

Map 68: Kingman County Community Lifelines and Critical Facilities in 100-Year Floodp



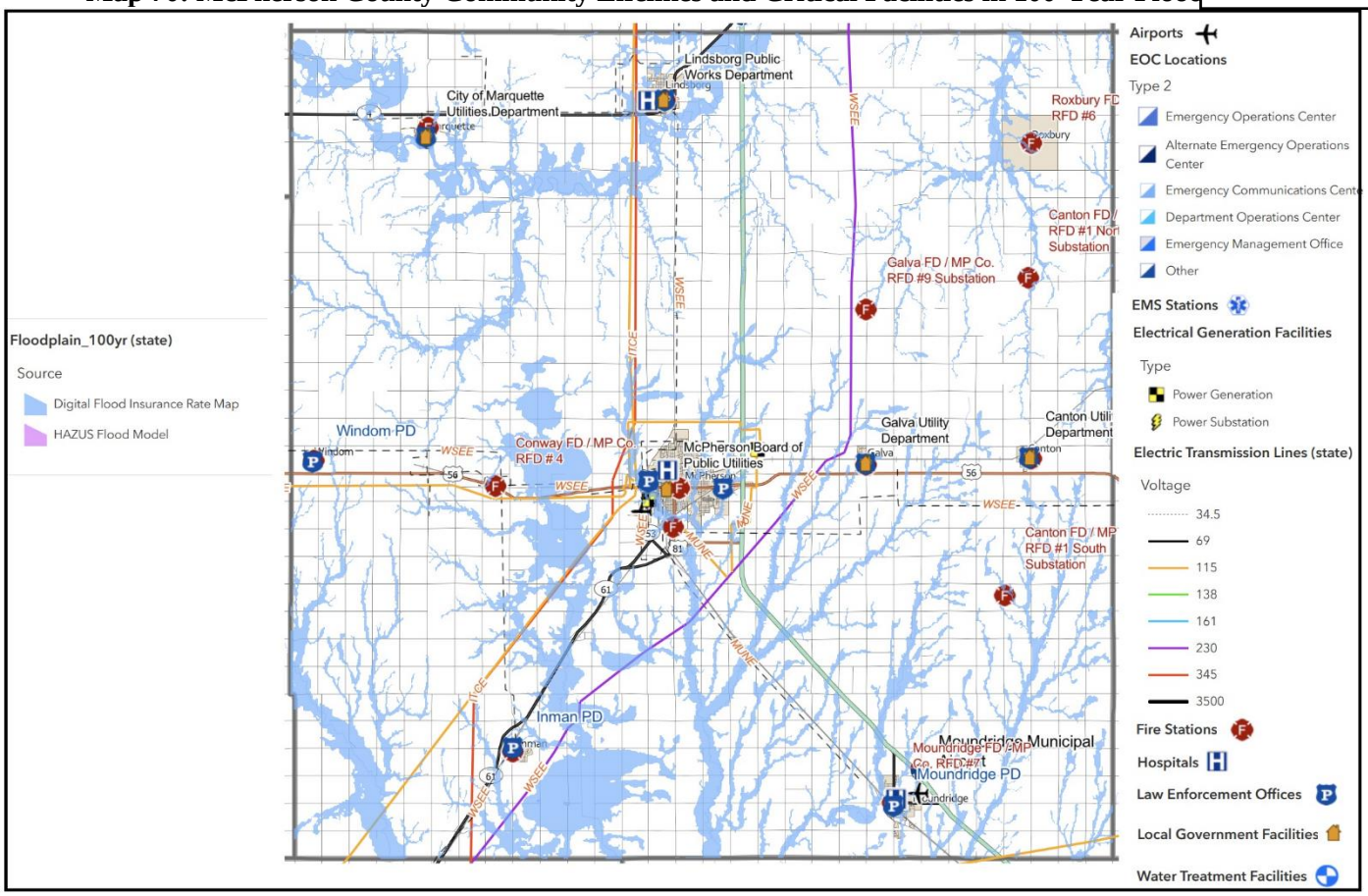
Source: KDEM EOPmapper

Map 69: Marion County Community Lifelines and Critical Facilities in 100-Year Floodp



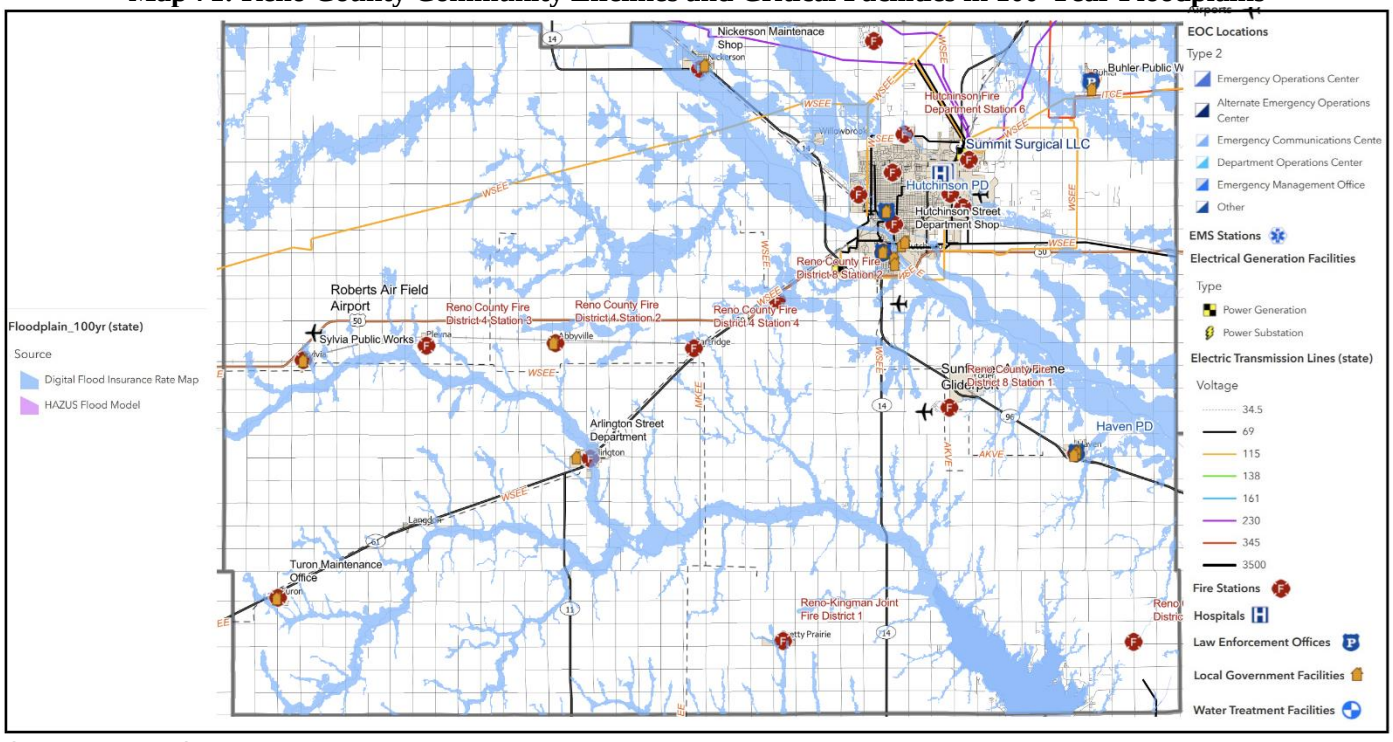
Source: KDEM EOPmapper

Map 70: McPherson County Community Lifelines and Critical Facilities in 100-Year Flood



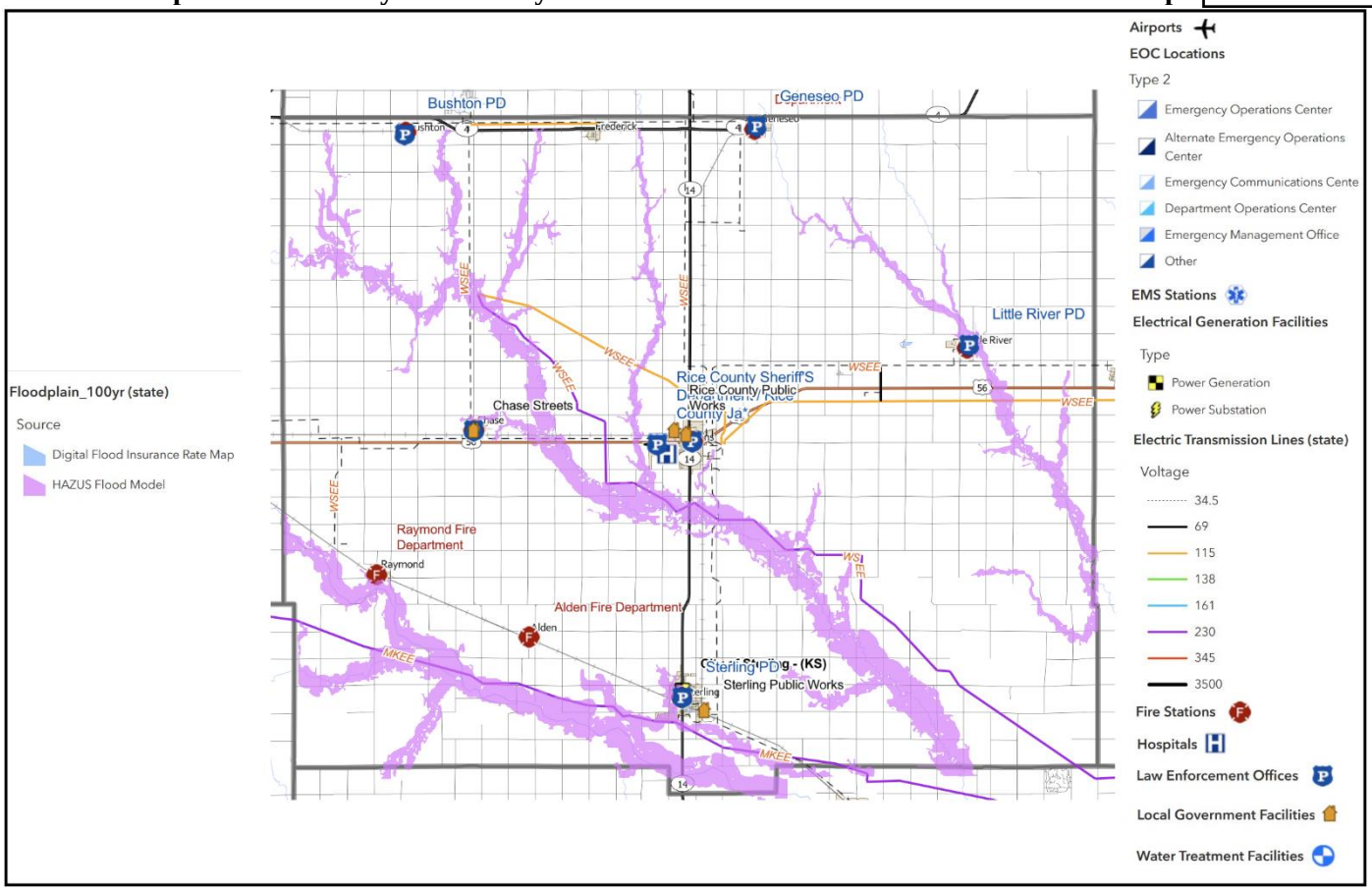
Source: KDEM EOPmapper

Map 71: Reno County Community Lifelines and Critical Facilities in 100-Year Floodplains



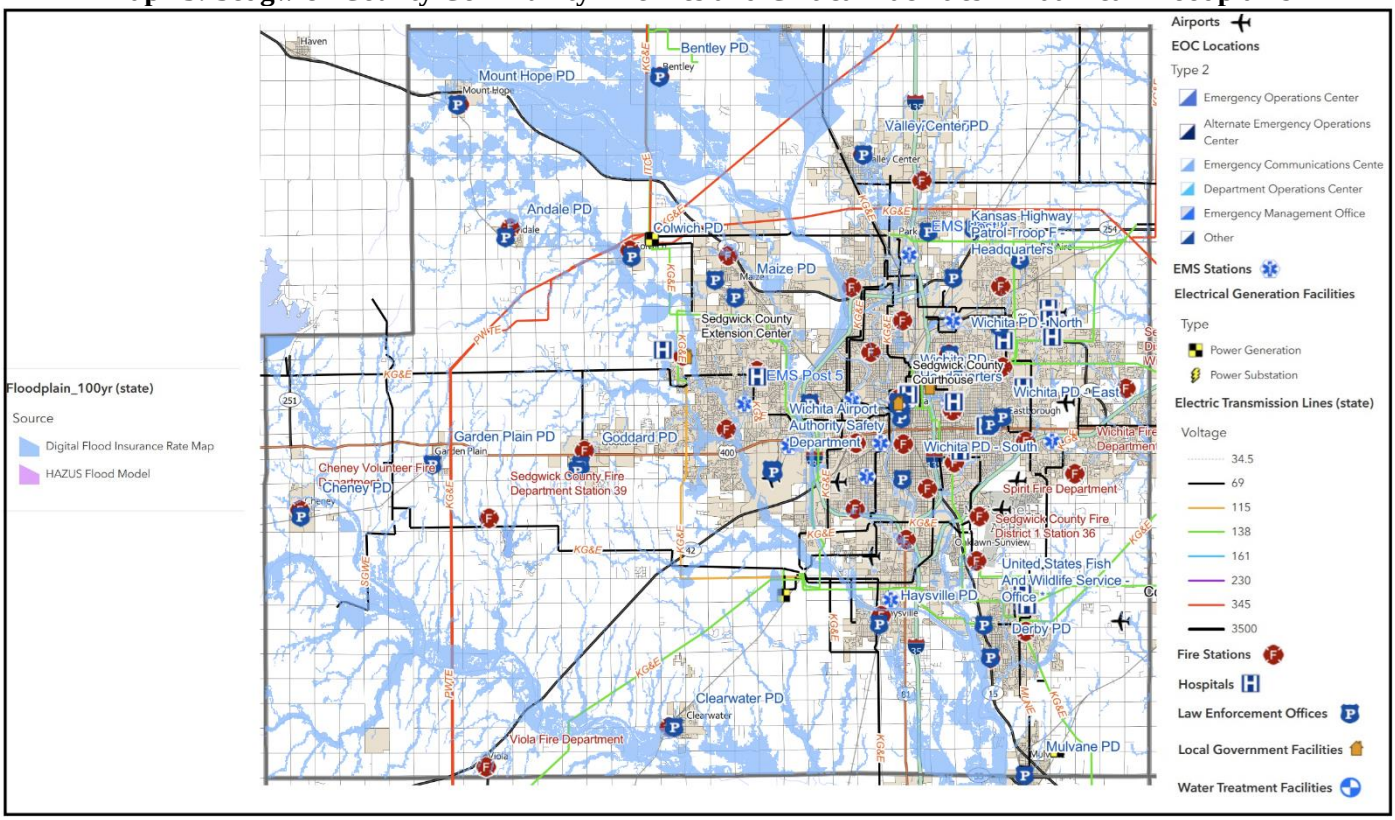
Source: KDEM EOPmapper

Map 72: Rice County Community Lifelines and Critical Facilities in 100-Year Floodpla



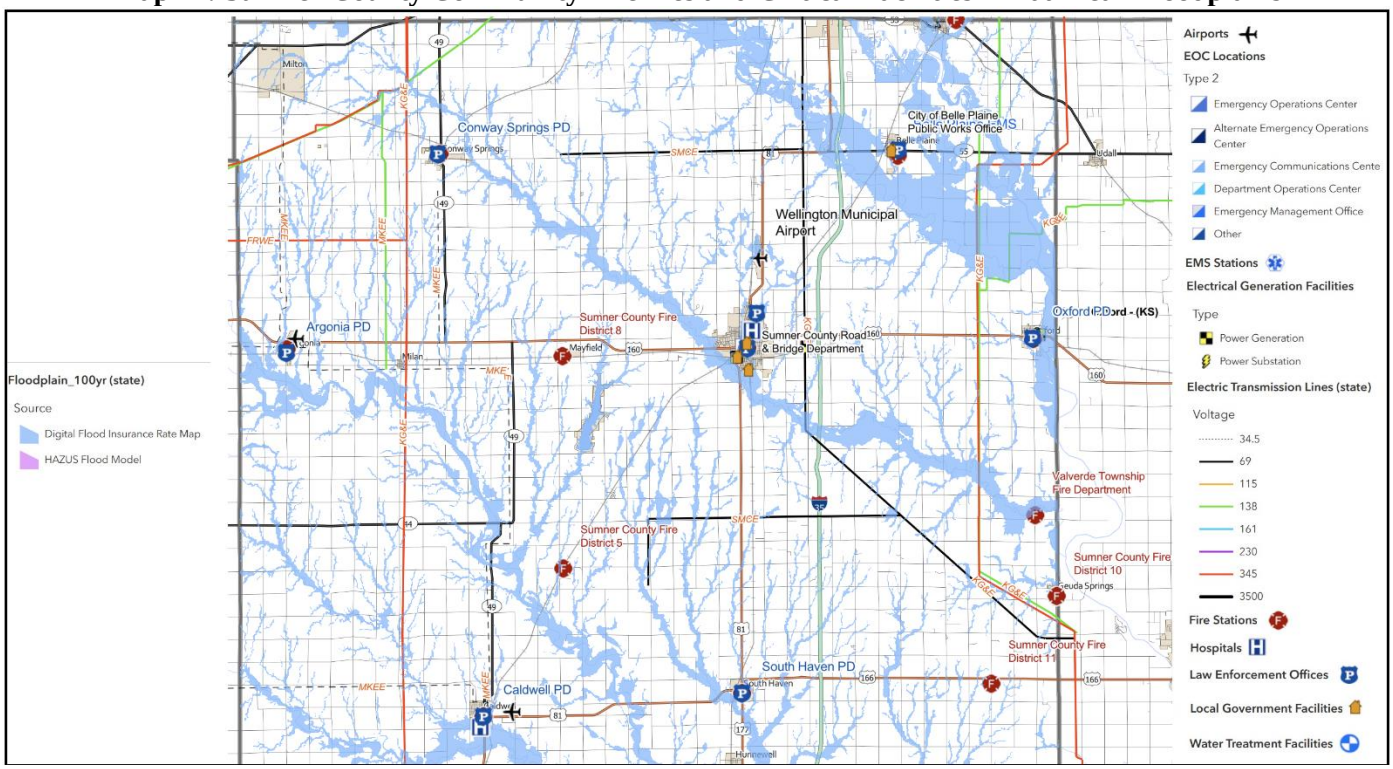
Source: KDEM EOPmapper

Map 73: Sedgwick County Community Lifelines and Critical Facilities in 100-Year Floodplains



Source: KDEM EOPmapper

Map 74: Sumner County Community Lifelines and Critical Facilities in 100-Year Floodplains



Source: KDEM EOPmapper

Flooding can have significant and widespread impacts on road infrastructure. The extent of the damage depends on factors such as the severity and duration of the flood, the type of flooding (river overflow, flash flooding), and the design and resilience of the road infrastructure. Impacts may include:

- Structural Damage: Floodwaters can erode road surfaces, weaken foundations, and damage bridges and culverts. The force of flowing water can undermine the structural integrity of roads and cause washouts.
- Road Surface Erosion: The erosion caused by floodwaters can remove the top layer of road surfaces, leading to potholes, cracks, and a general deterioration of the road condition.
- Subsidence and Sinkholes: The infiltration of water into road foundations can cause subsidence or create sinkholes.
- Debris Accumulation: Floodwaters often carry debris such as logs, branches, and sediment. The accumulation of debris on roads can impede drainage systems, block culverts, and hinder the flow of water.
- Road Closures: Flooding can result in the closure of roads due to safety concerns. High water levels, washouts, or structural damage may make roads impassable, leading to disruptions in transportation.
- Loss of Road Markings and Signs: Floodwaters can wash away road markings and signs, reducing visibility and creating safety hazards for motorists.
- Long-Term Damage: Even after floodwaters recede, long-term damage to road infrastructure may persist. Subsurface waterlogging, soil destabilization, and residual structural weaknesses can contribute to ongoing deterioration.

The cost to conduct maintenance on a road can vary significantly depending on the types of work required. However, the average estimate for repairs on a per mile basis in 2019 was $14,750 per mile. The cost to replace a road can vary significantly based on several factors, including the type of road, local labor and material costs, the complexity of the project, and the specific requirements of the replacement. As a rough estimate, road construction costs can range from $1,000,000 to $10,000,000 per mile.

Flooding can have substantial and often severe impacts on electrical utilities, disrupting power generation and distribution systems. The consequences of flooding on electrical utilities can vary depending on factors such as the depth and duration of the flooding and the type of infrastructure affected, and may include:

- Substation and Power Plant Damage: Floodwaters can inundate electrical substations and power plants, damaging critical equipment such as transformers, switchgear, and control systems. Substantial damage to these facilities can lead to prolonged outages.
- Electrical Equipment Short-Circuits: Water infiltration into electrical equipment can cause short-circuits, leading to equipment failure and potentially causing fires. This can result in widespread power outages and safety hazards.
- Transmission Line Disruptions: Floodwaters can impact the stability of transmission towers and lines. Structural damage or collapse of transmission infrastructure can disrupt the flow of electricity over long distances.
- Distribution Network Damage: Localized flooding can damage distribution infrastructure, including power lines, poles, and transformers. This can lead to outages in specific neighborhoods or communities.
- Transformer Submersion: Floodwaters can submerge transformers, which are critical components in power distribution. Submersion can cause these transformers to malfunction or fail, leading to service interruptions.
- Underground Cable Damage: Underground power cables can be damaged by flooding, especially in areas with subterranean infrastructure. Water infiltration can compromise cable insulation, leading to electrical faults and outages.
- Loss of Fuel Supply: Natural gas power plants may face challenges in maintaining a stable fuel supply if transportation routes are disrupted due to flooding.

In order to reduce plan duplication, mapping concerning electrical generation plants, high-capacity transmission lines, and electrical utility providers as well as utility repair and replacement cost estimation provides may be found in Section 4.9.6, maps 33 and 34 and Chart 15.

The Hazus model indicated that the following number of critical facilities are estimated to be damaged or suffer loss of use from the flood scenario.

Table 93: Kansas Region G Hazus Flood Scenario Number of Critical Facilities Damaged or Impacted

County	Emergency Operations Centers	Fire Stations	Hospitals	Police Stations	Schools
Butler	0	1	0	0	0
Cowley	0	0	0	0	0
Harper	0	0	0	0	0
Harvey	0	0	0	0	0
Kingman	0	0	0	0	0
Marion	0	0	0	0	0
McPherson	0	0	0	0	0
Reno	0	0	0	0	0
Rice	0	0	0	0	0
Sedgwick	0	0	0	0	0
Sumner	0	0	0	0	0

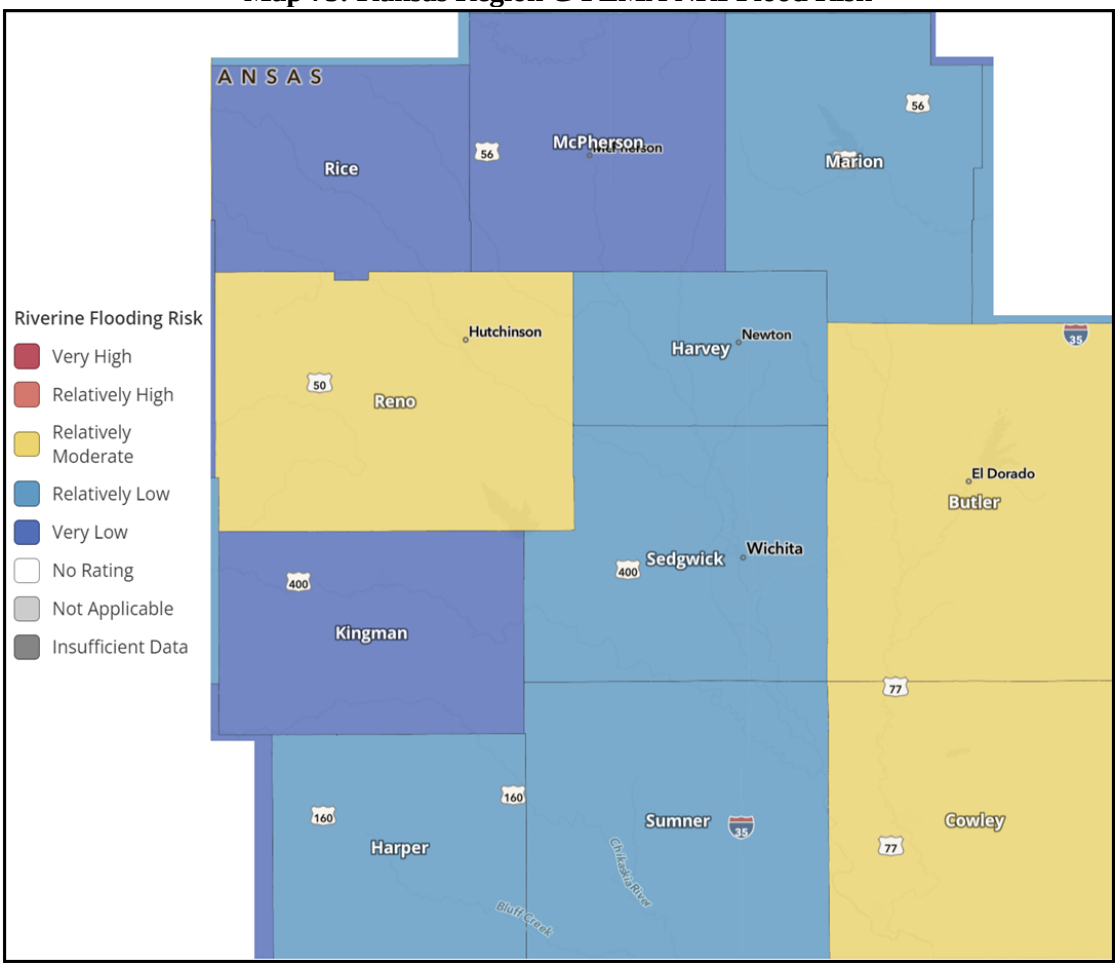
Source: FEMA Hazus

Hospitals and other smaller medical facilities may see an increase in flood related during an event, but it is considered unlikely that this increase will impact or overload capacity. Hospital capacity mapping may be found in Section 4.9.6, Map 35.

FEMA NRI

Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating counties from flood:

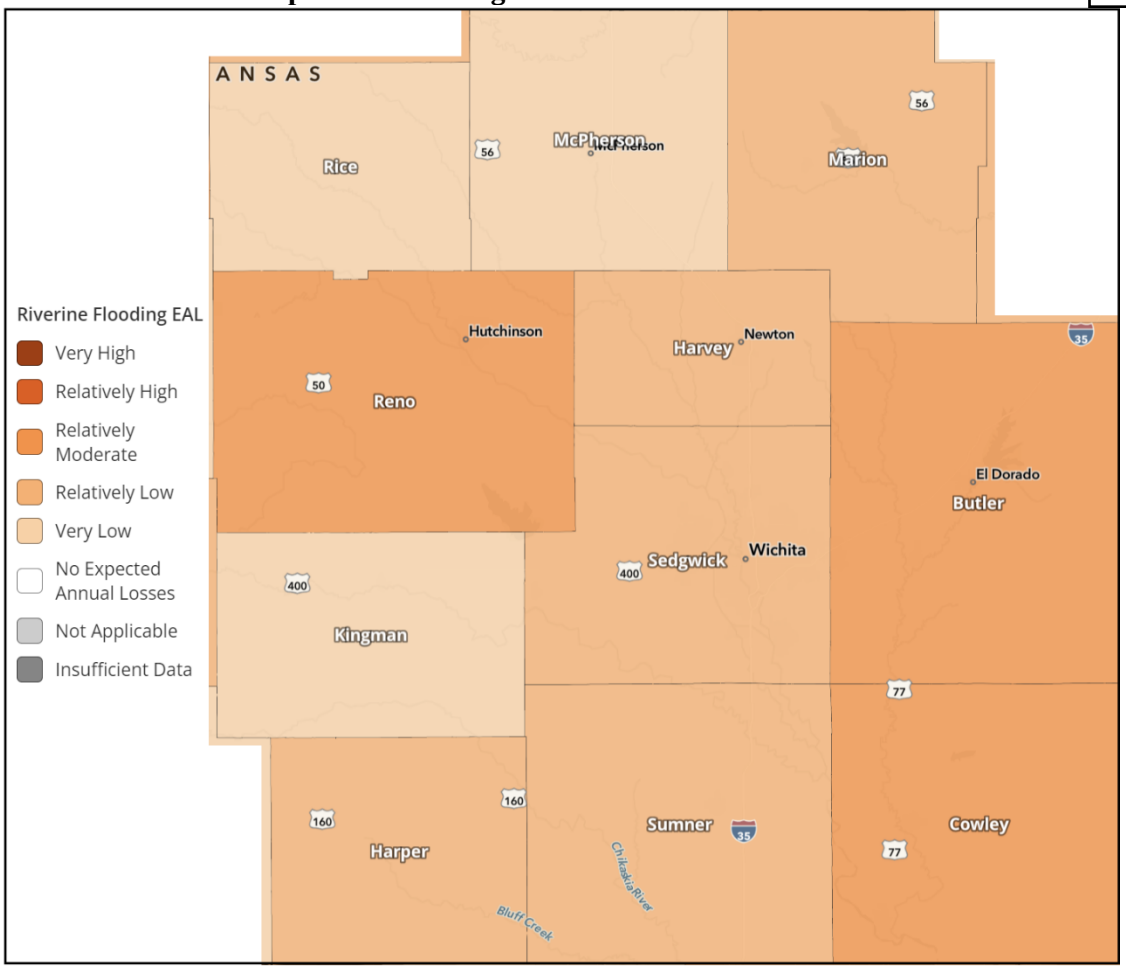
Map 75: Kansas Region G FEMA NRI Flood Risk



Source: FEMA NRI

As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for floods for participating counties within Kansas Region G:

Map 76: Kansas Region G FEMA NRI Flood EAL



Source: FEMA NRI

The following table indicates the FEMA NRI and EAL analysis for each participating Kansas Region G county for flood:

Table 94: Kansas Region G FEMA NRI and EAL for Flood by County

County	Risk Index	EAL
Butler	Relatively Moderate	Relatively Moderate
Cowley	Relatively Moderate	Relatively Moderate
Harper	Relatively Low	Relatively Low
Harvey	Relatively Low	Relatively Low
Kingman	Very Low	Very Low
Marion	Relatively Low	Relatively Low
McPherson	Very Low	Very Low
Reno	Relatively Moderate	Relatively Moderate
Rice	Very Low	Very Low
Sedgwick	Relatively Low	Relatively Low
Sumner	Relatively Low	Relatively Low

Source: FEMA NRI

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 95: Flood Consequence Analysis

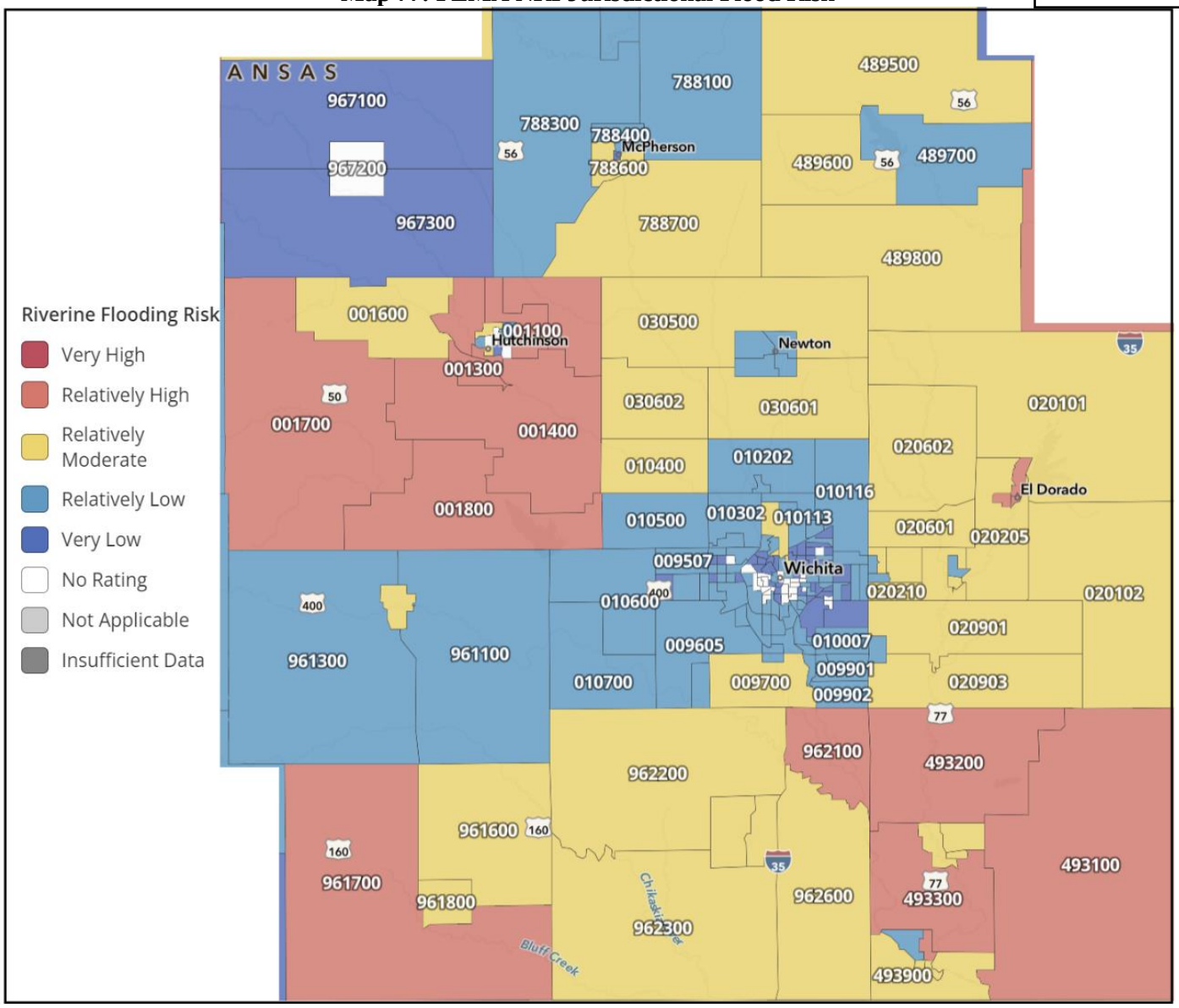
Subject	Potential Impacts
Impact on the Public	Significant flooding events can lead to the damage and loss of homes, property, and businesses. Flash flooding and excessive rainfall may lead to dangerous conditions on roadways. Closures of medical facilities is a major public health concern if flooding damages those facilities. Water sources may become contaminated, and water or sewer systems may be disrupted. Vector-associated disease may increase.
Impact on Responders	Fire, police, and emergency responders may be called on to evacuate people from impacted areas, as well as close roads, attend to the injured, and direct traffic away from the flooded area and roads. First responders may face challenges with transportation and access to a location. Flash floods and mudslides due to heavy rainfall can also injure first responders, as well as delay response operations.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. Floods which create power outages, debris damage, and road closures are not uncommon. This threat may impact an agency's ability to maintain continuity of operations based on the incidents impact on power, communications and the potential to damage equipment and records within primary and alternate facilities.
Delivery of Services	Flooding can cause road and bridge closures, as well as disrupt transit services, impacting the ability to deliver goods and services. Exposure to flood waters may also damage or destroy physical goods such as food, clothing, and hygiene products.
Property, Facilities, and Infrastructure	Flooding can cause significant property destruction. Floods can disrupt normal daily activities due to the potential impact on schools, hospitals, and other public infrastructure. Transportation infrastructure can be damaged which could impact the freedom of movement or provision of utilities. Water sources can become contaminated. Water and sewer systems may be disrupted. Solid-waste collection and disposal may also be impacted, causing dangerous public health risks.
Impact on Environment	Rising waters from flooding impact the environment by spreading pollution, inundating water and wastewater treatment plants, and disrupting wildlife. Standing water following a flood event can facilitate the spread of vector-associated diseases.
Economic Conditions	Significant and repeated flooding can lower property value throughout the state, which can have a deleterious effect on the tax base. Furthermore, flooding drains response resources, which can be costly during a large flooding event for disaster reimbursement
Public Confidence in Governance	Ineffective flooding response can decrease the public's confidence in the ability to respond and govern. Multi-level government response requires direct actions that must be immediate and effective to maintain public confidence. Efficiency in response and recovery operations is critical in keeping public confidence high.

4.13.7 Jurisdictional Risk and Vulnerability

To help understand the risk and vulnerability to flooding of participating jurisdictions mapping from the FEMA NRI was run on a census tract level. As the NRI does not generate mapping for individual jurisdictions, census tract analysis is the closest analogue available to understand individual jurisdiction conditions.

Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating jurisdictions (as indicated by census tract) from floods:

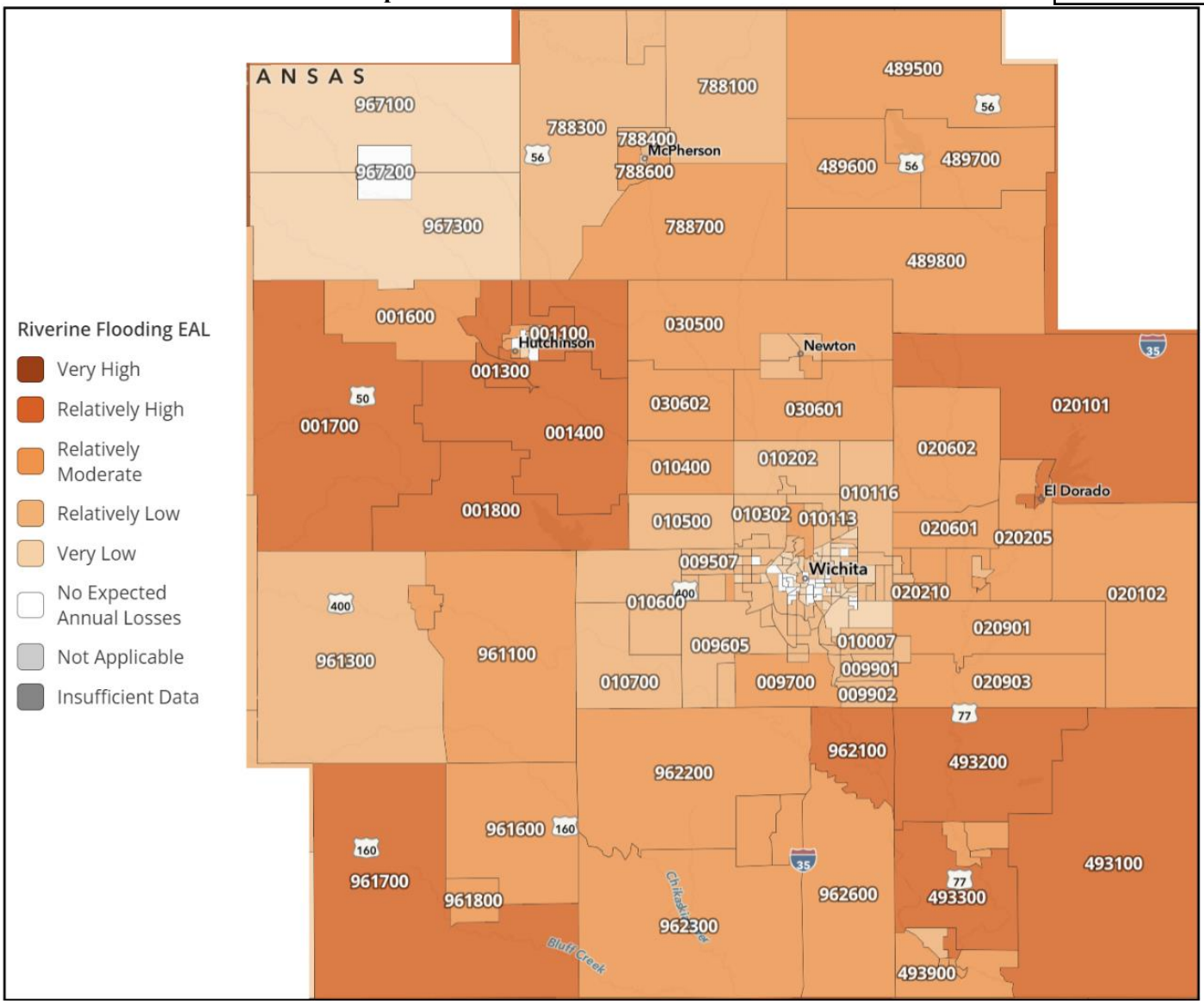
Map 77: FEMA NRI Jurisdictional Flood Risk



Source: FEMA NRI

As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for floods for participating jurisdictions (as indicated by census tract) within Kansas Region G:

Map 78: FEMA NRI Jurisdictional Flood EAL



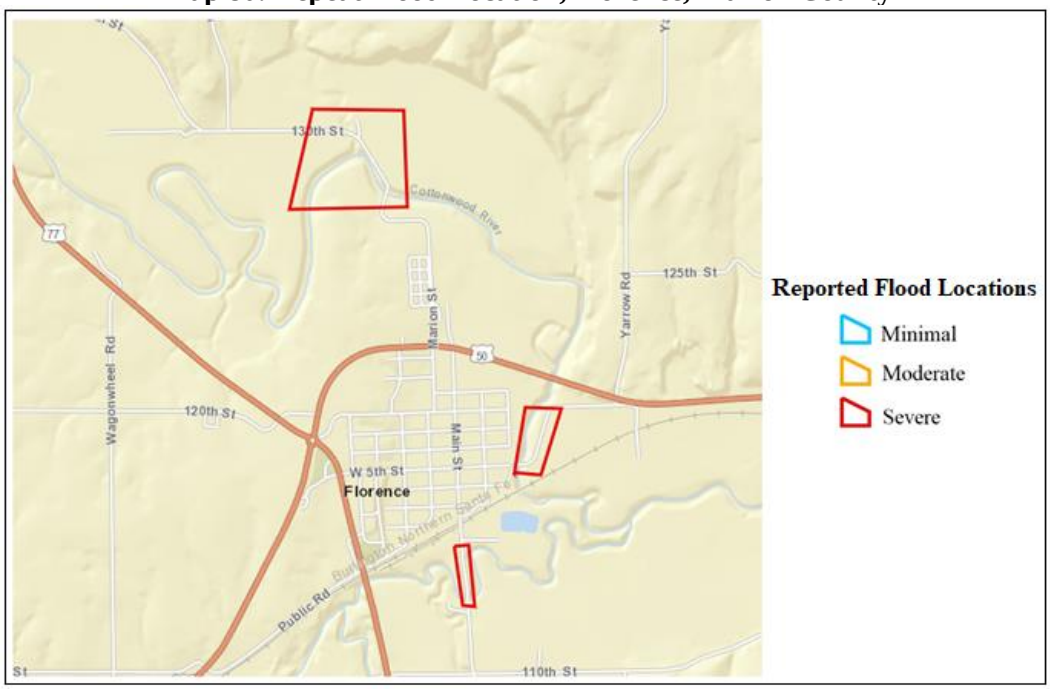
Source: FEMA NRI

Many local jurisdictions are subject to areas of repeat flooding. In an effort to identify these areas the KDA, in conjunction with the USACE Silver Jackets, has created a mapping system under the Recurring Flood Identification Project. This system allows for the local mapping of known flood areas within regional jurisdictions. Three classifications of flooding areas are used, minimal moderate and severe. The following map indicates identified repeat flood areas within the region.

Map 79: Repeat Flood Location, Andover, Butler County

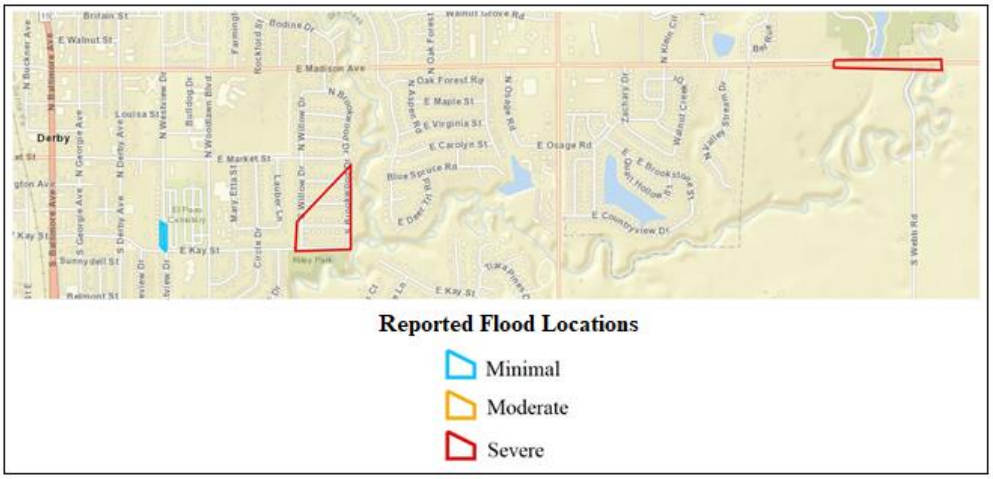
Source: USACE

Map 80: Repeat Flood Location, Florence, Marion County



Source: USACE

Map 81: Repeat Flood Locations, Derby, Sedgwick County



Source: USACE

Map 82: Repeat Flood Locations, Eastborough, Sedgwick County

Source: USACE

In addition, information was solicited from participating jurisdictions on low water crossings and roads or areas of concern for flooding. The following tables details provided information.

Table 96: Marion County Low Water Crossings, Roads, and Areas of Concern, Flooding

County	Road or Area	Location
Marion	20th	Quail Creek – Sunflower
Marion	60th	Limestone – Mustang
Marion	70th	Chisholm Trail – Diamond
Marion	80th	Diamond – Eagle
Marion	90th	Falcon – Goldenrod
Marion	140th	Upland – Hwy 77
Marion	160th	Indigo – Jade
Marion	190th	Quail Creek – Remington
Marion	250th	Upland – Ulysses
Marion	260th	Old Mill – Pawnee
Marion	290th	Old Mill – Pawnee
Marion	330th	Eagle – Falcon
Marion	Bison	300th – 310th
Marion	Bluestem	230th – 235th
Marion	Diamond	70th – 80th

Table 96: Marion County Low Water Crossings, Roads, and Areas of Concern, Floodi

County	Road or Area	Location
Marion	Old Mill	150th – 160th
Marion	Kanza	150th – 175th
Marion	Lakeshore Drive	Inlet/Outlet
Marion	Nighthawk	110th – 130th and 170th – 190th
Marion	Quail Creek	170th – 180th and 290th – 300th
Marion	Remington	10th – 20th and 220th – 240th
Marion	Sunflower	160th – 180th
Marion	Timber	130th – 140th and 340th – 350th

Source: Marion County

Table 97: Reno County Areas of Concern, Flooding

County	Road or Area	Location
Reno	-	South of Buhler
Reno	-	West of Buhler
Reno	-	North and west of Hutchinson along the Cow Creek
Reno	-	West of the Arkansas River

Source: Reno County

4.13.8 National Flood Insurance Program and Community Rating System Communities

The NFIP is a federal program, managed by FEMA, which exists to provide flood insurance for property owners in participating communities, to improve floodplain management practices, and to develop maps of flood hazard areas. The following table presents NFIP participating communities.

Table 98: Kansas Region G NFIP Communities

Jurisdiction	Initial Flood Hazard Boundary Map Identified	Initial Flood Insurance Rate Map Identified	Current Effective Map Date
Butler County			
Butler County	2/21/1978	3/2/1981	1/22/2020
City of Andover	8/6/1976	12/4/1986	6/2/2009
City of Augusta	2/1/1974	8/15/1980	1/22/2020
City of Cassoday	-	6/4/1980	6/2/2009
City of Douglass	7/18/1975	6/2/2009	6/2/2009
City of El Dorado	5/10/1974	3/5/1976	1/22/2020
City of Elbing		6/2/2009	(NSFHA)
City of Leon	3/26/1976	6/2/2009	6/2/2009
City of Potwin	9/26/1975	6/2/2009	6/2/2009
City of Rose Hill	8/8/1975	6/2/2009	6/2/2009
City of Towanda	8/8/1975	6/2/2009	6/2/2009
Cowley County			
Cowley County	7/19/1977	8/5/1991	10/19/2010
Arkansas City	11/23/1973	5/15/1985	10/19/2010
City of Cambridge	-	10/19/2010	10/19/10(M)
City of Dexter	7/25/1975	10/19/2010	10/19/10(M)
City of Parkerfield	-	10/19/2010	10/19/2010
City of Udall	-	10/19/2010	10/19/10(M)
City of Winfield	1/25/1974	3/16/1981	10/19/2010
Harper County			
Harper County	7/1/1980	2/1/2013	2/1/13(L)
City of Anthony	6/28/1974	2/1/2013	2/1/2013
City of Attica	6/28/1974	-	(NSFHA)

Table 98: Kansas Region G NFIP Communities

Jurisdiction	Initial Flood Hazard Boundary Map Identified	Initial Flood Insurance Rate Map Identified	Current Effective Map Date
City of Harper	8/16/1974	10/23/1979	10/23/79(M)
Harvey County			
Harvey County	3/7/1978	8/15/1983	8/4/2014
City of Burrton	3/15/1974	4/22/1977	10/6/10(M)
City of Halstead	6/7/1974	9/1/1978	10/6/2010
City of Hesston	6/28/1974	11/1/1979	10/6/2010
City of Newton	2/1/1974	12/5/1989	10/6/2010
City of North Newton	11/5/1976	6/15/1979	10/6/2010
City of Sedgwick	6/7/1974	9/15/1978	8/4/2014
Kingman County			
Kingman County	10/18/1977	2/1/1990	2/1/90(L)
City of Kingman	2/15/1974	6/18/1980	6/18/1980
Marion County			
Marion County	8/22/1978	3/1/2005	7/19/2018
City of Burns	3/26/1976	3/17/2011	3/17/11(M)
City of Durham	1/3/1975	5/15/1986	3/17/11(M)
City of Florence	8/6/1976	2/4/1987	3/17/2011
City of Goessel	11/22/1974	2/1/2008	3/17/11(M)
City of Hillsboro	9/26/1975	3/17/2011	3/17/11(M)
City of Lehigh	-	3/17/2011	(NSFHA)
City of Marion	1/25/1974	12/4/1979	3/17/2011
City of Peabody	6/28/1974	11/19/1986	3/17/2011
McPherson County			
McPherson County	6/28/1977	4/4/1983	1/16/2009
City of Canton	8/30/1974	7/01/1988	5/03/2010
City of Galva	8/15/1975	11/17/1982	1/16/2009
City of Inman	-	1/16/2009	(NSFHA)
City of Lindsborg	12/17/1973	5/15/1978	1/16/2009
City of Marquette	12/17/1973	8/1/1978	1/16/2009
City of McPherson	3/15/1974	3/16/1983	1/16/2009
City of Moundridge	3/8/1974	12/15/1982	1/16/2009
Reno County			
Reno County	8/16/1977	9/28/1990	1/29/2021
City of Abbyville	-	1/6/2010	(NSFHA)
City of Arlington	9/26/1975	9/28/1990	1/6/2010
City of Buhler	7/25/1975	7/19/2000	1/6/10(M)
City of Haven	-	9/28/1990	1/6/2010
City of The Highlands	-	9/28/1990	(NSFHA)
City of Hutchinson	6/28/1974	9/5/1978	1/29/2021
City of Langdon	-	1/6/2010	(NSFHA)
City of Nickerson	3/8/1974	1/3/1979	1/29/2021
City of Partridge	12/17/1976	9/28/1990	(NSFHA)
City of Plevna	-	1/6/2010	(NSFHA)
City of Pretty Prairie	8/13/1976	9/28/1990	1/6/2010
City of South Hutchinson	7/25/1975	9/28/1990	1/29/2021
City of Sylvia	-	1/6/2010	1/6/10(M)
City of the Highlands	-	9/28/1990	(NSFHA)
Willowbrook	12/13/1974	8/1/1986	1/29/2021

Table 98: Kansas Region G NFIP Communities

Jurisdiction	Initial Flood Hazard Boundary Map Identified	Initial Flood Insurance Rate Map Identified	Current Effective Map Date
Rice County			
Rice County	5/10/1977	7/1/1987	11/17/2022
City of Alden	12/27/1974	-	(NSFHA)
City of Bushton	11/22/1974	-	11/17/2022(M)
City of Chase	3/8/1974	9/18/1985	11/17/2022(M)
City of Little River	11/22/1974	3/1/1987	11/17/2022
City of Lyons	2/15/1974	1/1/1987	11/17/2022
City of Raymond	12/27/1974	6/1/1987	11/17/2022(M)
City of Sterling	3/8/1974	8/1/1978	11/17/2022
Sedgwick County			
Sedgwick County	8/2/1974	6/3/1986	12/22/2016
City of Andale	8/16/1974	2/2/2007	12/22/2016
City of Bel Aire	3/18/1985	3/18/1987	12/22/2016
City of Bentley	-	2/2/2007	(NSFHA)
City of Cheney	3/26/1976	2/2/2007	12/22/2016
City of Clearwater	9/5/1975	8/15/1980	12/22/2016
City of Colwich	9/26/1975	7/11/1978	12/22/2016
City of Derby	6/28/1974	10/15/1981	12/22/2016
City of Eastborough	9/19/1975	2/2/2007	12/22/2016
City of Garden Plain	8/15/1975	9/18/1985	12/22/2016
City of Goddard	7/16/1976	2/2/2007	12/22/2016
City of Haysville	6/28/1974	8/17/1981	12/22/2016
City of Kechi	4/23/1976	8/15/1980	12/22/2016
City of Maize	10/29/1976	2/2/2007	12/22/2016
City of Mount Hope	10/18/1974	2/2/2007	12/22/2016
City of Park City	-	11/19/1986	12/22/2016
City of Valley Center	6/28/1974	1/14/1977	12/22/2016
City of Viola	-	2/2/2007	12/22/2016
City of Wichita	12/27/1974	5/15/1986	12/22/2016
Sumner County			
Sumner County	6/10/1977	4/16/1990	11/18/2009
City of Argonia	-	4/16/1990	11/18/2009
City of Belle Plaine	3/26/1976	7/17/1978	11/18/2009
City of Caldwell	9/19/1975	4/16/1990	11/18/2009
City of Conway Springs	-	4/16/1990	11/18/2009
City of Geuda Springs	9/12/1975	11/18/2009	11/18/2009
City of Milan	-	4/16/1990	11/18/2009
City of Mulvane	6/28/1974	9/29/1978	11/18/2009
City of Oxford	8/8/1975	4/16/1990	11/18/2009
City of South Haven	9/19/1975	4/16/1990	11/18/2009
City of Wellington	2/15/1974	4/16/1990	11/18/2009

Notes: NSFHA: No Special Flood Hazard Area - All Zone C
(L): Original FIRM by letter - All Zone A, C and X
(M): No elevation determined - All Zone A, C and X

The CRS is a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the NFIP. In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts that address the three goals of the program:

- Reduce and avoid flood damage to insurable property
- Strengthen and support the insurance aspects of the National Flood Insurance Program
- Foster comprehensive floodplain management•

The following Region G jurisdictions are currently participating in the CRS:

Table 99: Kansas Region G CRS Communities

Jurisdiction	County	CRS Entry Date	Current Class	SFHA Discount
Anthony	Harper	5/1/2017	8	10%
Bel Aire	Sedgwick	5/1/2014	9	5%
Butler County	Butler	10/01/2013	7	15%
Derby	Sedgwick	10/01/2012	7	15%
Florence	Marion	05/01/2015	9	5%
Galva	McPherson	05/01/2014	9	5%
Harvey County	Harvey	05/01/2012	10	-
Haysville	Sedgwick	10/01/2013	8	10%
Lindsborg	McPherson	10/01/1992	9	5%
Lyons	Rice	05/01/2012	8	10%
McPherson (city)	McPherson	10/01/2021	8	10%
Moundridge	McPherson	04/01/2022	9	5%
Newton	Harvey	05/01/2015	8	10%
Valley Center	Sedgwick	05/01/2013	7	15%

Source: FEMA

4.13.9 FEMA Flood Policy and Loss Data

Kansas Region G flood policy information was sourced from FEMA's Flood Insurance Data and Analytics. The number of flood insurance policies in effect may not include all structures at risk of flooding, and it likely that some properties are under-insured. The flood insurance purchase requirement is for flood insurance in the amount of federally backed mortgages, not the entire value of the structure. Additionally, contents coverage is not required. The following table shows the details of NFIP policy statistics for Kansas Region G:

Table 100: Kansas Region G NFIP Coverage

Jurisdiction	Number of Policies in Force	Total Coverage
Butler County		
Butler County	82	$17,454,000
Andover	14	$3,186,000
Augusta	35	$7,156,600
Douglass	1	$210,000
El Dorado	70	$8,987,300
Potwin	1	$280,000
Rose Hill	1	$139,200
Unknown	5	$886,000
Cowley County		
Cowley County	33	$4,434,100
Arkansas City	27	$4,574,000
Dexter	1	$50,000
Unknown	3	$582,000
Winfield	15	$5,155,000
Harper County		
Harper County	5	$827,600
Anthony	1	$71,500
Unknown	1	$80,000

Table 100: Kansas Region G NFIP Coverage

Jurisdiction	Number of Policies in Force	Total Coverage
Harvey County		
Harvey County	65	$14,192,300
Halstead	3	$735,000
Hesston	10	$2,127,100
Newton	87	$12,848,100
North Newton	4	$1,120,000
Sedgwick	20	$4,063,000
Unknown	2	$406,000
Kingman County		
Kingman County	8	$1,239,800
Kingman	31	$5,933,800
Unknown	1	$125,000
Marion County		
Marion County	14	$1,665,000
Goessel	2	$58,000
Hillsboro	3	$427,600
Peabody	6	$374,900
McPherson County		
McPherson County	43	$6,729,000
Galva	3	$11,000
Lindsborg	19	$5,130,200
McPherson (City)	46	$7,308,900
Moundridge	5	$688,000
Unknown	4	$568,000
Reno County		
Reno County	94	$16,606,300
Arlington	5	$431,800
Buhler	6	$696,600
Haven	1	$350,000
Hutchinson	67	$11,610,900
Nickerson	12	$1,077,500
Pretty Prairie	14	$922,200
South Hutchinson	35	$6,747,000
Unknown	10	$2,101,000
Willowbrook	2	$700,000
Rice County		
Rice County	26	$3,696,200
Little River	1	$86,600
Lyons	5	$328,700
Raymond	1	$350,000
Sterling	24	$2,635,500
Unknown	1	$250,000
Sedgwick County		
Sedgwick County	198	$41,214,400
Andale	1	$175,000
Bel Aire	7	$1,730,000
Bentley	1	$210,000
Clearwate	1	$58,000
Colwich	6	$1,389,300

Table 100: Kansas Region G NFIP Coverage

Jurisdiction	Number of Policies in Force	Total Coverage
Derby	99	$24,996,400
Garden Plain	5	$786,500
Goddard	2	$378,000
Haysville	23	$5,148,400
Maize	10	$2,672,000
Mount Hope	1	$280,000
Mulvane	30	$5,221,100
Park City	6	$1,890,000
Unknown	21	$3,401,000
Valley Center	52	$13,226,000
Wichita	741	$186,260,400
Sumner County		
Sumner County	68	$10,234,900
Argonia	1	$100,000
Belle Plaine	2	$360,000
Mulvane	53	$9,459,500
Unknown	1	$175,000
Wellington	25	$3,261,800

Source: FEMA Flood Insurance Data and Analytics

The following table details the change in the number of NFIP coverage from 2013 to 2023 for Kansas Region G:

Table 101: Kansas Region G NFIP Coverage Changes

	2013	2018	2023	Change 2013 - 2023
Number of Policies	4,073	2,718	2,329	(-1,744)
Amount of Coverage	$631,047,300	$538,934,000	$481,042,000	(-$150,005,300)

Source: FEMA

4.13.10 Repetitive Loss Structures

A high priority for Kansas Region G is the mitigaion of, and/or the reduction of losses to, Repetitive Loss (RL) and Severe Repetitive Loss (SRL) structures. The NFIP defines a RL property as:

- Any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period, since 1978. At least two of the claims must be more than 10 days apart.

The definition of severe repetitive loss as applied to this program was established in section 1361A of the National Flood Insurance Act, as amended, 42 U.S.C. 4102a. An SRL property is defined as a residential property that is covered under an NFIP flood insurance policy and:

- That has at least four NFIP claim payments (including building and contents) over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or
- For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

For both of the above, at least two of the referenced claims must have occurred within any ten-year period and must be greater than ten days apart.

The following table details information concerning RL identified properties in Kansas Region G:

Table 102: Kansas Region G RL Properties

County	Jurisdiction	NFIP Insured	Total Losses	Total Paid
Butler	Augusta	No	3	$15,814.89
	Andover	No	4	$96,243.00
	Andover	No	6	$58,594.98
	Andover	No	4	$54,257.11
	Andover	Yes	7	$289,011.92
	Andover	Yes	4	$180,673.18
	Andover	Yes	3	$156,829.69
	Andover	No	3	$82,414.85
	Andover	No	2	$84,737.16
	Andover	Yes	3	$53,817.22
	Andover	No	3	$94,051.33
	Andover	Yes	2	$55,190.92
	Andover	Yes	3	$151,492.41
	Andover	No	2	$58,430.54
	Andover	No	2	$29,708.25
	Augusta	No	2	$23,520.50
	Augusta	No	3	$22,574.73
	Augusta	Yes	2	$40,483.96
	El Dorado	No	3	$35,236.84
	El Dorado	No	3	$6,582.54
	El Dorado	No	3	$265,845.87
	El Dorado	No	3	$44,762.73
	Towanda	Yes	2	$6,037.62
Cowley	Arkansas City	No	2	$60,754.14
	Arkansas City	No	2	$32,126.69
	Pawnee Rock	No	2	$11,693.98
	Winfield	No	2	$14,663.45
	Winfield	No	2	$31,219.95
	Winfield	No	2	$8,505.80
	Winfield	No	2	$30,000.00
	Winfield	No	4	$463,620.24
	Winfield	No	2	$10,495.18
	Winfield	No	3	$394,108.04
Harvey	Burrton	Yes	2	$10,752.77
	Halstead	No	2	$19,413.54
	Newton	No	2	$3,677.02
	Newton	No	2	$3,042.04
	Sedgwick	Yes	2	$22,234.26
	Sedgwick	No	3	$26,895.25
	Sedgwick	No	2	$10,441.87
	Sedgwick	No	2	$50,160.20
	Sedgwick	No	2	$27,210.02
	Sedgwick	No	2	$8,414.80
	Sedgwick	Yes	2	$12,999.85
Kingman	Kingman	Yes	2	$55,654.23
Marion	Peabody	Yes	2	$39,344.38
	Peabody	Yes	2	$18,547.42
McPherson	Lindsborg	No	2	$8,962.69

Table 102: Kansas Region G RL Properties

County	Jurisdiction	NFIP Insured	Total Losses	Total Paid
	McPherson (City)	No	2	$22,982.80
	Moundridge	Yes	3	$7,366.64
Reno	Haven	No	3	$68,847.27
	Hutchinson	Yes	3	$25,833.12
	Hutchinson	No	4	$166,211.64
	Hutchinson	Yes	2	$68,810.76
	Hutchinson	Yes	3	$36,251.72
	Hutchinson	Yes	2	$16,305.53
Rice	Sterling	No	3	$48,674.16
	Sterling	Yes	2	$16,991.57
	Sterling	No	2	$16,274.23
Sedgwick	Clearwater	Sdf	2	$77,038.96
	Clearwater	No	3	$23,635.94
	Clearwater	No	3	$68,561.13
	Clearwater	Yes	2	$15,187.13
	Colwich	Yes	2	$49,263.39
	Derby	No	2	$3,772.50
	Derby	No	2	$18,262.32
	Haysville	No	2	$18,634.61
	Haysville	No	2	$10,450.90
	Peck	No	2	$29,493.53
	Peck	Yes	2	$13,060.89
	Valley Center	Yes	2	$32,933.26
	Valley Center	No	2	$16,644.60
	Valley Center	No	2	$9,907.59
	Valley Center	No	3	$120,985.02
	Valley Center	No	4	$70,684.12
	Valley Center	No	2	$104,042.36
	Viola	Yes	3	$50,939.88
	Viola	No	3	$133,913.27
	Wichita	No	3	$237,934.44
	Wichita	No	3	$41,690.13
	Wichita	No	2	$11,321.32
	Wichita	No	3	$174,582.93
	Wichita	No	2	$44,243.71
	Wichita	Yes	9	$235,336.63
	Wichita	No	3	$73,064.14
	Wichita	No	2	$13,316.78
	Wichita	No	2	$32,941.46
	Wichita	No	2	$5,339.97
	Wichita	No	4	$28,874.97
	Wichita	No	2	$18,416.46
	Wichita	No	6	$63,178.17
	Wichita	Yes	3	$29,557.95
	Wichita	No	3	$54,588.78
	Wichita	Yes	2	$8,858.47
	Wichita	No	2	$65,000.00

Table 102: Kansas Region G RL Properties

County	Jurisdiction	NFIP Insured	Total Losses	Total Paid
Sumner	Wichita	Yes	3	$192,894.22
	Wichita	No	2	$53,481.90
	Wichita	No	2	$46,241.79
	Wichita	Yes	3	$210,990.62
	Wichita	No	2	$39,982.01
	Wichita	Yes	2	$92,808.80
	Wichita	No	2	$23,981.23
	Wichita	Yes	3	$245,621.25
	Wichita	Yes	2	$57,927.66
	Wichita	No	2	$6,067.24
	Wichita	No	2	$8,408.06
	Wichita	No	2	$44,536.82
	Wichita	No	2	$8,158.50
	Wichita	No	2	$83,555.00
	Wichita	No	3	$2,041,380.67
	Wichita	No	2	$45,031.96
	Wichita	Yes	3	$63,383.04
	Wichita	Yes	2	$40,945.72
	Wichita	No	2	$31,998.62
	Wichita	No	2	$6,062.95
	Wichita	No	2	$88,900.19
	Wichita	No	2	$155,581.60
	Wichita	No	2	$37,156.11
	Wichita	Yes	2	$130,359.99
	Belle Plaine	No	3	$33,336.96
	Belle Plaine	No	3	$60,286.20
	Belle Plaine	Yes	5	$74,141.45
	Belle Plaine	No	3	$17,451.59
	Belle Plaine	Yes	3	$145,474.98
	Belle Plaine	Yes	2	$51,145.80
	Belle Plaine	Yes	2	$20,121.20
	Belle Plaine	No	3	$13,650.93
	Belle Plaine	No	2	$6,899.23
	Conway Springs	Yes	2	$43,527.10
	Mulvane	Yes	3	$59,036.27
	Mulvane	Yes	3	$37,257.15
	Mulvane	No	2	$7,314.24
	Mulvane	No	2	$65,857.31
	Mulvane	Yes	2	$99,787.20
	Mulvane	No	3	$13,364.34
	Mulvane	Yes	2	$38,959.66
	Mulvane	No	2	$98,766.02
	Mulvane	No	2	$47,256.90
	Mulvane	No	2	$4,659.18
	Mulvane	Yes	6	$151,188.67
	Mulvane	No	2	$53,686.97
	Mulvane	No	2	$13,233.67
	Mulvane	No	2	$102,103.56

Table 102: Kansas Region G RL Properties

County	Jurisdiction	NFIP Insured	Total Losses	Total Paid
	Mulvane	No	6	$79,597.09
	Wellington	No	2	$7,628.40

Source: KDEM

The following table details information concerning RL identified properties in Kansas Region G:

Table 103: Kansas Region G RL Properties

County	Jurisdiction	NFIP Insured	Total Losses	Total Paid
Butler	Andover	No	4	$96,243.00
	Andover	No	6	$58,594.98
	Andover	No	7	$289,011.92
Reno	Hutchinson	No	4	$166,211.64
Sedgwick	Derby	No	2	$3,772.50
	Wichita	No	9	$235,336.63
	Wichita	No	6	$63,178.17
	Wichita	no	3	$210,990.62
	Wichita	No	3	$2,041,380.67
	Wichita	No	2	$6,062.95
Sumner	Belle Plaine	No	5	$74,141.45
	Mulvane	No	6	$151,188.67

Source: KDEM

4.14 Severe Weather

4.14.1 Hazard Description

Severe Weather comprise the hazardous and damaging weather effects often found in violent storm fronts. They can occur together or separate, they are common and usually not hazardous, but on occasion they can pose a threat to life and property.

This plan defines Severe Weather as a combination of the following severe weather effects as defined by NOAA and the NWS:

- **Hail:** Precipitation in the form of irregular pellets or balls of ice more than 5 mm in diameter, falling from a cumulonimbus cloud.
- **Lightning:** A visible electrical discharge produced by a thunderstorm. The discharge may occur within or between clouds, between the cloud and air, between a cloud and the ground or between the ground and a cloud.
- **Thunderstorm Winds:** The same classification as high or strong winds but accompanies a thunderstorm. It is also referred to as a straight-line wind to differentiate from rotating or tornado associated wind. Additionally, these winds can rapidly create dust storms that severely impact visibility.

Severe Weather have been so consistent throughout modern history that much of the vulnerability is mitigated. However, this section is not concerned with everyday wind, lightning in the sky, or mild precipitation. This section is concerned with common storm elements when they behave such that they pose a threat to property and life.

4.14.2 – Location and Extent

Severe Weather can rapidly descend on an area, but in many cases are predictable. Most weather forecasts focus on more than just temperature but on quickly changing conditions that may lead to the onset of severe storms. All of Kansas Region G is susceptible to Severe Weather.

The NWS classifies thunderstorms, often the generator of hail, lightning and high winds, using the following categories.

- **Marginal:** Isolated Severe Weather, limited in duration and/or coverage and/or intensity
- **Slight:** Scattered severe storms possible, short-lived and/or not widespread, isolated intense storms possible
- **Enhanced:** Numerous severe storms possible, more persistent and/or widespread, a few intense
- **Moderate:** Widespread severe storms likely, long-lived, widespread and intense
- **High:** Widespread severe storms expected, long-lived, very widespread and particularly intense

In the United States, hail causes billions of dollars in damage to property each year. Vehicles, roofs of buildings and homes, and landscaping are most commonly damaged by hail. Hail has been known to cause injury and the occasional fatality to humans, often associated with traffic accidents.

Based on information provided by the Tornado and Storm Research Organization, the following table describes typical damage impacts of the various sizes of hail.

Table 104: Tornado and Storm Research Organization Hail Damage Descriptions

Intensity Category	Diameter (inches)	Typical Damage Impacts
Hard Hail	0.2-0.4	No damage
Potentially Damaging	0.4-0.6	Slight general damage to plants, crops
Significant	0.6-0.8	Significant damage to crop and vegetation
Severe	0.8-1.2	Severe damage to crops, damage to glass and plastic, paint and wood scored
Severe	1.2-1.6	Widespread glass damage, vehicle bodywork damage

Table 104: Tornado and Storm Research Organization Hail Damage Descriptions

Intensity Category	Diameter (inches)	Typical Damage Impacts
Destructive	1.6-2.0	Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
Destructive	2.0-2.4	Bodywork of grounded aircraft dented, brick walls pitted
Destructive	2.4-3.0	Severe roof damage, risk of serious injuries
Super Hailstorms	3.6-3.9	Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open
Super Hailstorms	4.0+	Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open

Source: Tornado and Storm Research Organization

A recent report by the Insurance Information Institute says lightning strikes caused $1,300,000,000 in damage across the United States in 2021. There is currently no scale to indicate the severity of a lightning strike, but data from NOAA indicates that there approximately 25,000,000 cloud-to-ground lightning strikes per year in the United States.

To measure wind speed and its correlating potential for damage, experts use the Beaufort scale as shown below.

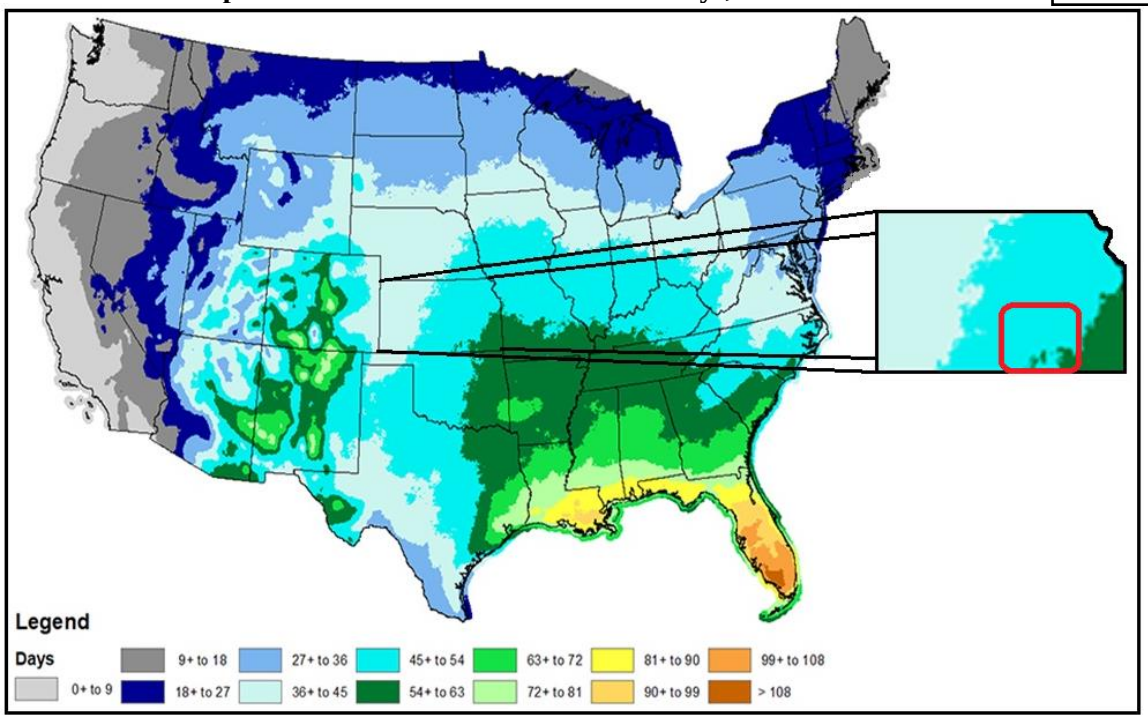
Table 105: Beaufort Scale

Beaufort Number	Wind Speed (mph)	Effects on Land
0	Under 1	Calm, smoke rises vertically
1	1-3	Smoke drift indicates wind direction, vanes do not move
2	4-7	Wind felt on face, leaves rustle, vanes begin to move
3	8-12	Leaves, small twigs in constant motion. Light flags extended.
4	13-18	Dust, leaves and loose paper raised up; small branches move
5	19-24	Small trees begin to sway
6	25-31	Large branches of trees in motion, whistling heard in wires
7	32-38	While trees in motion, resistance felt in walking against the wind
8	39-46	Twigs and small branches broken off trees
9	47-54	Slight structural damage occurs, slate blown from roofs
10	55-63	Seldom experienced on land, trees broken, structural damage occurs
11	64-72	Very rarely experienced on land, usually with widespread damage
12	73 or higher	Violence and destruction

Source: NOAA

The widespread and frequent nature of thunderstorms makes hail, lightning, and high wind a relatively common occurrence for Kansas Region G. The following map, from NOAA, indicates annual mean thunderstorm days from 1993 to 2018.

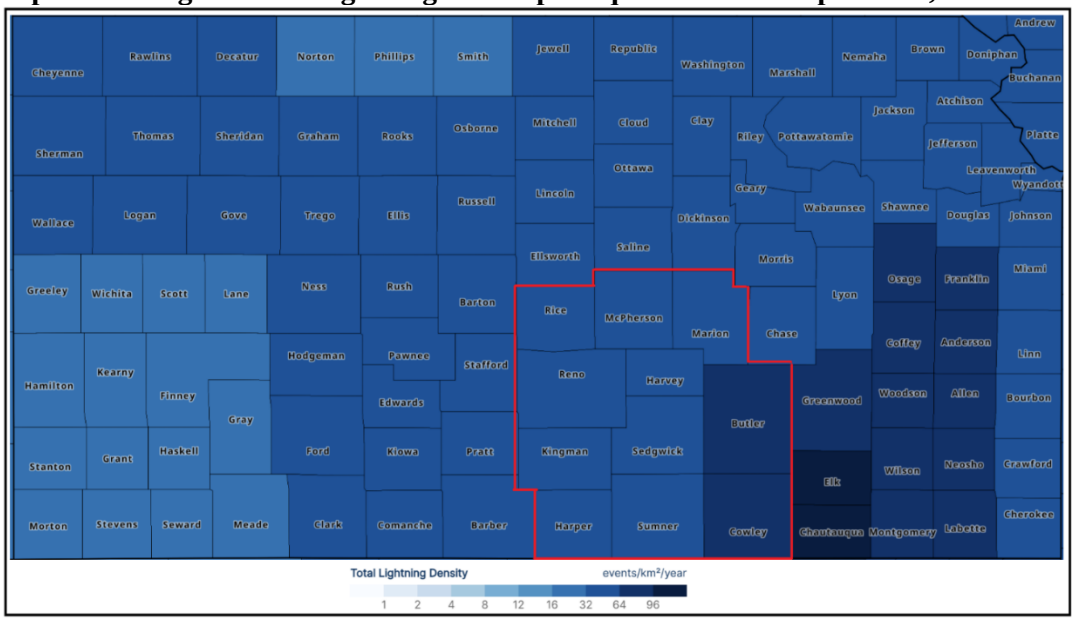
Map 83: Annual Mean Thunderstorm Days, 1993-2018



Source: NOAA

The following map, from Vaisala, indicates the average annual light events per square kilometer per year for Kansas Region G.

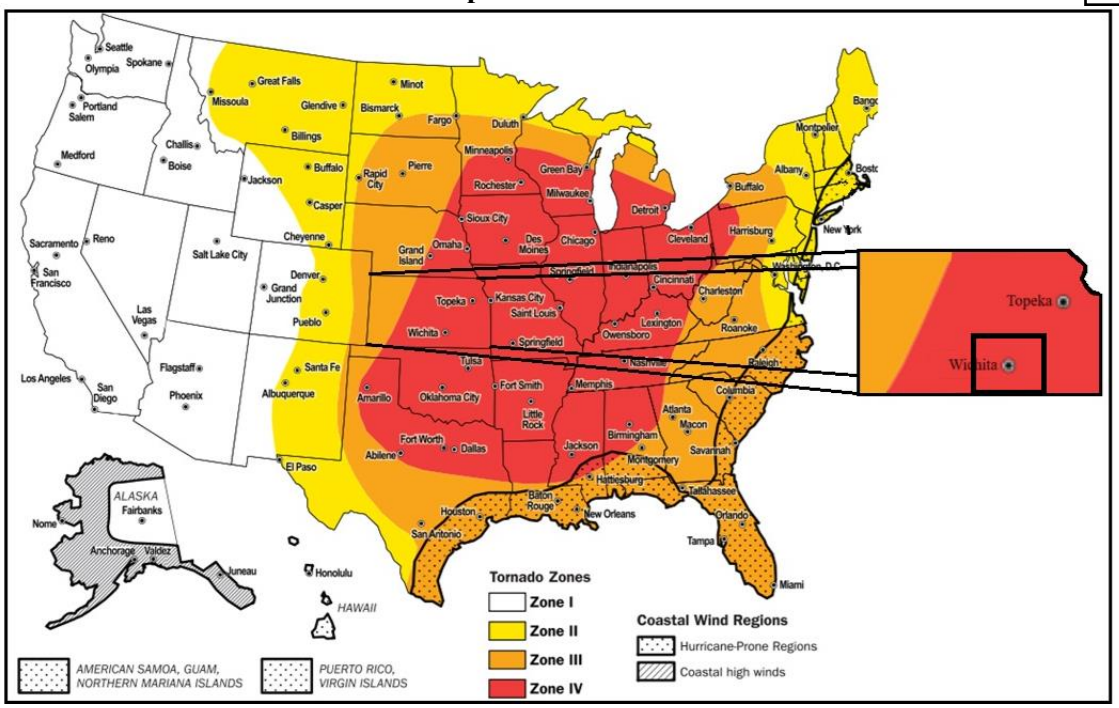
Map 84: Average Annual Lightning Events per Square Kilometer per Year, 2016 - 2022



Source: Vaisala

The following maps from FEMA indicate the highest possible expected wind speeds for Kansas Region G.

Map 85: Wind Zones



Source: FEMA

4.14.3 Previous Occurrences

Historical events of significant magnitude or impact can result in a Presidential Disaster Declaration. The following table details Presidential Disaster Declarations related to severe storms.

Table 106: Kansas Region G Presidentially Declared Disasters

Designation	Declaration Date	Incident Type	Counties	Assistance
DR-4640-KS	03/22/2022	Severe Storms and Straight-Line Winds	Sumner	$12,159,785
DR-4499-KS	08/14/2019	Severe Storms, Straight-Line Winds, Flooding, Tornadoes, Landslides, and Mudslides	Butler, Cowley, Harper, Harvey, Kingman, Marion, McPherson, Reno, Rice, and Sumner	$51,157,548
DR-4417-KS	03/20/2019	Severe Storms, Straight-Line Winds, and Flooding	Cowley, Kingman, Reno, and Sumner	$3,509,374

Source: FEMA

In addition to the Presidentially Declared Disasters, the following table presents NCEI identified Severe Weather events and the resulting damage totals in Kansas Region G from 2009 to 2023:

Table 107: NCEI Kansas Region G Severe WeatherEvents

County	Event Type	Number of Days with Events	Property Damage	Deaths and Injuries
Butler	Hail	109	$11,000,000	0
	Lightning	1	$50,000	0
	Winds	115	31,427,000	5
Cowley	Hail	79	$10,850	0
	Lightning	4	$200,000	0
	Winds	80	$2,080,000	2
Harper	Hail	41	$300,000	0
	Lightning	0	$0	0
	Winds	36	$116,750	0

Table 107: NCEI Kansas Region G Severe WeatherEvents

County	Event Type	Number of Days with Events	Property Damage	Deaths and Injuries
Harvey	Hail	46	$30,000	0
	Lightning	0	$0	0
	Winds	49	$892,500	0
Kingman	Hail	56	$80,000	0
	Lightning	2	$180,000	0
	Winds	57	$506,500	2
Marion	Hail	54	$70,500	0
	Lightning	2	$8,000	0
	Winds	45	$727,650	11
McPherson	Hail	63	$800,000	0
	Lightning	0	$0	0
	Winds	71	$2,826,000	1
Reno	Hail	79	$305,000	0
	Lightning	2	$0	1
	Winds	86	$2,120,000	6
Rice	Hail	52	$886,000	0
	Lightning	0	$0	0
	Winds	51	$252,200	0
Sedgwick	Hail	114	$164,578,200	20
	Lightning	11	$430,000	3
	Winds	118	$3,304,000	5
Sumner	Hail	68	$160,000	0
	Lightning	0	$0	0
	Winds	63	$1,300,000	0

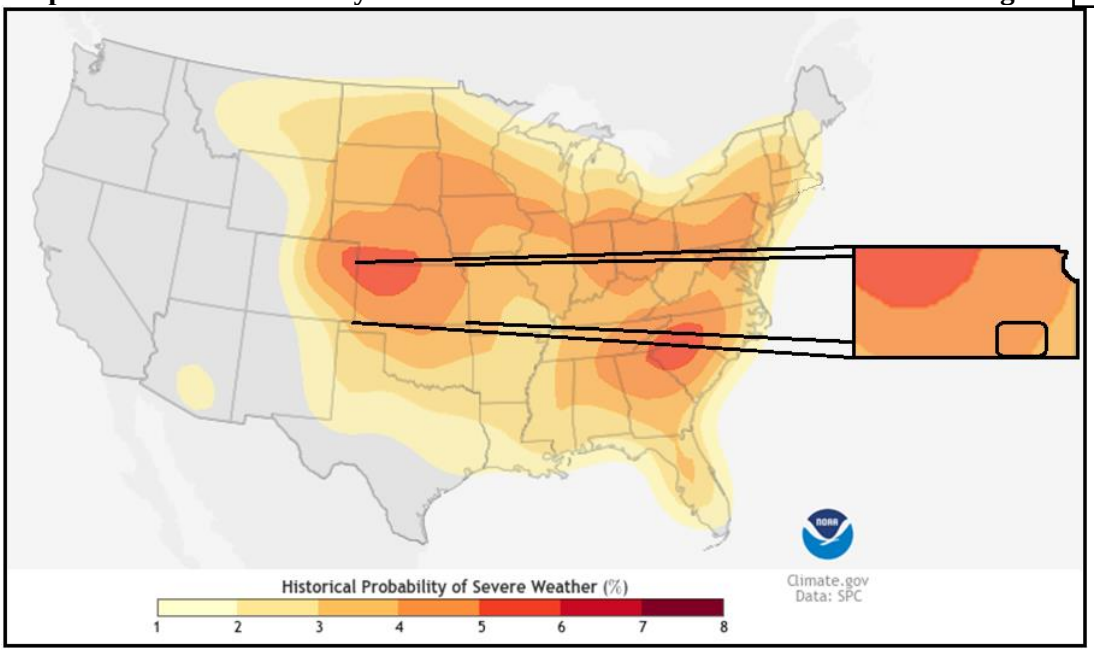
Source: NCEI

It is worth noting that damage estimates indicated by the NCEI are often artificially low. This underreporting is a result of the way the events are reported to the NCEI, often by the local and/or NWS office. When reporting an event oftentimes the NWS office does not have access to the actual damage assessment resulting from that event. As such, the report often details a very low amount or zero-dollar amount for damages. Additionally, deaths and injuries may be underreported as they may be a result of a concurrent event, such as a person driving unsafely during heavy rain and passing away.

4.14.4 Probability of Future Events

Predicting the probability of Severe Weather occurrences is tremendously challenging due to the large number of factors involved and the random nature of formation. Data from NOAA indicates that Kansas Region G can expect between 27 - 45 severe weather events per year. Additionally, the following map from NOAA provides a snapshot for the probability of a severe weather event on a summer day.

Map 86: Historic Probability of a Severe Weather Summer Event In Kansas Region G



Source: NOAA

Based on historical occurrences, Kansas Region G will continue to experience Severe Weather events on an annual basis. The following tables, using data from the NCEI, indicate the yearly probability of a Severe Weather component event, the number of deaths or injuries, and estimated property damage for each county in Kansas Region G.

Table 108: Kansas Region G NCEI Hail Event Probability Summary

County	Days with Event	Average Events per Year	Deaths / Injuries	Average Deaths / Injuries per Year	Property Damage	Average Property Damage per Year
Butler	109	7	0	0	$11,000,000	$733,333
Cowley	79	5	0	0	$10,850	$723
Harper	41	3	0	0	$300,000	$20,000
Harvey	46	3	0	0	$30,000	$2,000
Kingman	56	4	0	0	$80,000	$5,333
Marion	54	4	0	0	$70,500	$4,700
McPherson	63	4	0	0	$800,000	$53,333
Reno	79	5	0	0	$305,000	$20,333
Rice	52	3	0	0	$886,000	$59,067
Sedgwick	114	8	20	1	$164,578,200	$10,971,880
Sumner	68	5	0	0	$160,000	$10,667

Source: NCEI

Table 109: Kansas Region G NCEI Lightning Event Probability Summary

County	Days with Event	Average Events per Year	Deaths / Injuries	Average Deaths / Injuries per Year	Property Damage	Average Property Damage per Year
Butler	1	0	0	0	$50,000	$3,333
Cowley	4	0	0	0	$200,000	$13,333
Harper	0	0	0	0	$0	$0
Harvey	0	0	0	0	$0	$0
Kingman	2	0	0	0	$180,000	$12,000
Marion	2	0	0	0	$8,000	$533
McPherson	0	0	0	0	$0	$0

Table 109: Kansas Region G NCEI Lightning Event Probability Summary

County	Days with Event	Average Events per Year	Deaths / Injuries	Average Deaths / Injuries per Year	Property Damage	Average Property Damage per Year
Reno	2	0	1	<1	$0	$0
Rice	0	0	0	0	$0	$0
Sedgwick	11	1	3	<1	$430,000	$28,667
Sumner	0	0	0	0	$0	$0

Source: NCEI

Table 1110: Kansas Region G NCEI Strong Wind Event Probability Summary

County	Days with Event	Average Events per Year	Deaths / Injuries	Average Deaths / Injuries per Year	Property Damage	Average Property Damage per Year
Butler	115	8	5	<1	31,427,000	$2,095,133
Cowley	80	5	2	<1	$2,080,000	$138,667
Harper	36	2	0	0	$116,750	$7,783
Harvey	49	3	0	0	$892,500	$59,500
Kingman	57	4	2	<1	$506,500	$33,767
Marion	45	3	11	1	$727,650	$48,510
McPherson	71	5	1	<1	$2,826,000	$188,400
Reno	86	6	6	<1	$2,120,000	$141,333
Rice	51	3	0	0	$252,200	$16,813
Sedgwick	118	8	5	<1	$3,304,000	$220,267
Sumner	63	4	0	0	$1,300,000	$86,667

Source: NCEI

4.14.5 Projected Changes in Location, Intensity, Frequency, and Duration

Climate change can have several impacts on Severe Weather, although the precise details can vary depending on regional climate patterns and other factors. In general, it is believed that climate change can alter the timing and seasonality of Severe Weather. In some cases, this may mean more severe weather events occurring earlier or later in the year.

Climate change can lead to increased temperatures and moisture levels in the atmosphere, which can provide favorable conditions for the development of Severe Weather. This can result in a higher frequency of Severe Weather events and an increase in their intensity. As a result of increased temperatures, warmer air can hold more moisture, leading to increased rainfall during Severe Weather. This can elevate the risk of flash flooding, particularly in areas prone to heavy precipitation. Changes in atmospheric circulation patterns associated with climate change can lead to stronger winds. This can result in more powerful wind gusts, increasing the risk of wind damage and downed trees and power lines.

Climate change can influence the conditions necessary for hail formation. Warmer temperatures at the surface and greater instability in the atmosphere can contribute to larger and more damaging hailstones. Additionally, changes in atmospheric conditions can affect the frequency and distribution of lightning strikes. More lightning can increase the risk of wildfires in dry regions.

It is important to note that while there is evidence linking climate change to changes in weather patterns that can influence Severe Weather, predicting specific events remains challenging. Climate models provide valuable insights into long-term trends, but individual severe weather events are influenced by a complex interplay of factors.

4.14.6 Vulnerability and Impact

Severe Weather can have a wide range of effects on people, often posing significant risks to life, property, and general well-being. In the absence of proper shelter, hail, lightning, and high winds can cause serious injury. In general, if potentially exposed persons take shelter in a solid, well-constructed structure protection from these Severe Weather components would be provided. However, old or poorly constructed facilities may be more prone to damage, potentially

increasing the impact on economically disadvantaged populations. Some of the potential effects of Seve people may include:

- Death and Injury: severe weather produces lightning and string winds driving debris. Both of these elements can cause injuries or fatalities.
- Power Outages: Lightning strikes, strong winds, and falling trees can lead to power outages, disrupting daily life, and potentially affecting essential services, such as medical equipment and refrigeration.
- Mental Health Impact: Severe Weather can be frightening and stressful, leading to anxiety and post-traumatic stress disorder in some individuals. The emotional toll of property damage and loss can also be significant.
- Displacement: People may need to evacuate their homes or be temporarily displaced due to storm damage, requiring emergency shelter and support.
- Economic Costs: Severe Weather result in economic costs, including repair and recovery expenses, insurance claims, and potential loss of income due to property damage or work disruptions.
- Public Safety Response: Severe Weather can strain public safety resources, including emergency services, law enforcement, and medical facilities.

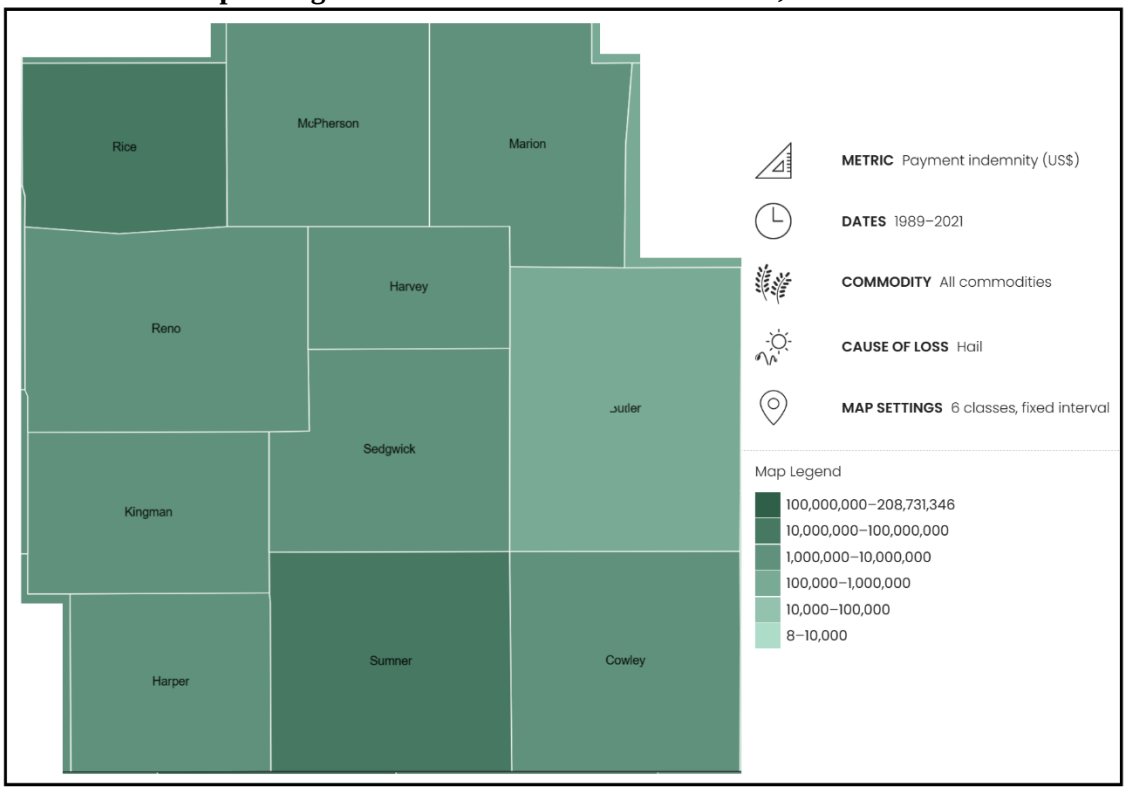
All facilities within Kansas Region G can be impacted by Severe Weather, including critical facilities. However, the location and construction of the facility will have a significant impact on the vulnerability. In general, older structures would be at higher risk of negative impacts. Some of the potential impacts include:

- Electrical Infrastructure Damage: Severe Weather can damage electrical infrastructure, including power lines, transformers, and substations. This can result in widespread power outages, affecting homes, businesses, hospitals, and other critical facilities.
- Communication Disruptions: severe weather can disrupt telecommunications infrastructure, including cell towers, data centers, and communication networks. This can impact emergency communication and coordination efforts.
- Transportation Disruptions: Heavy rain, strong winds, and flooding can damage roads, bridges, and transportation networks. This can lead to transportation disruptions, accidents, and delays, affecting the movement of goods and people.
- Airport Closures: Severe weather can force the closure of airports due to safety concerns, affecting air travel and cargo shipments.
- Water and Wastewater Systems: Severe storms can overwhelm water treatment plants and wastewater facilities, leading to contamination and water supply disruptions. Flooding can also damage water infrastructure.
- Critical Facilities: Hospitals, emergency response centers, and other critical facilities may be affected by power outages, flooding, and damage to infrastructure. This can impact the ability to provide essential services during and after the storm.
- Energy Generation: Severe weather can disrupt energy generation facilities, such as wind farms and solar installations, and damage conventional power plants. This can affect the availability of electricity.
- Safety Risks: Damage to infrastructure can pose safety risks to workers and the public. Fallen power lines, damaged buildings, and debris can be hazardous.

Severe Weather can pose various risks to the environment. These risks can have both short-term and long-term impacts on natural ecosystems. Severe Weather can produce heavy rainfall over a short period of time, leading to flash floods and riverine flooding. This can result in soil erosion, damage to aquatic habitats, and the displacement of aquatic organisms. Large hailstones can damage crops, vegetation, and natural habitats. Hail can strip leaves from trees and plants, reducing their ability to photosynthesize and grow. It can also damage wildlife habitats. Severe Weather often produce strong straight-line winds. These winds can uproot trees, damage forests, and disrupt animal habitats. They can also scatter debris and cause structural damage to buildings, which can lead to further environmental issues if hazardous materials are released. Lightning is a common occurrence during severe weather and can spark wildfires. These wildfires can have significant ecological impacts, including habitat destruction, loss of wildlife, and changes in the local ecosystem.

Hail events can cause significant agricultural impacts. The following map from the United States D Agriculture details total agricultural losses, by county, due to hail events from 1989 to 2021:

Map 87: Agricultural Losses Due to Hail Events, 1989 to 2021



Source: USDA

Severe Weather can pose various risks to government operations and facilities. These risks can have significant economic and operational consequences, and can include:

- Structural Damage: High winds, hail, and tornadoes associated with Severe Weather can cause significant damage to government buildings and infrastructure. This can result in costly repairs and disruptions to government operations.
- Power Outages: Severe Weather can lead to power outages by damaging electrical infrastructure such as power lines and substations. Government buildings may lose power, affecting critical operations and services.
- Flooding: Heavy rainfall during Severe Weather can lead to flooding, which can damage government buildings and disrupt operations. Flood damage may require extensive repairs and cleanup.
- Communication Disruptions: Lightning strikes can damage communication equipment, including telephone lines and computer systems. This can hinder communication between government agencies and the public.
- Transportation Disruptions: Severe Weather can make roads impassable due to flooding or fallen trees. This can impact the ability of government employees to commute to work and can disrupt the delivery of goods and services.
- Emergency Response: Severe Weather may require the activation of emergency response plans. This can strain resources and personnel, especially if the storms lead to widespread damage or evacuations.
- Loss of Records and Data: Flooding or equipment damage can result in the loss of important records and data stored in government buildings. This can have legal and operational implications.
- Budgetary Impact: The costs associated with repairing and restoring government buildings and infrastructure after Severe Weather can strain budgets.

Potentially Vulnerable Community Lifelines

Severe Weather can impact various community lifelines, critical systems and services that communities r functioning. Vulnerabilities arise due to the stress that severe weather conditions place on infrastructure, resources, and operational processes. As an overview, the May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report indicates the following loss values for community lifelines:

Table 111: Economic Impacts of Loss of Service Per Capita Per Day (in 2022 dollars)

Category	Loss
Loss of Electrical Service	$199
Loss of Communications/Information Technology Services	$141

Source: May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report

Severe Weather can have significant impacts on electrical utilities, leading to disruptions in power supply and potential damage to infrastructure. Severe Weather can affect electrical utilities in the following ways:

- Lightning Strikes: Lightning is a common occurrence during severe weather and poses a substantial risk to electrical infrastructure. Lightning strikes can damage power lines, transformers, substations, and other critical components, leading to power outages.
- Wind Damage: High winds associated with Severe Weather can cause trees, branches, and other debris to fall onto power lines. This can result in downed power lines, structural damage to utility poles, and disruptions in electrical service.
- Hailstorms: Severe Weather may produce hail, which can damage power lines, transformers, and other equipment. Hailstones can also lead to short circuits and insulation damage on electrical components.
- Power Surges: Lightning strikes, strong winds, and other storm-related events can lead to power surges in the electrical grid. These surges can damage electronic devices, appliances, and utility equipment connected to the power supply.

In order to reduce plan duplication, mapping concerning electrical generation plants, high capacity transmission lines, and electrical utility providers as well as utility repair and replacement cost estimation provides may be found in Section 4.9.6, maps 33 and 34 and Chart 15.

Communications systems within Kansas Region G may have an increased vulnerability to Severe Weather events. Of particular concern are 911 and dispatch systems. All jurisdictions are served by a 911 and dispatch system, providing direct dispatching for:

- Law Enforcement
- Emergency Medical Services
- Fire

Severe storms can disrupt this vital communications system, affecting reliability and functionality. Some of the key vulnerabilities include:

- Physical Infrastructure Damage: High winds, heavy rainfall, and other severe weather conditions can cause physical damage to communication infrastructure such as cell towers, antennas, cables, and data centers. This damage can result in network outages and disruptions.
- Power Outages: Severe storms often lead to power outages, which can affect the operation of communication networks. Without a stable power supply, cell towers, data centers, and other critical components may become non-functional, leading to service interruptions.
- Lightning Strikes: Lightning poses a threat to communication infrastructure. Direct strikes or induced surges can damage electronic equipment, leading to the need for repairs or replacements and causing downtime.
- Signal Interference: Severe storms can create electromagnetic interference that disrupts radio signals used in wireless communication. This interference can lead to poor signal quality, dropped calls, and slower data speeds.

- Loss of Backhaul Connectivity: Severe weather events can damage the backhaul infrastructure various communication nodes. This backbone infrastructure is crucial for transmitting data between local and regional networks, and any disruption can impact overall network performance.
- Communication Tower Instability: High winds and extreme weather conditions can compromise the stability of communication towers. If towers are not designed to withstand severe weather, they may collapse, leading to network outages.
- Network Congestion: In the event of a disaster, communication networks may experience a surge in usage as people attempt to contact emergency services, friends, and family. This increased demand can lead to network congestion, making it difficult for users to connect.

The cost to repair communications networks can vary widely depending on the extent of the damage, the size of the network, and the specific technologies involved. Repair costs may include expenses for labor, equipment replacement or repair, materials, and any additional resources required to restore the network to full functionality. The following data, from the U.S. Department of Homeland Security Cybersecurity and Infrastructure Security Agency, indicates cost ranges for communications system components:

Table 112: Summary of Communication System Component Costs

Components	Examples	Cost	Expected Lifespan
Infrastructure	Towers, shelters, commercial and backup power equipment,	$$$–$$$$$	20–25 years
Fixed Station Equipment	Antennas, repeaters, towers on wheels, consoles, mobile stations, servers, computers, physical and electronic security elements (e.g., fencing, cameras, monitors, environmental conditions)	$$-$$$	3-15 years
Devices	Handheld portable radios, cellular phones, satellite phones, mobile data devices	$-$$	2-10 years
Accessories	Holsters, chargers, speakers, lapel microphone extensions, Bluetooth, vehicle kits, air cards, intercoms	$	2-10 years
Features	Encryption to protect against security risks, ruggedization to ensure reliant services, Over-the-Air-Programming, automatic roaming	$-$$$	-
Software and Data Storage	Global information system, emergency notifications, monitoring, call answering, database access, Automatic Vehicle Locator	$-$$	-

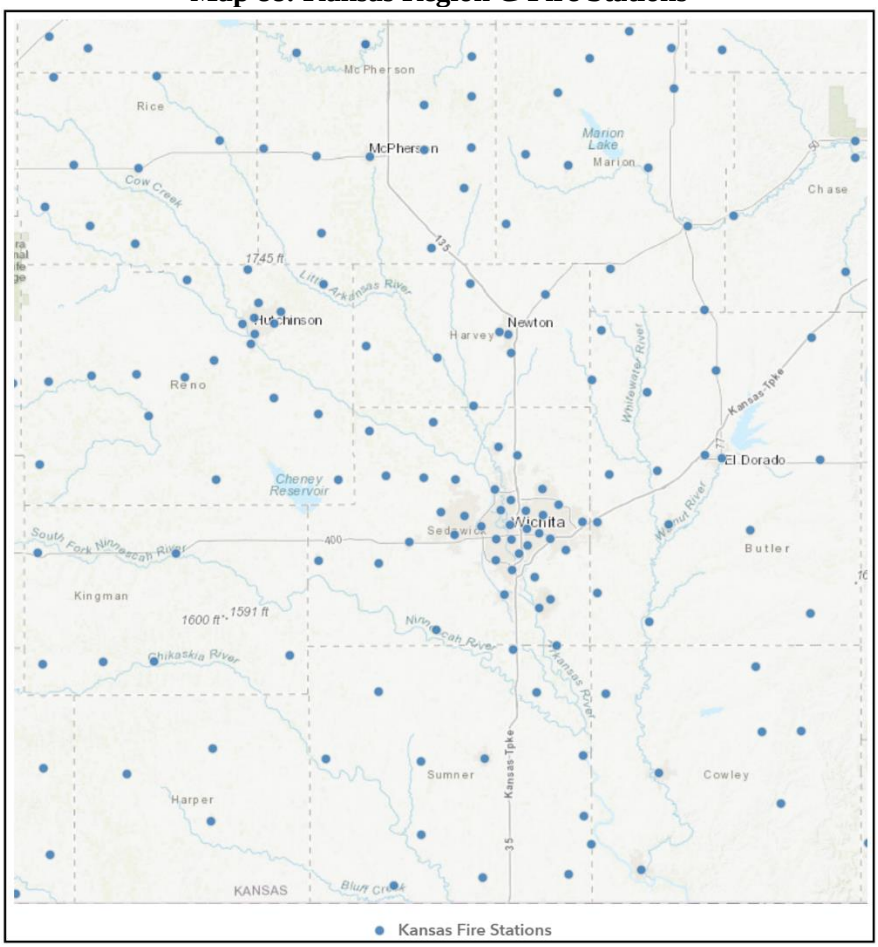
Source: U.S. Department of Homeland Security Cybersecurity and Infrastructure Security Agency

Severe Weather can have various impacts on emergency response efforts, affecting the ability of emergency services to effectively manage and address the consequences of the storm. Some potential impacts include:

- Increased Call Volume: Severe weather events typically result in a surge in emergency calls, overwhelming call centers and emergency hotlines. This can lead to delays in response times and increased stress on emergency services.
- Infrastructure Damage: High winds associated with Severe Weather can cause trees and power lines to fall, leading to road blockages and posing safety hazards. Infrastructure damage may slow down emergency response and increase the complexity of rescue operations.
- Search and Rescue Challenges: Storms can generate debris, making search and rescue operations more challenging. Flooded areas may hide hazards beneath the water surface, and strong winds can complicate helicopter or drone operations.
- Evacuations: Severe Weather may necessitate evacuations, requiring emergency responders to manage shelters for displaced individuals. Providing adequate shelter, food, and medical care becomes a priority.
- Resource Allocation: Emergency response agencies must strategically allocate resources to address the most urgent needs during and after a Severe Weather. This includes deploying personnel, equipment, and supplies to the most affected areas.

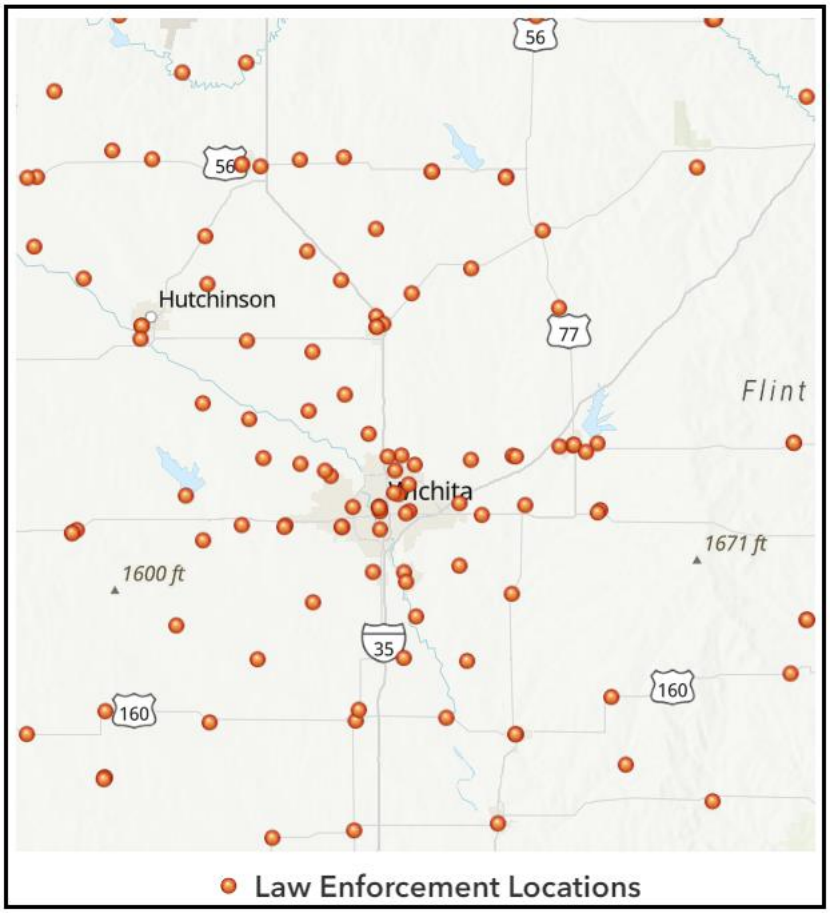
The following maps, from the State of Kansas Geoportal, details the location of fire and law enforcement stations throughout Kansas Region G:

Map 88: Kansas Region G Fire Stations



Source: State of Kansas GIS

Map 89: Kansas Region G Law Enforcement Locations



Source: State of Kansas GIS

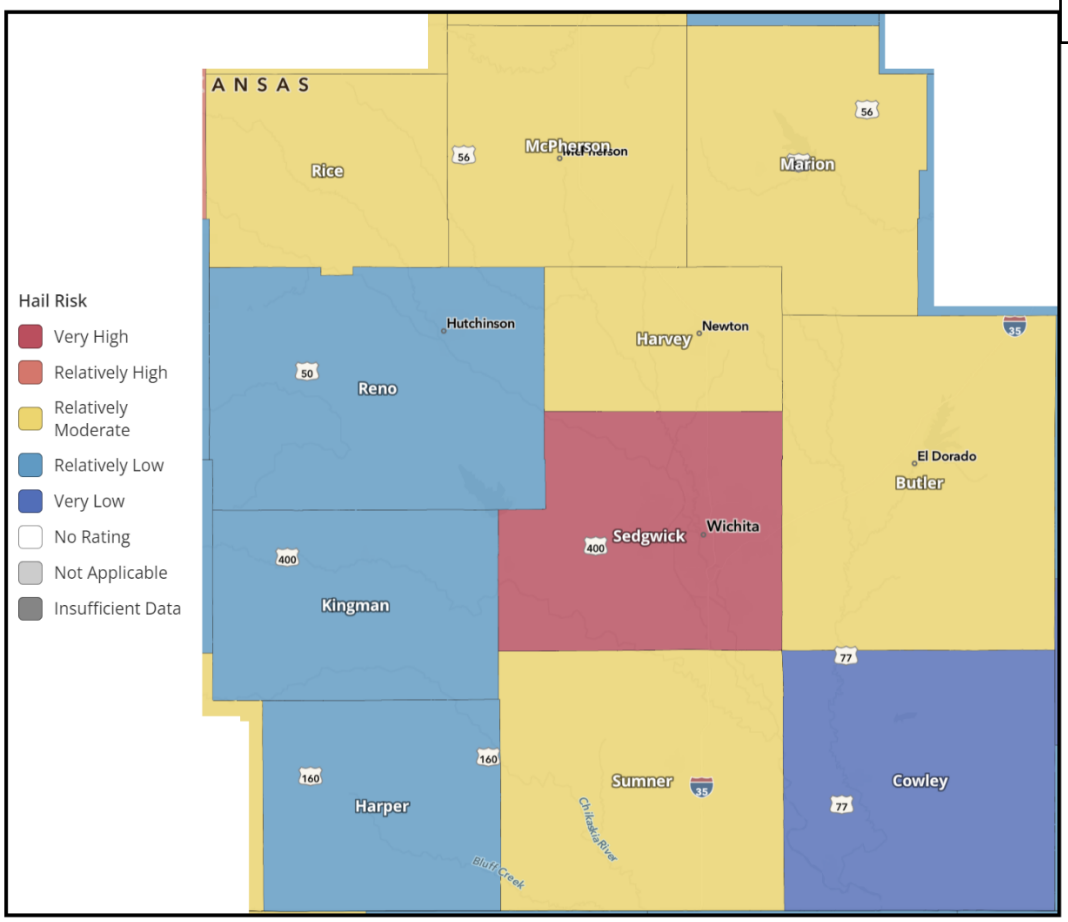
Hospitals and other smaller medical facilities may see an increase in Severe Weather related injuries during an event, but it is considered unlikely that this increase will impact or overload capacity. Hospital capacity mapping may be found in Section 4.9.6, Map 35.

Severe Weather can increase the demand for emergency shelters, particularly in cases of widespread power outages. Setting up and managing these shelters can strain resources.

FEMA NRI

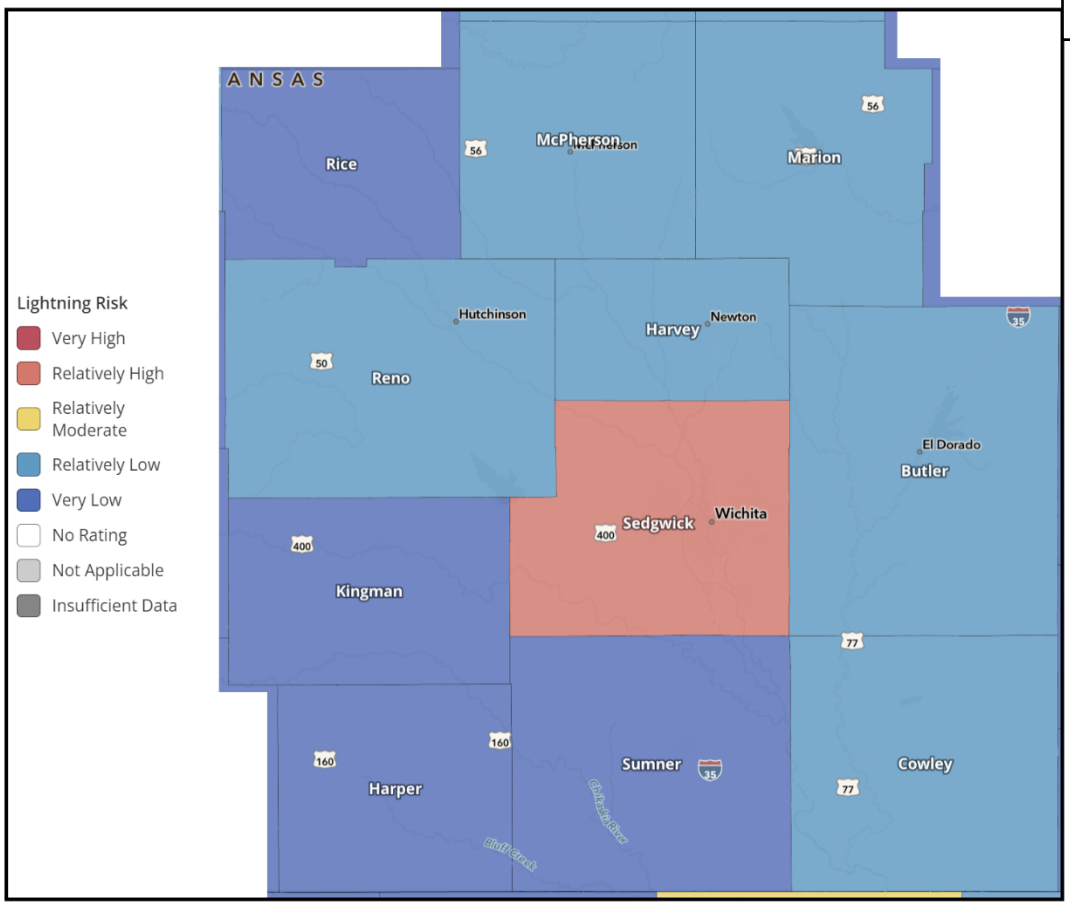
Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating counties from the components of Severe Weather (hail, lightning, and strong winds):

Map 90: Kansas Region G FEMA NRI Hail Risk



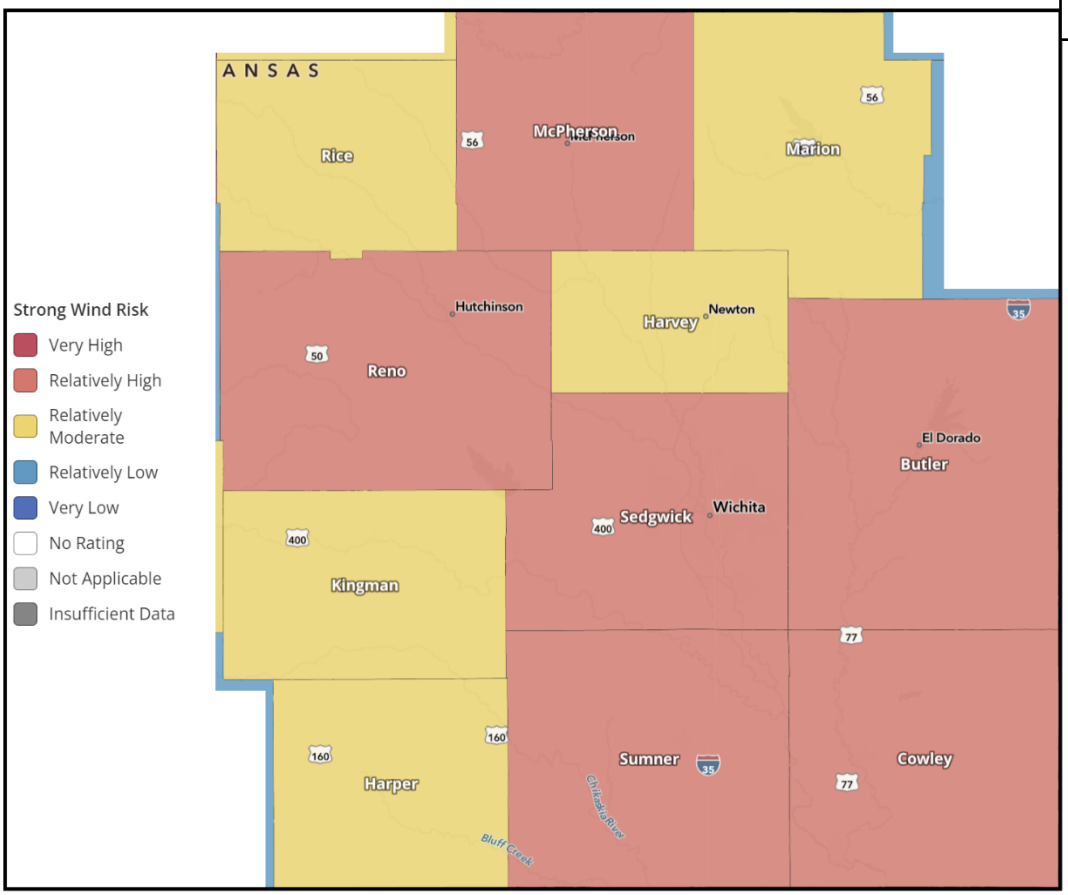
Source: FEMA NRI

Map 91: Kansas Region G FEMA NRI Lightning Risk



Source: FEMA NRI

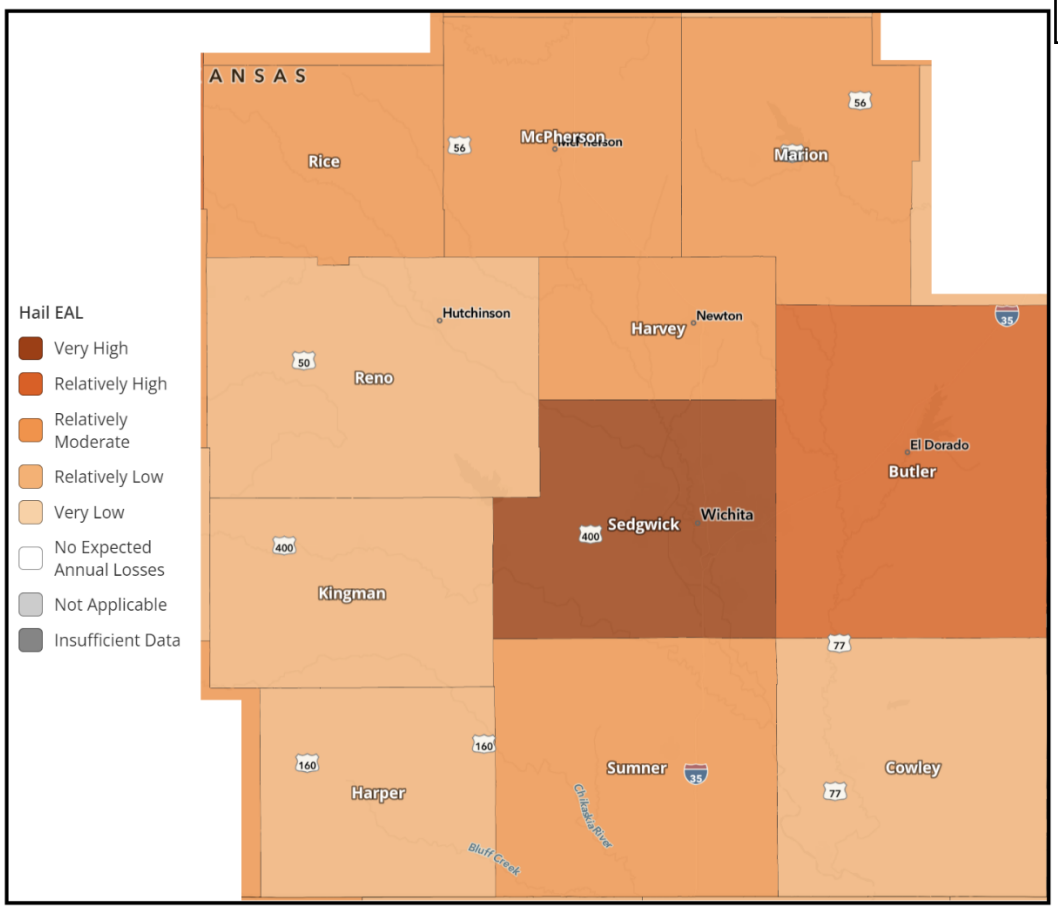
Map 92: Kansas Region G FEMA NRI Strong Wind Risk



Source: FEMA NRI

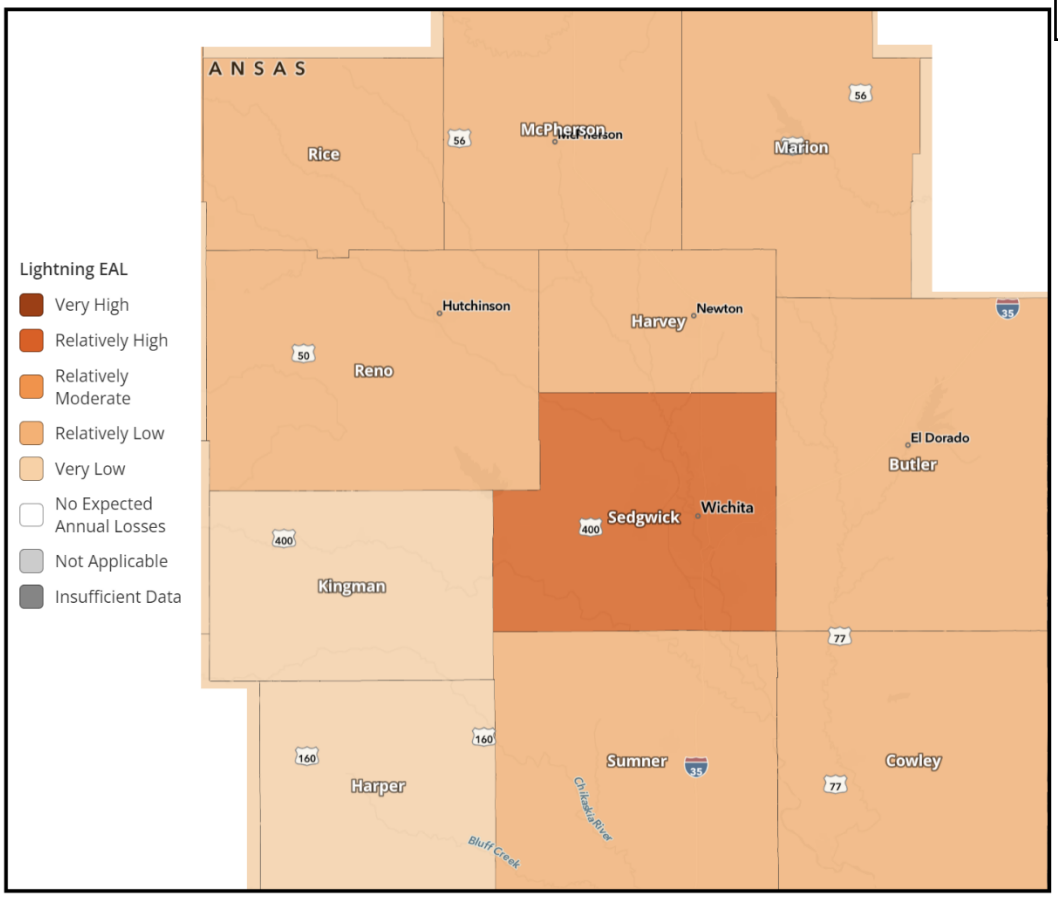
As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for the components of Severe Weather (hail, lightning, and strong winds) for participating counties within Kansas Region G:

Map 93: Kansas Region G FEMA NRI Hail EAL



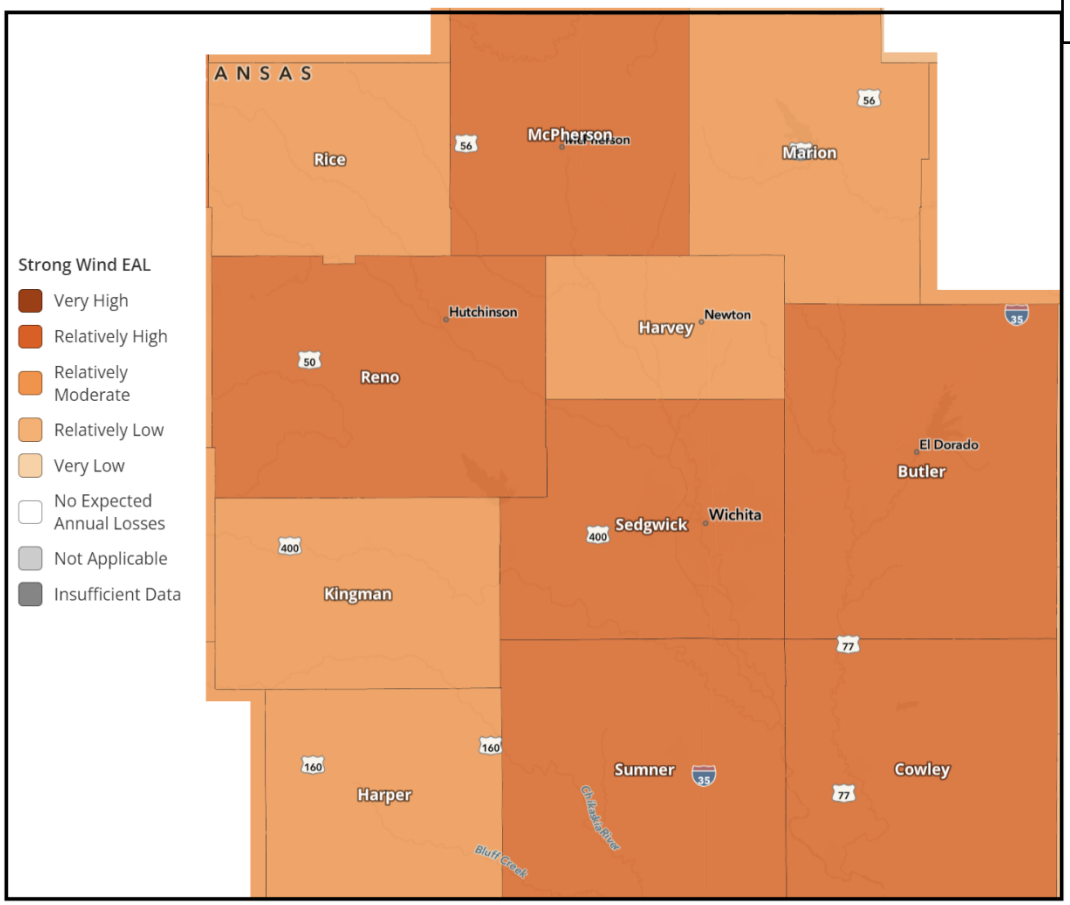
Source: FEMA NRI

Map 94: Kansas Region G FEMA NRI Lightning EAL



Source: FEMA NRI

Map 95: Kansas Region G FEMA NRI Strong Wind EAL



Source: FEMA NRI

The following tables indicates the FEMA NRI and EAL analysis for each participating Kansas Region G county for extreme heat and extreme cold:

Table 113: Kansas Region G FEMA NRI and EAL for Hail by County

County	Risk Index	EAL
Butler	Relatively Moderate	Relatively High
Cowley	Very Low	Very Low
Harper	Relatively Low	Very Low
Harvey	Relatively Moderate	Relatively Low
Kingman	Relatively Low	Very Low
Marion	Relatively Moderate	Relatively Low
McPherson	Relatively Moderate	Relatively Low
Reno	Relatively Low	Very Low
Rice	Relatively Moderate	Relatively Low
Sedgwick	Relatively High	Very High
Sumner	Relatively Moderate	Relatively Low

Source: FEMA NRI

Table 114: Kansas Region G FEMA NRI and EAL for Lightning by County

County	Risk Index	EAL
Butler	Relatively Low	Relatively Low
Cowley	Relatively Low	Relatively Low
Harper	Very Low	Very Low
Harvey	Relatively Low	Relatively Low
Kingman	Very Low	Very Low
Marion	Relatively Low	Relatively Low
McPherson	Relatively Low	Relatively Low
Reno	Relatively Low	Relatively Low
Rice	Very Low	Relatively Low
Sedgwick	Relatively High	Relatively High
Sumner	Very Low	Relatively Moderate

Source: FEMA NRI

Table 115: Kansas Region G FEMA NRI and EAL for Strong Wind by County

County	Risk Index	EAL
Butler	Relatively High	Relatively High
Cowley	Relatively High	Relatively High
Harper	Relatively Moderate	Relatively Moderate
Harvey	Relatively Moderate	Relatively Moderate
Kingman	Relatively Moderate	Relatively Moderate
Marion	Relatively Moderate	Relatively Moderate
McPherson	Relatively High	Relatively High
Reno	Relatively High	Relatively High
Rice	Relatively Moderate	Relatively Moderate
Sedgwick	Relatively High	Relatively High
Sumner	Relatively High	Relatively High

Source: FEMA NRI

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 116: Severe Weather Consequence Analysis

Subject	Potential Impacts
Impact on the Public	severe weather can cause extensive property damage, loss of utility service, and injury to the public. Those most at-risk are low-income and homeless individuals without proper shelter.
Impact on Responders	First responders may be unable to access roadways due to flooding, trees, or debris. Exposure to lightning, flooding, and high winds may cause injuries to first responders. Vehicles and resources may be damaged, leading to impaired response activities. In addition, road conditions may become hazardous as a result of the by-products
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. Severe Weather may impact an agency's ability to maintain continuity of operations due to power outages, flooding, and wind damage. If the activation of alternate facilities was required, travel may be difficult as well as computer/network access due to long-term power outages caused by severe weather.
Delivery of Services	Delivery of services may be impaired by flooding, obstruction, and damage to roadways and resources. The ability to deliver goods and services will be impacted

Table 116: Severe Weather Consequence Analysis

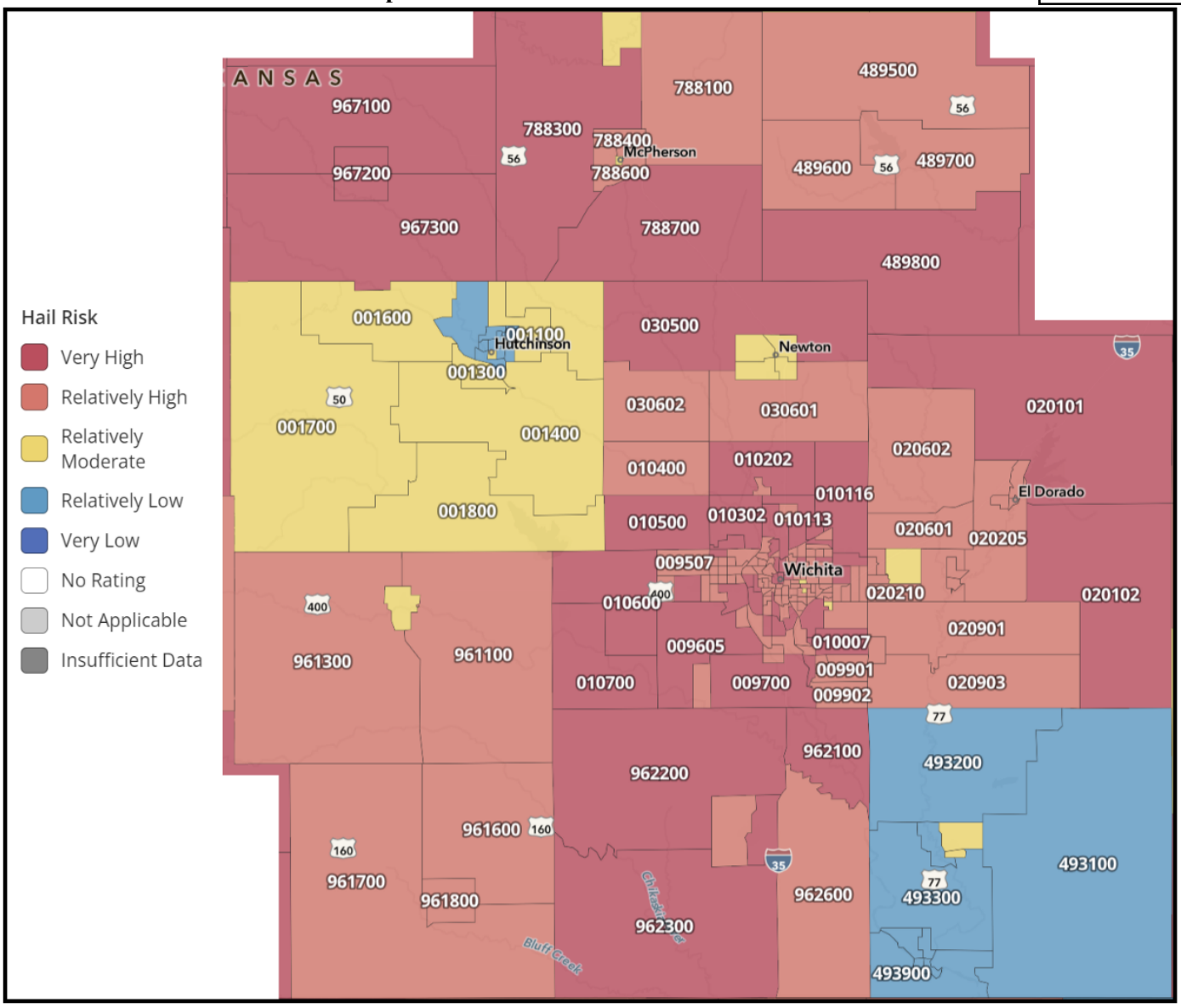
Subject	Potential Impacts
	locally, regionally, or statewide depending on the magnitude of the event. Goods, equipment, and vehicles may become damaged during transport.
Property, Facilities, and Infrastructure	Power lines and power generators are most at risk from severe weather and impacts could result in isolated power outages or full-scale blackouts. Building and vehicle damage can occur from hail and other debris created by severe weather. Properties and critical facilities also may face foundational and physical damage due to flooding, lightning strike, or excessive winds, delaying response and recovery operations.
Impact on Environment	Waste and debris from damage treatment infrastructure or hazardous materials facilities could contaminate sources of water and food. Debris can impact and contaminate wildlife and natural areas. Lightning strikes may also ignite fires, leading to destruction of agricultural crops, critical ecosystems, and natural habitats.
Economic Conditions	Flooding, high winds, lightning, and hail can stress state and local resources. Even if some of the costs can be recouped through federal reimbursements (federal disaster declaration), there is a fiscal impact on the local government.
Public Confidence in Governance	Ineffective response can decrease the public's confidence in the ability to respond and govern. Governmental response across local, state, regional, and federal levels require direct actions that must be immediate and effective to maintain public confidence.

4.14.7 Jurisdictional Risk and Vulnerability

To help understand the risk and vulnerability to severe weather of participating jurisdictions mapping from the FEMA NRI was run on a census tract level. As the NRI does not generate mapping for individual jurisdictions, census tract analysis is the closest analogue available to understand individual jurisdiction conditions.

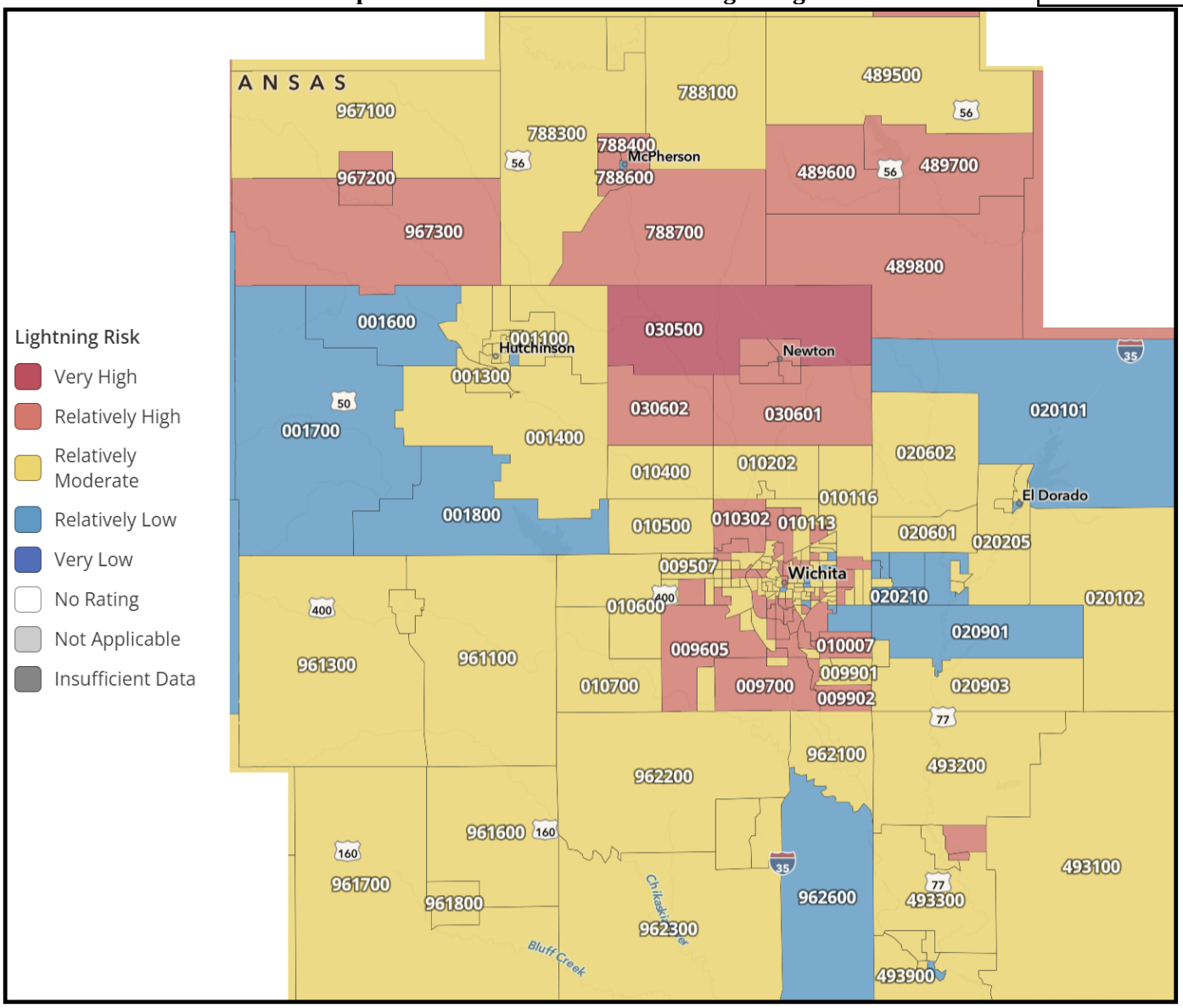
Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating jurisdictions (as indicated by census tract) from the components of Severe Weather (hail, lightning, and strong winds):

Map 96: FEMA NRI Jurisdictional Hail Risk



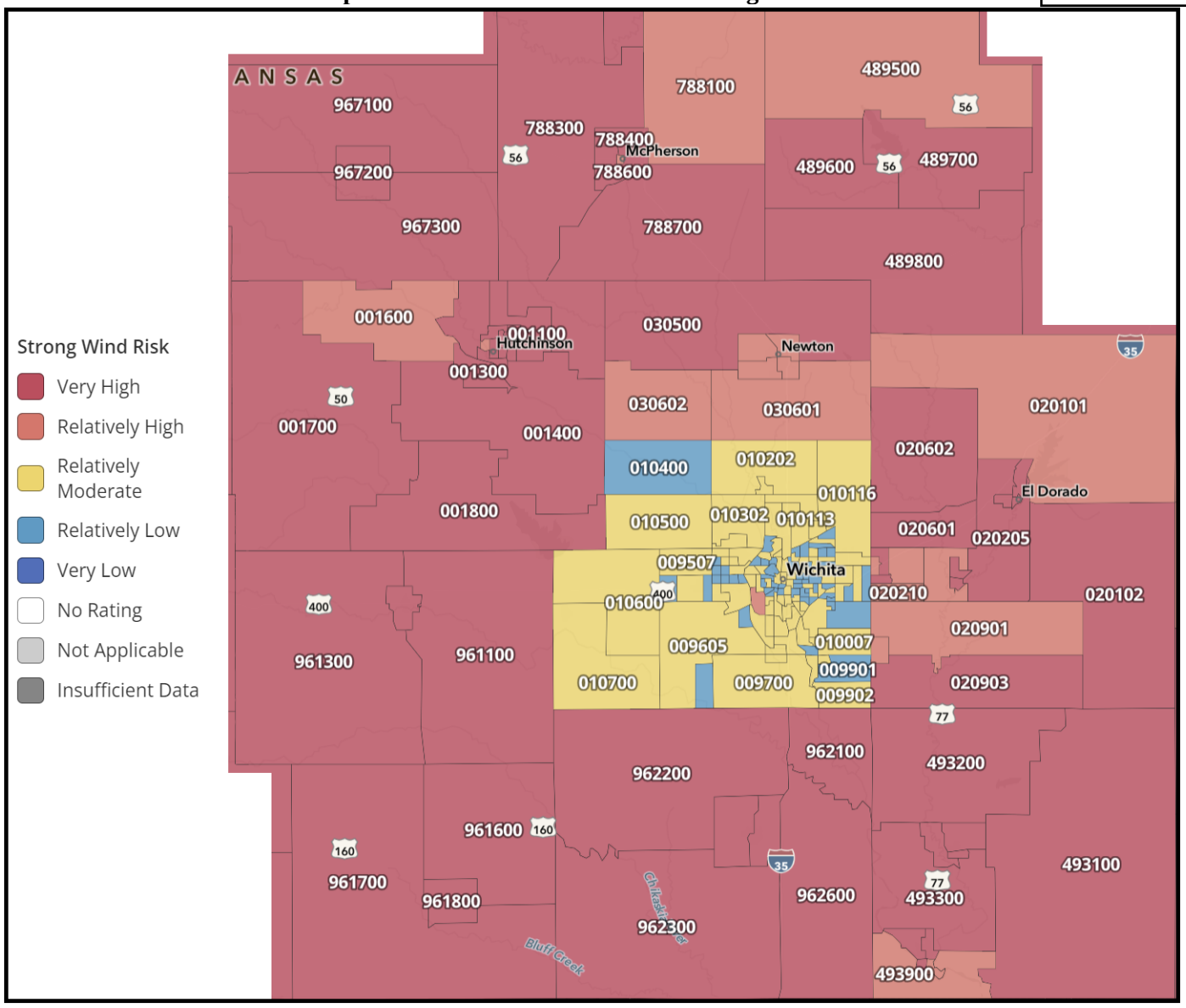
Source: FEMA NRI

Map 97: FEMA NRI Jurisdictional Lightning Risk



Source: FEMA NRI

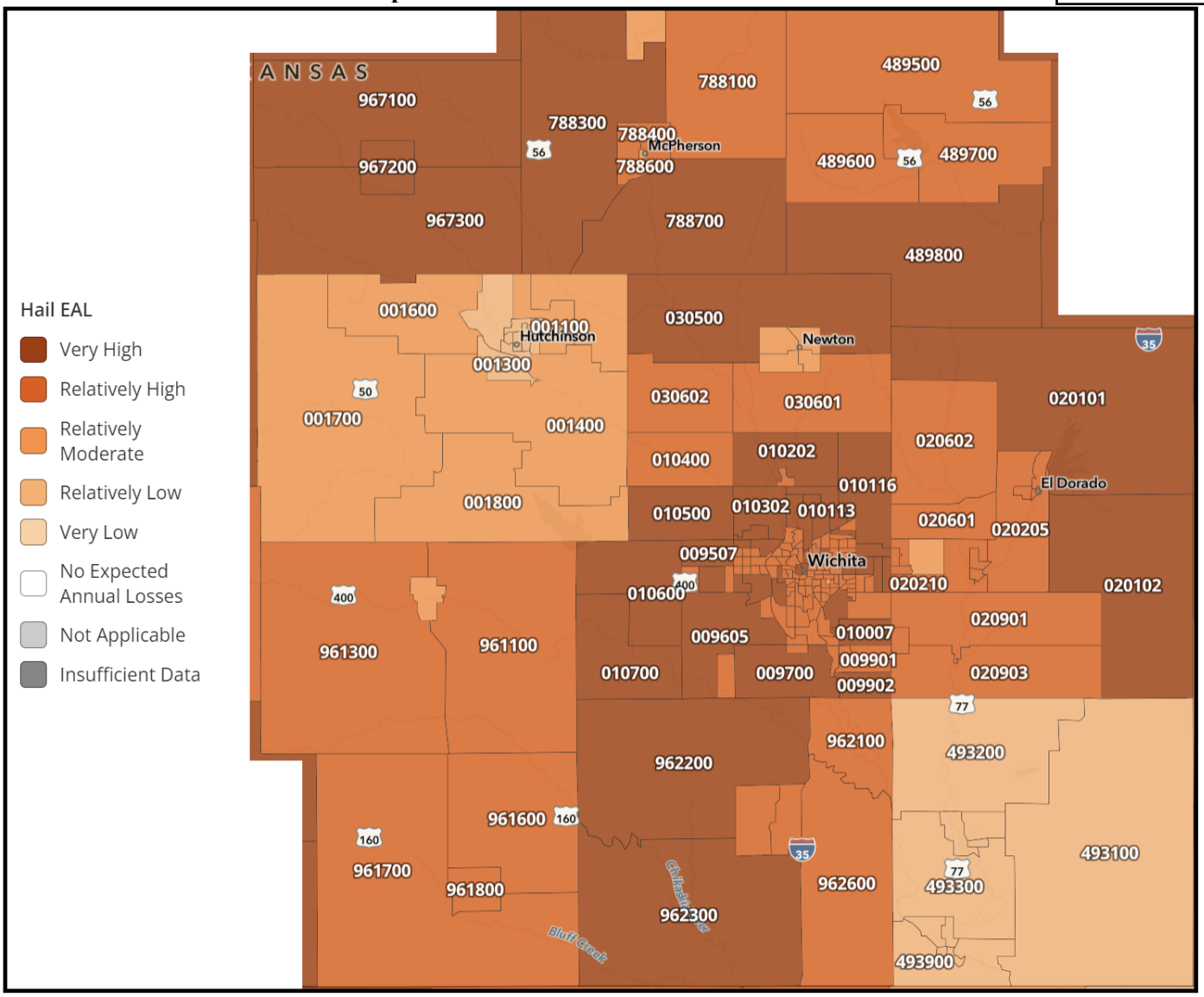
Map 98: FEMA NRI Jurisdictional Strong Wind Risk



Source: FEMA NRI

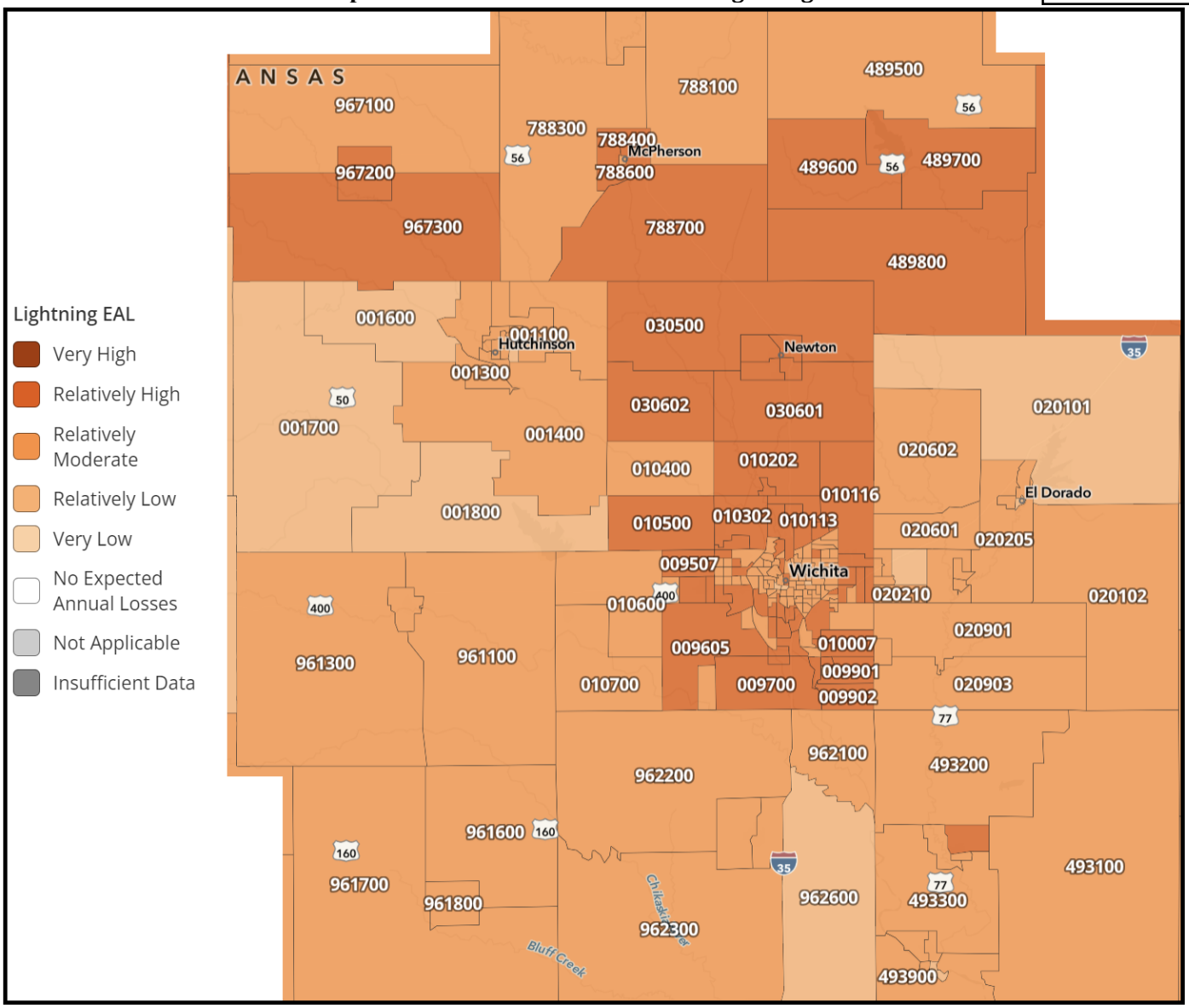
As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for the components of Severe Weather (hail, lightning, and strong winds) for participating jurisdictions (as indicated by census tract) within Kansas Region G:

Map 99: FEMA NRI Jurisdictional Hail EAL



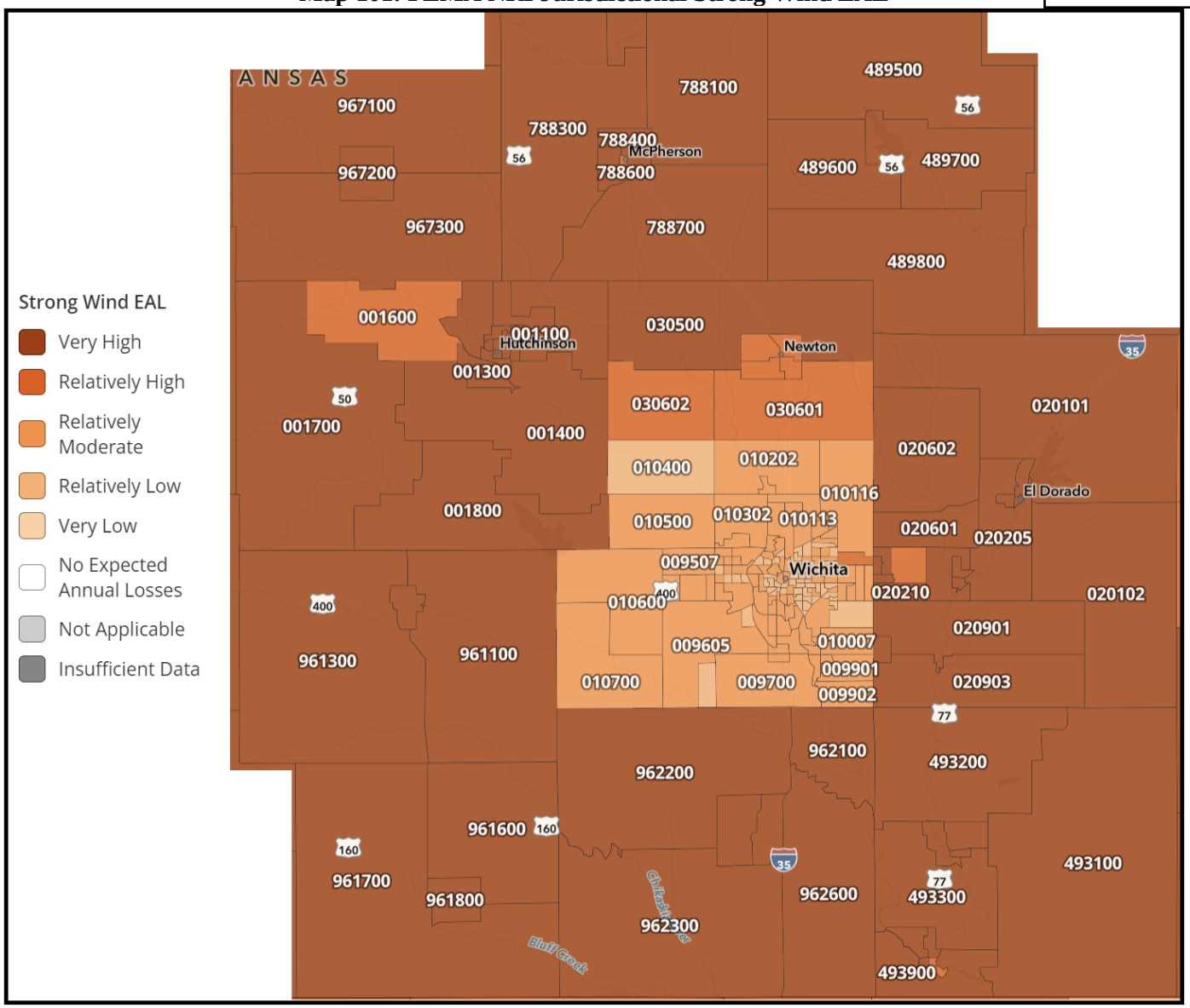
Source: FEMA NRI

Map 100: FEMA NRI Jurisdictional Lightning EAL



Source: FEMA NRI

Map 101: FEMA NRI Jurisdictional Strong Wind EAL



Source: FEMA NRI

Kansas Region G citizens living in mobile homes may have ab increased vulnerability to Severe Weather. Please see section 3.6 for more details on the percentage of mobile homes for each participating county.

Full census tract NRI data tables, detailing potentially vulnerable structure and agriculture data, along with population data, may be found in Appendix C.

4.15 Severe Winter Weather

4.15.1 Hazard Description

A winter storm encompasses multiple effects caused by winter weather. Included are strong winds, ice storms, heavy or prolonged snow, sleet, and extreme temperatures. Winter storms can be increasingly hazardous in areas and regions that only see winter storms intermittently.

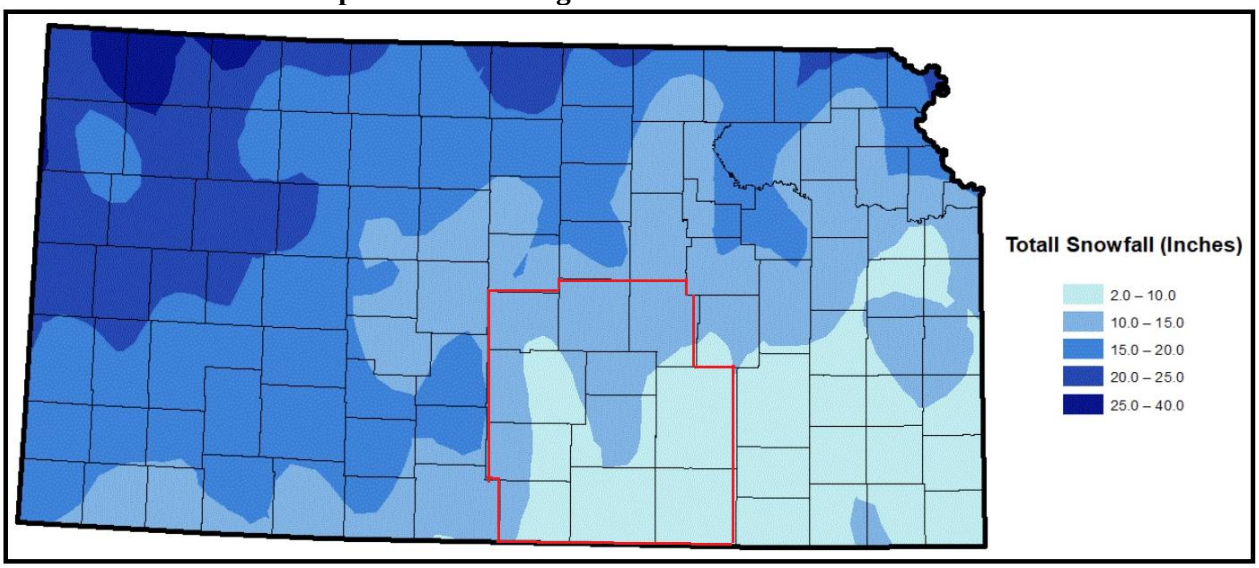
This plan defines winter storms as a combination of the following winter weather effects as defined by NOAA and the NWS.

- **Ice Storm:** An ice storm is used to describe occasions when damaging accumulations of ice are expected during freezing rain situations. Significant accumulations of ice pull down trees and utility lines resulting in loss of power and communication, and make travel extremely dangerous. Significant ice accumulations are usually accumulations of ¼" or greater.
- **Heavy Snow:** This generally means snowfall accumulating to 4" or more in depth in 12 hours or less; or snowfall accumulating to 6" or more in depth in 24 hours or less.
- **Winter Storm:** Hazardous winter weather in the form of heavy snow, freezing rain, or heavy sleet. It may also include extremely low temperatures and increased wind.
- **Cold Wave/Extreme Cold:** As described by NWS, a cold wave is a rapid fall in temperature within a 24-hour period requiring substantially increased protection to agriculture, industry, commerce, and social activities. As evidenced by past incidents across the U.S., extreme cold can cause impact to human life and property.

4.15.2 – Location and Extent

Winter storms occur regularly throughout Kansas Region G. These events occur on a large geographic scale, often affecting multiple counties, regions, and states. Winter storms typically form with warning and are often anticipated. Like other large storm fronts, the severity of a storm is not as easily predicted and when it is, the window of notification is up to few hours to under an hour. Although meteorologists estimate the amount of snowfall a winter storm will drop, it is not known exactly how much snow will fall, whether or not it will form an ice storm, or how powerful the winds will be until the storm is already affecting a community. The following map from Kansas State University indicates that the average annual snowfall for Kansas Region G

Map 102: Kansas Region G Normal Annual Snowfall



Source: NOAA

The Northeast Snowfall Impact Scale is a scale used to assess and rank the impact of snowfall events in th United States, but allows for an idea of intensity for Kansas Region G. It was developed by NOAA to provide a standardized way of measuring the societal and economic impacts of snowstorms. The scale takes into account factors such as snowfall amount, population density, and the area affected by the storm to determine its impact. The scale has five categories, each with its own associated impacts:

Table 117: Snowfall Impact Scale

Category	Description	Impacts
1	Notable	Light to moderate snowfall. Limited impacts on transportation and daily life. Typically localized to small areas.
2	Significant	Moderate to heavy snowfall. Widespread impacts on transportation, including delays and disruptions. Some school and business closures. Widespread power outages are rare.
3	Major	Heavy snowfall, often exceeding one foot or more. Significant transportation disruptions, including major highway closures. Widespread school and business closures. Power outages may occur, especially in areas with wet, heavy snow.
4	Crippling	Extreme snowfall, often exceeding two feet or more. Severe and prolonged transportation disruptions, including highway closures. Widespread school and business closures for an extended period. Widespread and prolonged power outages, especially in areas with ice accumulation.
5	Extreme	Exceptional snowfall, often exceeding three feet or more. Complete paralysis of transportation systems, including major highways and airports. Extended school and business closures. Widespread and prolonged power outages with significant damage to the electrical infrastructure.

Source: NOAA

The scale provides information for emergency management, public safety agencies, and the public to understand the potential impacts of a snowstorm and to prepare accordingly. It helps to quantify and communicate the severity of winter weather events, especially where snowfall can have a major impact on daily life and the economy.

Ice storms are characterized by the accumulation of freezing rain or freezing drizzle, which coats surfaces with a layer of ice. These storms can have significant impacts on transportation, infrastructure, and the environment. Ice storms occur when there's a layer of warm air above a layer of cold air near the surface. Precipitation falls as rain in the warm layer and then freezes upon contact with surfaces at or below freezing temperatures in the cold layer. The most common type of precipitation during an ice storm is freezing rain. This is rain that falls as a liquid but freezes upon contact with cold surfaces, forming a layer of ice.

The Sperry–Piltz Ice Accumulation Index is an ice accumulation and ice damage prediction index that, when combined with NWS data, predicts the projected footprint, total ice accumulation, and resulting potential damage from approaching ice storms.

Figure 3: Sperry–Piltz Ice Accumulation Index

ICE DAMAGE INDEX	DAMAGE AND IMPACT DESCRIPTIONS
0	Minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages.
1	Some isolated or localized utility interruptions are possible, typically lasting only a few hours. Roads and bridges may become slick and hazardous.
2	Scattered utility interruptions expected, typically lasting 12 to 24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation.
3	Numerous utility interruptions with some damage to main feeder lines and equipment expected. Tree limb damage is excessive. Outages lasting 1 – 5 days.
4	Prolonged & widespread utility interruptions with extensive damage to main distribution feeder lines & some high voltage transmission lines/structures. Outages lasting 5 – 10 days.
5	Catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeks in some areas. Shelters needed.

Source: Sperry–Piltz Ice Accumulation Index

4.15.3 Previous Occurrence

The following table presents NCEI identified ice storm and winter storm events and the resulting damage totals in Kansas Region G from 2009 to 2023. This data is presented regionally as these storms tend to cover large areas.

Table 118: NCEI Kansas Region G Winter Storm Events

Region	Event Type	Number of Days with Events	Property Damage	Deaths and Injuries
Kansas Region G	Blizzard	4	$2,620,000	0
	Ice Storm	5	$5,600,000	0
	Winter Storm	31	$12,829,000	0

Source: NCEI

It is worth noting that damage estimates indicated by the NCEI are often artificially low. This underreporting is a result of the way the events are reported to the NCEI, often by the local and/or NWS office. When reporting an event oftentimes the NWS office does not have access to the actual damage assessment resulting from that event. As such, the report often details a very low amount or zero-dollar amount for damages. Additionally, deaths and injuries may be underreported as they may be a result of a concurrent event, such as a person driving unsafely during heavy rain and passing away.

4.15.4 Probability of Future Events

Predicting the probability of winter storm occurrences is tremendously challenging due to the large number of factors involved and the random nature of formation. Data from NOAA and the NWS indicate that Kansas Region G can expect an average annual snowfall of between two to 15 inches per year.

Based on historical occurrences, Kansas Region G will continue to experience severe winter storm events on an annual basis. The following table, using data from the NCEI, indicates the yearly probability of a severe winter storm event, the number of deaths or injuries, and estimated property damage for each county in Kansas Region G.

Table 119: Kansas Region G NCEI Severe Winter Storm Event Probability Summary

Event Type	Days with Event	Average Events per Year	Deaths / Injuries	Average Deaths / Injuries per Year	Property Damage	Average Property Damage per Year
Blizzard	4	<1	0	0	$2,620,000	$174,667
Ice Storm	5	<1	0	0	$5,600,000	$373,333
Winter Storm	31	2	0	0	$12,829,000	$855,267

Source: NCEI

4.15.5 Projected Changes in Location, Intensity, Frequency, and Duration

Climate change can lead to greater variability in precipitation patterns. In Kansas Region G, this may result in more erratic winter storms with periods of heavy snowfall followed by rain or freezing rain. These mixed precipitation events can make winter storms more challenging to predict and can lead to a greater risk of ice accumulation. Additionally, Kansas Region G may experience milder winters as average temperatures rise due to climate change. While this could lead to a decrease in the frequency of traditional snowstorms, it may also increase the likelihood of winter storms that produce mixed precipitation, including freezing rain and sleet. Warmer temperatures can lead to a higher snowfall threshold, meaning that storms that would have produced snow in the past may now bring more rain or a mix of precipitation types. This can affect the accumulation of snow in the state. Changes in atmospheric circulation patterns associated with climate change can influence the tracks of winter storms. This could lead to a shift in the amounts of heavy snowfall, ice, and other winter weather hazards in Kansas Region G.

4.15.6 Vulnerability and Impact

All of Kansas Region G is vulnerable to winter and ice storms. Based on the non-geographic specific aspect of this hazard, i.e., no one area is at a greater risk, all of the planning area's structural inventory and population is vulnerable.

Extremely cold temperatures are a threat to anyone exposed to them. Extreme cold can cause frostbite and hypothermia. Bitterly cold temperatures can also burst water and create an excessive demand on providers to deliver energy for household heating. There are also fire dangers associated with home heating. Heavy snow and/or ice can paralyze communities. Roads can become hazardous which may cause accidents, disrupted flow of supplies, and challenges in the delivery of emergency and medical services. Additional impacts on people and the community may include:

- Injuries and Fatalities: Slippery sidewalks, roads, and driveways can lead to slip and fall accidents, vehicle crashes, and pedestrian injuries. Exposure to extreme cold temperatures can cause frostbite, hypothermia, and cold-related illnesses, which can be life-threatening.
- Power Outages: Heavy snow, ice, and freezing rain can bring down power lines and disrupt electricity supply. Power outages can lead to heating and lighting challenges, particularly in extreme cold conditions.
- Transportation Disruptions: Winter storms can make roads and highways treacherous, leading to travel delays, accidents, and stranded motorists. Public transportation services may be disrupted, affecting commuters and essential travel.
- Stranded or Isolated Communities: Severe winter weather can leave communities isolated and cut off from emergency services and supplies. Residents may need to shelter in place or rely on local resources until conditions improve.
- Health Risks: Exposure to extreme cold can lead to a range of health risks, including frostbite, hypothermia, and cold-related illnesses. Individuals with pre-existing health conditions may face exacerbated risks.
- Increased Heating Costs: Cold weather can result in higher heating costs, which can be a financial burden for many households. Low-income individuals and families may struggle to afford adequate heating.
- Disruption of Essential Services: Severe winter weather can disrupt essential services such as healthcare, emergency response, and utilities. Hospitals may face increased patient volumes due to weather-related injuries and illnesses.

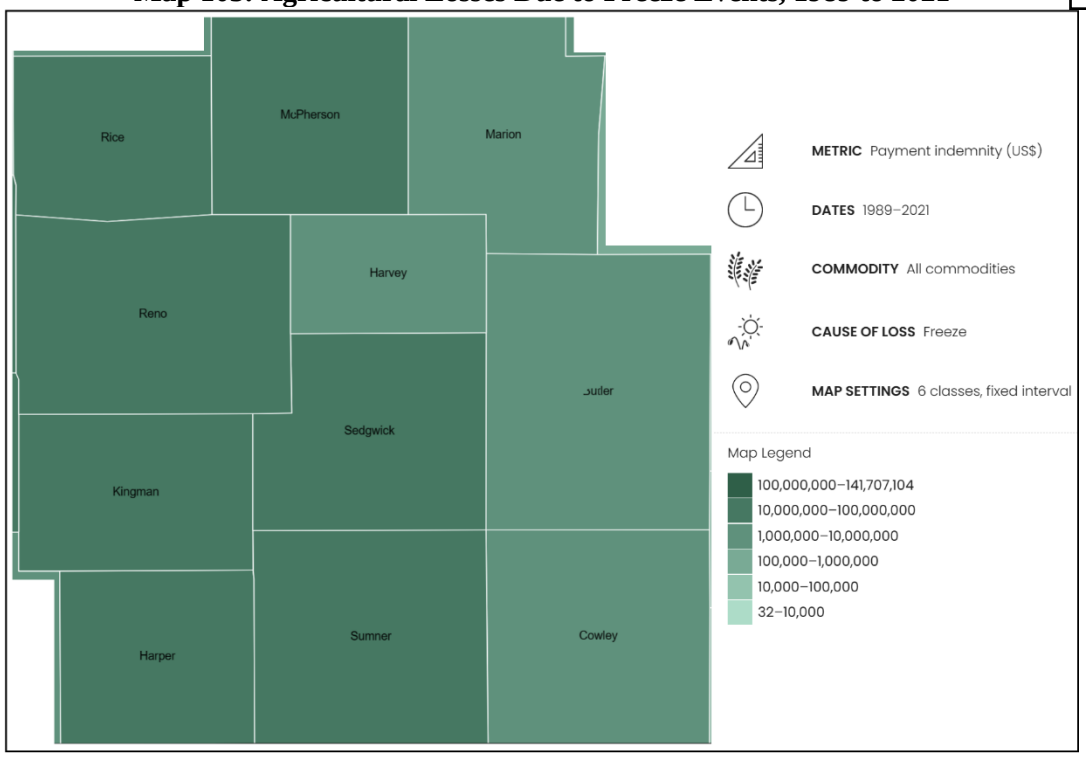
Severe winter storms can have significant and wide-ranging impacts on critical facilities and infrastructure. The extent of the impact depends on the severity of the storm, the preparedness of the facilities and infrastructure, and the effectiveness of response and recovery efforts, and may include:

- Power Outages: Severe winter storms can cause power outages by bringing down power lines, accumulation on electrical infrastructure, or overloading the electrical grid due to increased demand for heating. Critical facilities such as hospitals, emergency response centers, and data centers may rely on backup generators to maintain essential operations during outages.
- Communication Disruptions: Ice and freezing rain can damage communication infrastructure, including cell towers, telephone lines, and data centers, leading to disruptions in phone and internet services. This can hinder emergency communication and coordination, affecting critical response efforts.
- Transportation Disruptions: Snow and ice accumulation on roads, runways, and railways can disrupt transportation networks, leading to travel delays, accidents, and closures. Critical facilities may face challenges in receiving essential supplies and personnel during and after the storm.
- Healthcare System Strain: Hospitals and healthcare facilities may experience increased demand for medical services, including those related to slips and falls, traffic accidents, and cold exposure.
- Water Supply Interruptions: Freezing temperatures can cause water pipes to burst, leading to water supply interruptions and damage to water infrastructure. Critical facilities such as hospitals and emergency response centers rely on a continuous supply of clean water for various purposes, including patient care and firefighting.
- Wastewater Systems: Cold temperatures can affect wastewater treatment plants, leading to potential operational disruptions and contamination risks.
- Fuel Supply Disruptions: Snow and ice can disrupt fuel supply chains, leading to shortages of gasoline, diesel, and heating oil. Critical facilities may rely on fuel for backup power generators and heating systems.
- Property Damage: Severe winter storms can result in property damage, including roof collapses due to heavy snow accumulation, ice damming, and frozen pipes.

Winter storms can have various impacts on the environment, particularly in regions prone to cold and snowy winters. These impacts can affect ecosystems, wildlife, and natural resources and can include habitat disruption, reduction of food sources, changes in migration patterns, and damage to foliage (especially if a spring storm). Additionally, the use of salt and de-icing chemicals on roads and sidewalks can have negative environmental impacts. These chemicals can find their way into nearby water bodies, leading to water pollution and harm to aquatic ecosystems. Snowmelt can also introduce pollutants from roadways and urban areas into rivers and streams, leading to reduced water quality. Elevated sediment levels and changes in water temperature can also affect aquatic life.

Severe winter weather conditions can cause significant agricultural impacts. The following map from the United States Department of Agriculture details total agricultural losses, by county, due to freeze events from 1989 to 2021:

Map 103: Agricultural Losses Due to Freeze Events, 1989 to 2021



Source: USDA

Severe winter weather can pose risks to local operations and facilities, and can disrupt government functions, damage critical infrastructure, and strain resources. Some of the risks to operations and facilities include:

- Transportation Disruptions: Snow and ice accumulation on roads and highways can hinder transportation, making it difficult for state agencies and personnel to travel and respond to emergencies. RIDOT must allocate resources to plow and salt roads, clear snow and ice, and repair potholes caused by freezing and thawing. These efforts are costly and resource intensive.
- School Closures: Winter storms often lead to school closures, which can affect state-run education programs and services. State agencies may need to coordinate with school districts to ensure the safety of students.
- Emergency Response and Public Safety: Winter storms can result in increased demands for emergency services, including responses to traffic accidents, medical emergencies, and stranded motorists. State and local agencies must allocate additional resources to address these needs.
- Economic Impact: Winter storms can result in economic losses due to reduced economic activity, transportation disruptions, property damage, and increased spending on emergency response and recovery efforts.
- Emergency Shelter Operations: Local jurisdictions may need to operate or coordinate emergency shelters during winter storms to provide shelter and resources to vulnerable populations, including those experiencing homelessness.
- Resource Allocation: State agencies must allocate resources, including personnel, equipment, and stockpiled supplies, to support emergency response efforts and maintain public services.
- Communication Challenges: Winter storms can disrupt communication networks, hindering the ability of state agencies to communicate internally and with the public. This can impact emergency notifications and coordination efforts.
- Budgetary Impact: The costs associated with snow removal, road maintenance, emergency response efforts, and infrastructure repair can strain state budgets.
- Governance and Administrative Challenges: Government offices and facilities may experience closures or reduced staffing during severe winter weather, affecting administrative functions, regulatory processes, and public services.

Potentially Vulnerable Community Lifelines

Extreme cold temperatures often associated with winter weather can impact various community lifelines, critical systems, and services that communities rely on for their functioning. Vulnerabilities arise due to the stress that winter weather places on infrastructure, resources, and operational processes. As an overview, the May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report indicates the following loss values for community lifelines:

Table 120: Economic Impacts of Loss of Service Per Capita Per Day (in 2022 dollars)

Category	Loss
Loss of Electrical Service	$199
Loss of Wastewater Services	$66
Loss of Water Services	$138
Loss of Communications/Information Technology Services	$141

Source: May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report

Winter storms can have significant impacts on road infrastructure, creating challenging conditions for transportation and necessitating proactive measures for maintenance and safety. Winter storms can impact road infrastructure:

- Snow Accumulation: Snowfall can accumulate on road surfaces, creating slippery and hazardous conditions for drivers. Accumulated snow can reduce road visibility and make travel difficult.
- Ice Formation: Freezing temperatures can lead to the formation of ice on roadways, increasing the risk of accidents and making roads slippery. Black ice, which is nearly invisible, poses a particular hazard.
- Snowdrifts: Strong winds during winter storms can lead to the formation of snowdrifts on roads, especially in open areas. These drifts can obstruct visibility and impede traffic flow.
- Road Surface Damage: The freeze-thaw cycle, where melted snow refreezes, can lead to the formation of ice patches and potholes on road surfaces. This cycle can contribute to the deterioration of road infrastructure over time.
- Freeze-Thaw Cycling: Alternating freezing and thawing can cause the expansion and contraction of water within pavement cracks, leading to the formation and enlargement of potholes.
- Snowplow and Deicing Operations: Snowplows and deicing operations are necessary to clear roads and improve driving conditions. However, the use of salt and chemicals for deicing can contribute to corrosion and deterioration of road surfaces and infrastructure.
- Infrastructure Stress: Bridges and overpasses are particularly susceptible to ice formation due to the lack of ground contact. Winter storms can stress these structures, potentially leading to structural issues over time.

The following table, from the Kansas Department of Transportation, indicates the total road miles by county for Kansas Region G, all of which require plowing and maintenance during winter weather events:

Table 121: Kansas Region G Road Mileage by County

County	Total Road Miles
Butler	2,564
Cowley	1,874
Harper	1,422
Harvey	1,297
Kingman	1,487
McPherson	1,893
Marion	1,881
Reno	2,802
Rice	1,429
Sedgwick	4,442
Sumner	2,423

Source: Kansas Department of Transportation

In smaller counties with fewer resources and equipment, the cost for plowing and treating roads may b end of the spectrum, ranging from a few thousand dollars to around $10,000 per snow event. In larger counties or urban areas with extensive road networks and higher population densities, the cost can be much higher, potentially ranging from $10,000 to $50,000 or more per snow event. During severe winter storms or blizzards, the cost of snow removal can escalate significantly due to increased demand for services, overtime wages for workers, and the need for additional equipment and resources. In such cases, costs could exceed $100,000 or even reach into the millions for major metropolitan areas.

In general, the priority for snow removal is based on traffic volume, speed limits and road surface types. Preference is generally given in the following order:

- State trunklines
- Primary roads
- Major local roads
- Residential / subdivision streets

Winter storms can impact electrical utilities in various ways, potentially leading to disruptions in service. These impacts include:

- Power Outages: High temperatures can strain electrical systems, leading to increased demand for cooling systems like air conditioners. This heightened demand can overload power grids, resulting in power outages.
- Equipment Failure: Electrical equipment, such as cables and switches, may experience higher resistance and increased stress during extreme heat, increasing the likelihood of equipment failures.
- Reduced Efficiency in Power Plants: Power generation facilities may experience reduced efficiency during heatwaves due to elevated ambient temperatures. This can affect the output of power plants and potentially lead to supply shortages.
- Icing on Power Lines: Ice accumulation on power lines can lead to increased weight, potentially causing lines to sag or break. This can result in power outages and safety hazards.

In order to reduce plan duplication, mapping concerning electrical generation plants, high-capacity transmission lines, and electrical utility providers as well as utility repair and replacement cost estimation provides may be found in Section 4.9.6, Maps 33 and 34 and Chart 15.

Winter storms can significantly impact emergency response infrastructure, creating challenges for first responders and organizations involved in managing and mitigating the effects of severe weather events. Winter storms can impact emergency response through:

- Transportation Disruptions: Snow and ice accumulation on roads can hinder the ability of emergency vehicles to navigate and reach affected areas promptly. Hazardous road conditions may result in delays in response times.
- Road Closures: Winter storms can lead to the closure of roads due to snow accumulation, ice, and hazardous conditions. This can limit access for emergency vehicles and impede the evacuation of residents.
- Communication Disruptions: Snow and ice can disrupt communication networks, affecting the ability of emergency responders to coordinate and communicate effectively. Downed power lines and damage to communication infrastructure contribute to these disruptions.
- Power Outages: Severe winter weather, including ice storms, can lead to power outages. Emergency response facilities, such as command centers and fire stations, may lose power, affecting their operational capabilities.
- Exposure: Emergency responders face increased health and safety risks in winter conditions. Exposure to extreme cold, snow, and ice can impact the well-being of responders and affect their ability to provide effective assistance.

- Resource Allocation Challenges: Winter storms often require the allocation of additional resour personnel, equipment, and supplies, to address immediate needs. This can strain emergency response organizations and impact their ability to respond to other concurrent incidents.
- Logistical Challenges: Snow accumulation and icy conditions may create logistical challenges for the transportation of supplies, equipment, and personnel to affected areas, hindering the overall effectiveness of emergency response efforts.
- Increased Demand for Services: Winter storms can result in an increased demand for emergency services, including medical assistance, search and rescue operations, and responses to accidents. Emergency response organizations may need to manage a higher volume of incidents simultaneously.

In order to reduce plan duplication, mapping concerning fire and law enforcement locations may be found in Section 4.14.6, Maps 88 and 89.

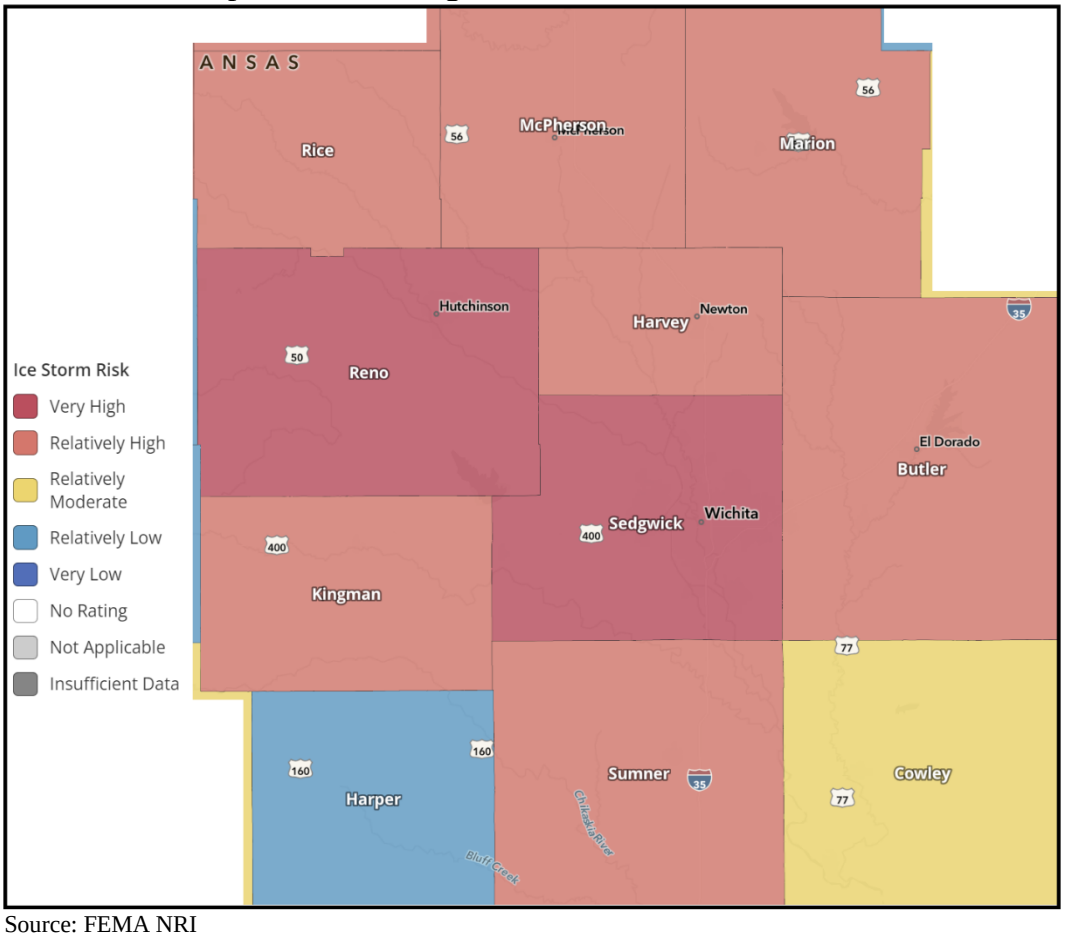
Hospitals and other smaller medical facilities may see an increase in winter storm related injuries during an event, but it is considered unlikely that this increase will impact or overload capacity. Hospital capacity mapping may be found in Section 4.9.6, Maps 35.

Winter storms can increase the demand for emergency shelters, particularly in cases of widespread power outages. Setting up and managing these shelters can strain resources.

FEMA NRI

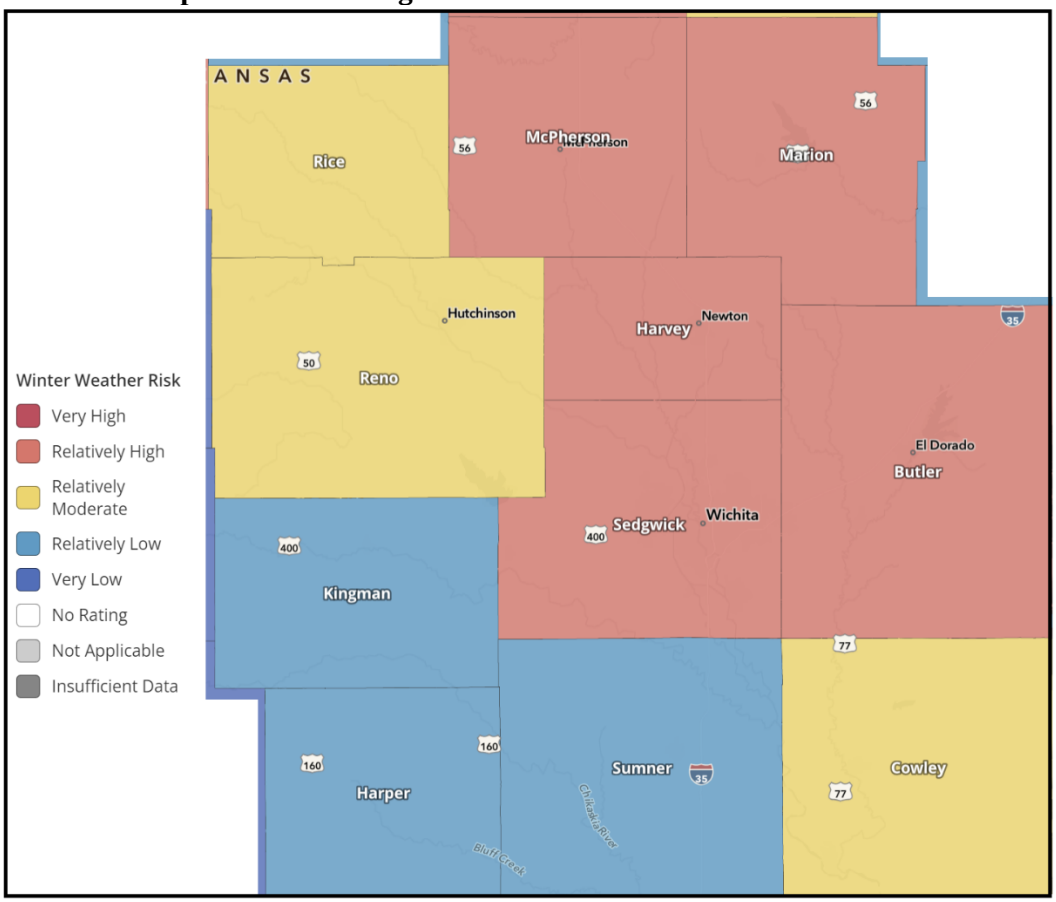
Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating counties from ice storms and winter weather:

Map 104: Kansas Region G FEMA NRI Ice Storm Risk



Source: FEMA NRI

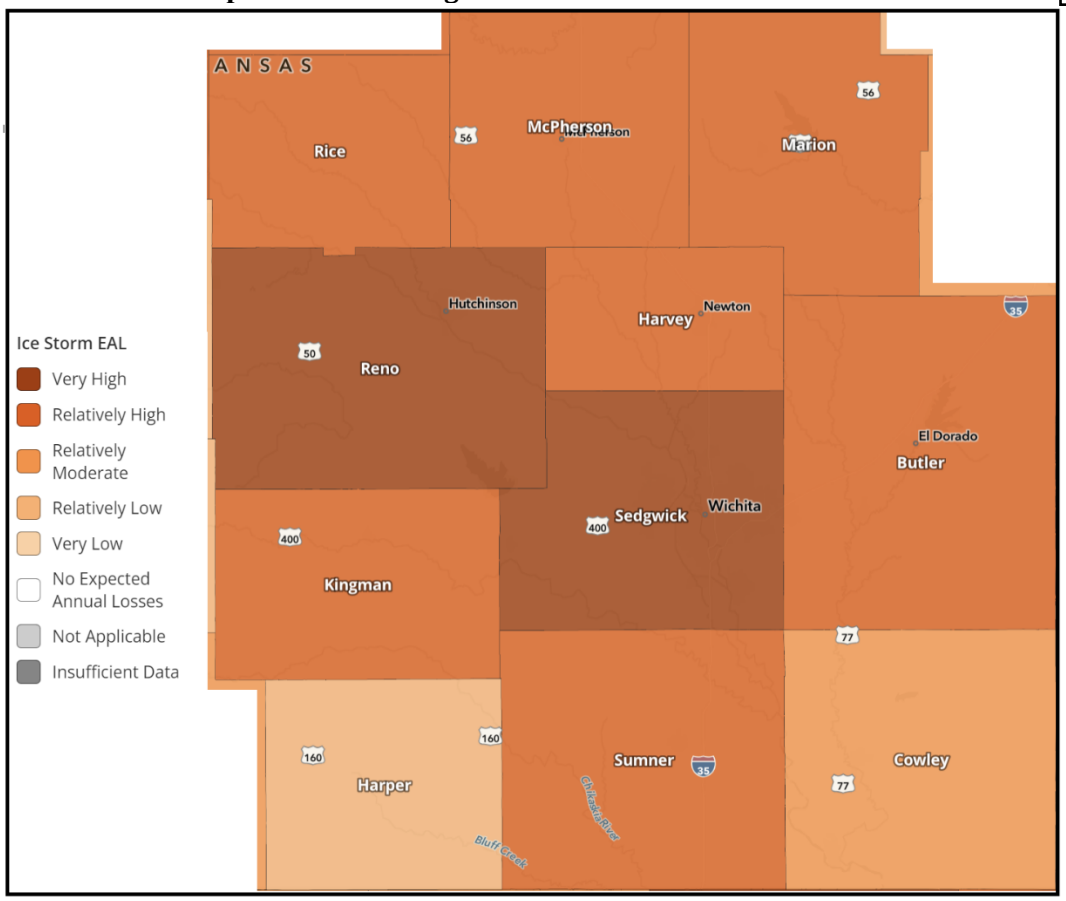
Map 105: Kansas Region G FEMA NRI Winter Weather Risk



Source: FEMA NRI

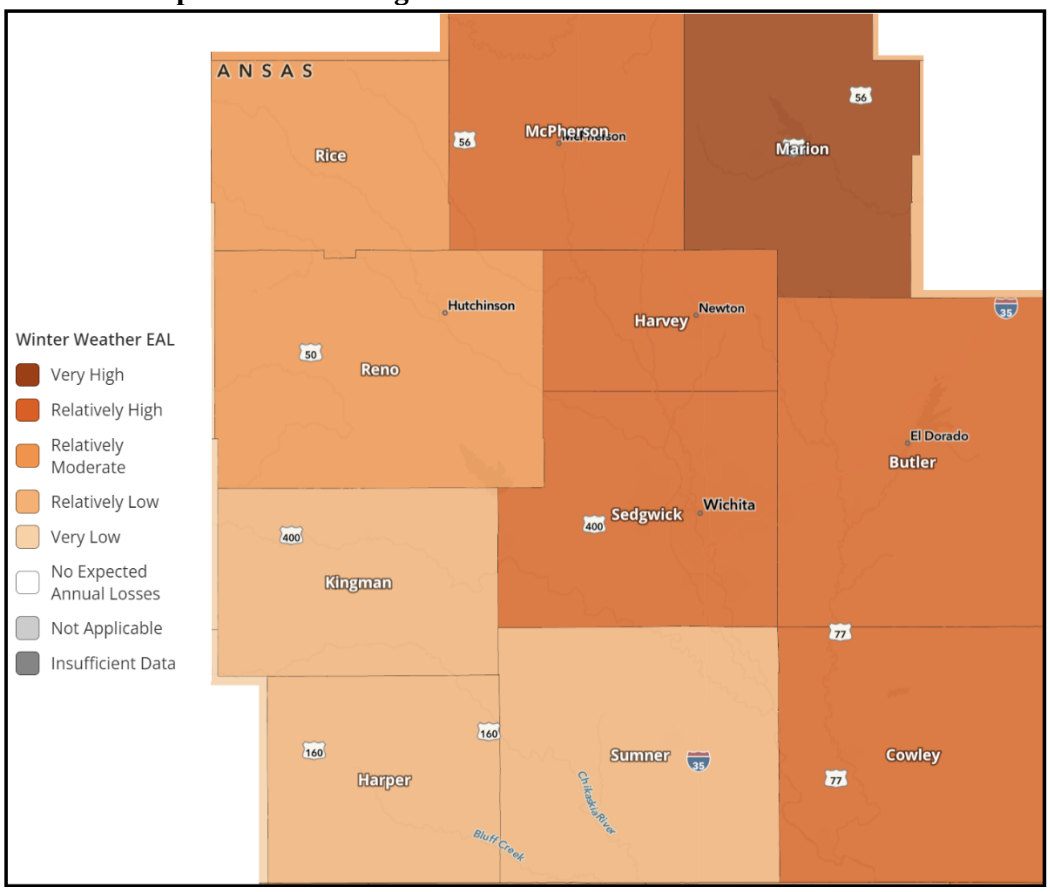
As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for ice storms and winter weather for participating counties within Kansas Region G:

Map 106: Kansas Region G FEMA NRI Ice Storm EAL



Source: FEMA NRI

Map 107: Kansas Region G FEMA NRI Winter Weather EAL



Source: FEMA NRI

The following tables indicates the FEMA NRI and EAL analysis for each participating Kansas Region G county for extreme heat and extreme cold:

Table 122: Kansas Region G FEMA NRI and EAL for Ice Storm by County

County	Risk Index	EAL
Butler	Relatively High	Relatively High
Cowley	Relatively Moderate	Relatively Low
Harper	Relatively Low	Very Low
Harvey	Relatively High	Relatively High
Kingman	Relatively High	Relatively High
Marion	Relatively High	Relatively High
McPherson	Relatively High	Relatively High
Reno	Very High	Very High
Rice	Relatively High	Relatively High
Sedgwick	Very High	Very High
Sumner	Relatively High	Relatively High

Source: FEMA NRI

Table 123: Kansas Region G FEMA NRI and EAL for Winter Weather by County

County	Risk Index	EAL
Butler	Relatively High	Relatively High
Cowley	Relatively Moderate	Relatively High
Harper	Relatively Low	Very Low
Harvey	Relatively High	Relatively High
Kingman	Relatively Low	Very Low
Marion	Relatively High	Very High
McPherson	Relatively High	Relatively High
Reno	Relatively Moderate	Relatively Moderate
Rice	Relatively Moderate	Relatively Moderate
Sedgwick	Relatively High	Relatively High
Sumner	Relatively Moderate	Very Low

Source: FEMA NRI

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 124: Severe Winter Weather Consequence Analysis

Subject	Potential Impacts
Impact on the Public	Freezing temperatures coupled with heavy snow accumulation can cause dangerous travel conditions, leading to accidents and road closures. Downed power lines can lead to a loss of electricity and heat, with the young and the elderly especially vulnerable. Extremely cold temperatures may lead to hypothermia and death.
Impact on Responders	Dangerous road conditions create a transportation challenge for first responders. First responders will need to control their own exposure to the elements for prolonged periods of time and will need to continuously seek heat and shelter to stay warm. Equipment may also be damaged or destroyed due to cold temperatures, heavy wind, ice, and heavy snow fall, which may lead to a decrease in response capabilities.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary. Severe winter weather may impact an agency's ability to maintain operations due to power outages and transportation difficulties. If the activation of alternate facilities was required, travel may be difficult. Additionally, computer/network and other communication access may be impacted due to power outages.
Delivery of Services	The ability to deliver services can be impacted locally, regionally, or statewide depending on the severity of the severe winter weather event. Dangerous road conditions may lead to roadway and bridge closures, as well as transit service disruptions. Businesses and places of commerce may completely shut down, which leads to the disruption of goods and services.
Property, Facilities, and Infrastructure	Transportation, governmental operations, and communications may be heavily disrupted. Roads and bridges may be heavily impacted by severe winter weather, and may be completely obstructed by downed trees, powerlines, and snow accumulation. Snow and ice can impact access to homes and critical facilities such as hospitals, schools, and supermarkets. Power loss can lead to disruption of critical infrastructure and technology.
Impact on Environment	Heavy snow and ice accumulation can weigh down and damage vegetation, tree limbs, and power lines. Flooding may also occur after the rapid melting of a heavy snowfall, causing bodies of water to flood, damaging the surrounding areas. Exposure to extreme winter weather may result in animal death. Chemicals used to treat roadways may contaminate natural environments and water reservoirs if used in large quantities.

Table 124: Severe Winter Weather Consequence Analysis

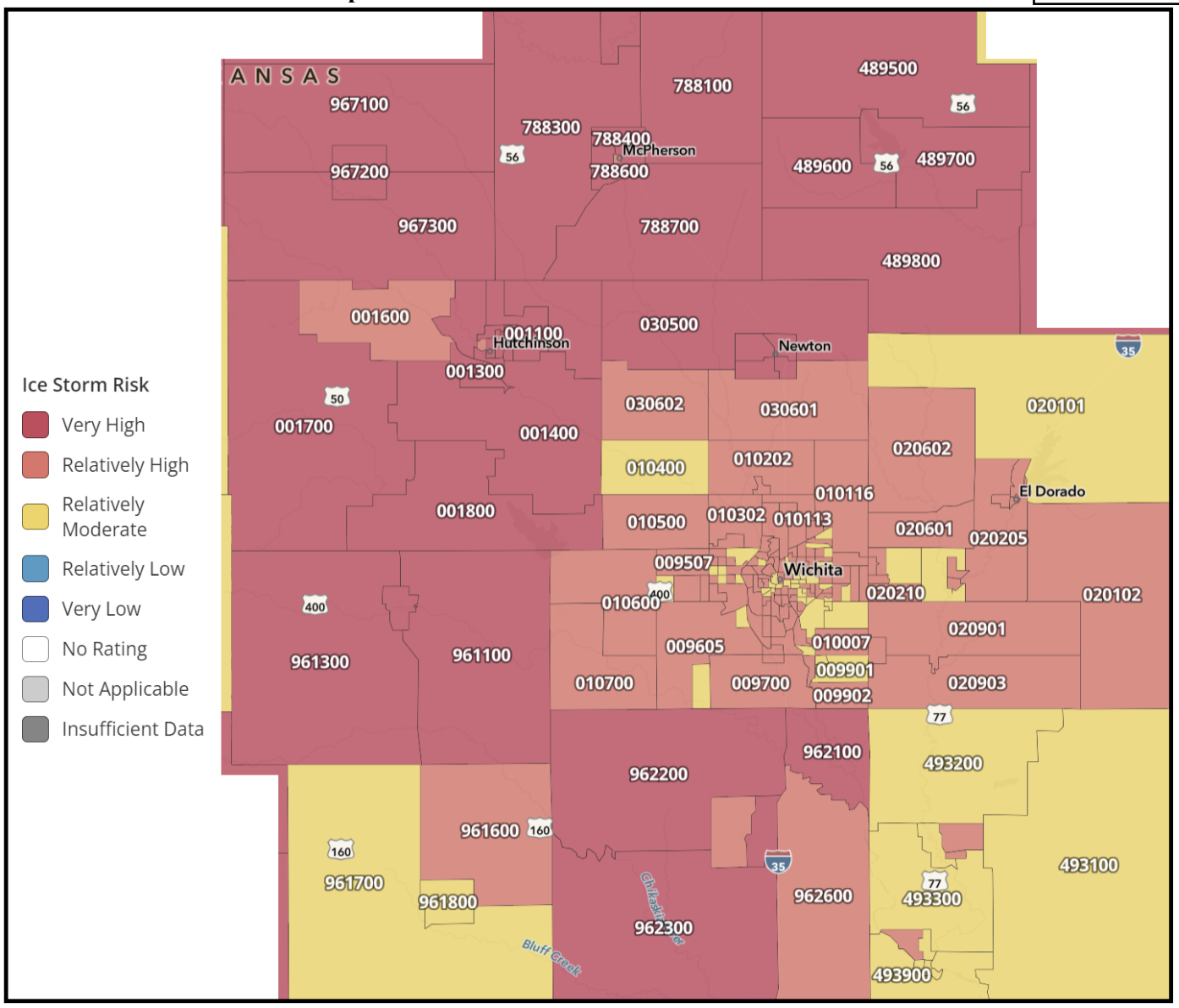
Subject	Potential Impacts
Economic Conditions	Severe winter weather poses a fiscal impact on the governments, even if some of those costs can be recouped through federal grant reimbursements. Local, county, and state resources may be drained by a severe winter weather event.
Public Confidence in Governance	The public's confidence in governance is affected by immediate local and state response through direct and effective actions. Efficiency in response and recovery operations is critical in keeping public confidence high.

4.15.7 Jurisdictional Risk and Vulnerability

To help understand the risk and vulnerability to severe winter weather of participating jurisdictions mapping from the FEMA NRI was run on a census tract level. As the NRI does not generate mapping for individual jurisdictions, census tract analysis is the closest analogue available to understand individual jurisdiction conditions.

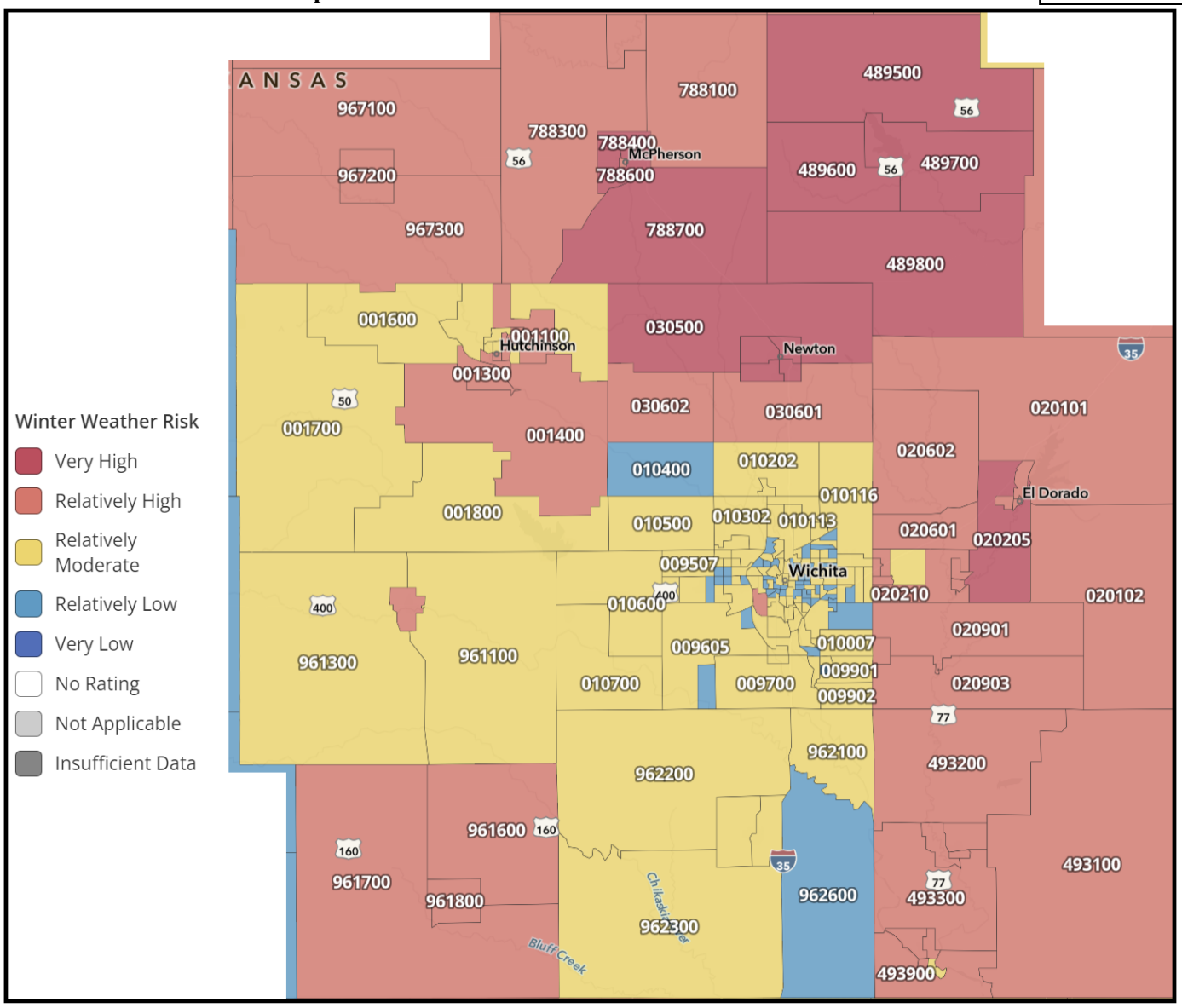
Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating jurisdictions (as indicated by census tract) from ice storms and winter weather events:

Map 108: FEMA NRI Jurisdictional Ice Storm Risk



Source: FEMA NRI

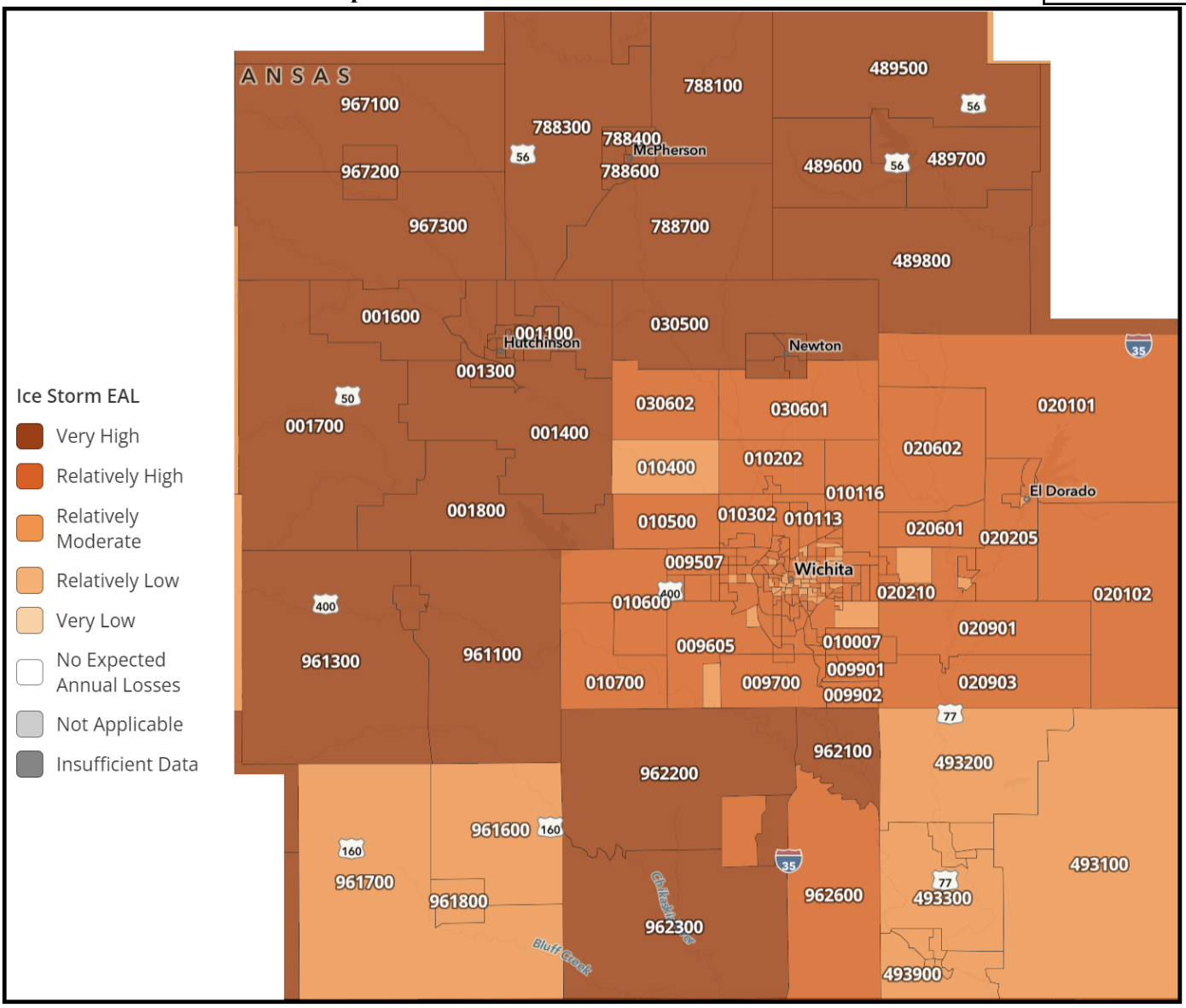
Map 109: FEMA NRI Jurisdictional Winter Weather Risk



Source: FEMA NRI

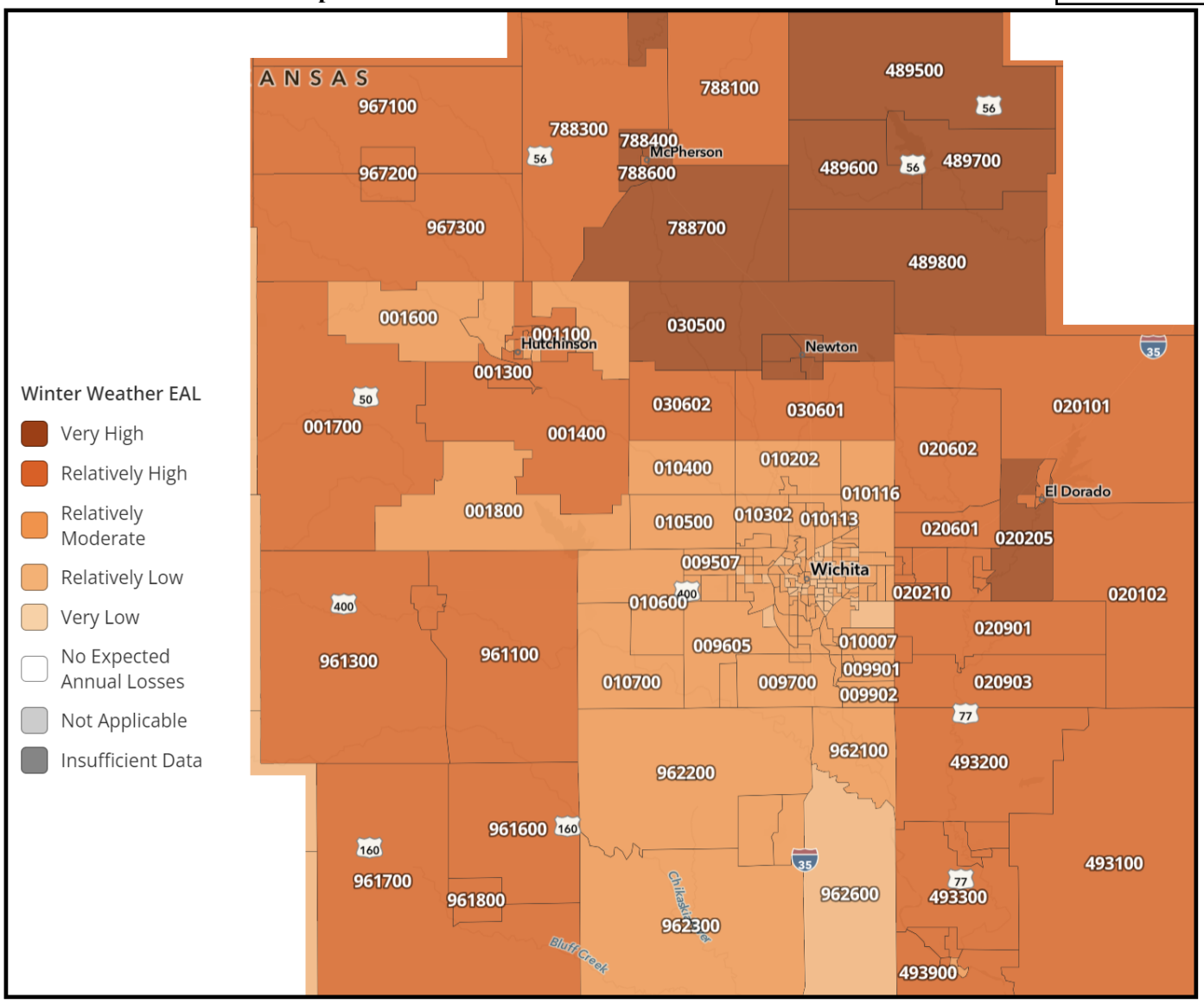
As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for ice storms and winter weather for participating jurisdictions (as indicated by census tract) within Kansas Region G:

Map 110: FEMA NRI Jurisdictional Ice Storm EAL



Source: FEMA NRI

Map 111: FEMA NRI Jurisdictional Winter Weather EAL



Source: FEMA NRI

FEMA NRI data tables, by census tract, are included in Appendix C. These data tables contain the risk index and EAL along with total building valuation and agricultural valuation allowing for an understanding of potential structural and agricultural vulnerability on a jurisdictional basis.

Low temperatures associated with severe winter storms can pose various risks to local facilities and assets, and may include:

- Power Grid Strain: Cold temperatures can lead to increased demand for electricity. This can strain the power grid, potentially causing power outages, which can disrupt government operations, including the functioning of critical infrastructure such as hospitals, emergency services, and data centers.
- Infrastructure Stress: Buildings and infrastructure can suffer damage due to low temperatures. Extreme cold can freeze and damage pipes, leading to water leaks and flooding when temperatures rise.
- Transportation Disruptions: Extreme cold can result in icy road conditions and reduce visibility, making travel hazardous.

Socially vulnerable populations may be more vulnerable to the effects of winter storm events due to extremes in age or the inability to heat and cool homes during an event. Please see Section 3.4 for details on vulnerable populations.

4.16 Tornadoes

4.16.1 Hazard Description

A tornado is a violent, dangerous, rotating column of air that is in contact with both the surface of the earth and a cumulonimbus cloud or, in rare cases, the base of a cumulus cloud. Tornadoes come in many shapes and sizes but are typically in the form of a visible condensation funnel, whose narrow end touches the earth and is often encircled by a cloud of debris and dust.

Tornadoes can cause several kinds of damage to buildings. Tornadoes have been known to lift and move objects weighing more than three tons, toss homes more than 300 feet from their foundations, and siphon millions of tons of water. However, less spectacular damage is much more common. Houses and other obstructions in the path of the wind cause the wind to change direction. This change in wind direction increases pressure on parts of the building. The combination of increased pressures and fluctuating wind speeds creates stress on the building that frequently causes connections between building components, roofing, siding, and windows to fail. Tornadoes can also generate a tremendous amount of flying debris. If wind speeds are high enough, airborne debris can be thrown at buildings with enough force to penetrate windows, roofs, and walls.

4.16.2 – Location and Extent

Tornadoes can strike anywhere in Kansas Region G. A tornado may arrive with a squall line or cold front and touch down quickly. Smaller tornadoes can strike without warning. Other times tornado watches and sirens will alert communities of high potential tornado producing weather or an already formed tornado and its likely path.

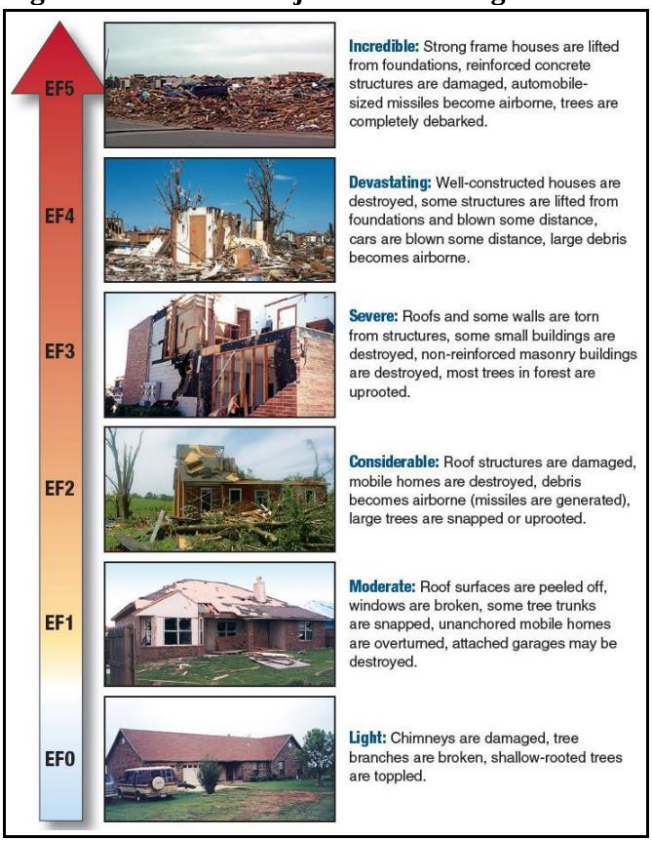
Since 2007, the United States uses the Enhanced Fujita (EF) Scale to categorize tornadoes. The scale correlates wind speed values per F level and provides a rubric for estimating damage.

Table 125: 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 distance.
EF4	166-200	0.7%	Devastating. Well-constructed houses and whole frame houses completely leveled; cars thrown, and small missiles generated.
EF5	>200	<0.1%	Explosive. Strong frame houses leveled 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

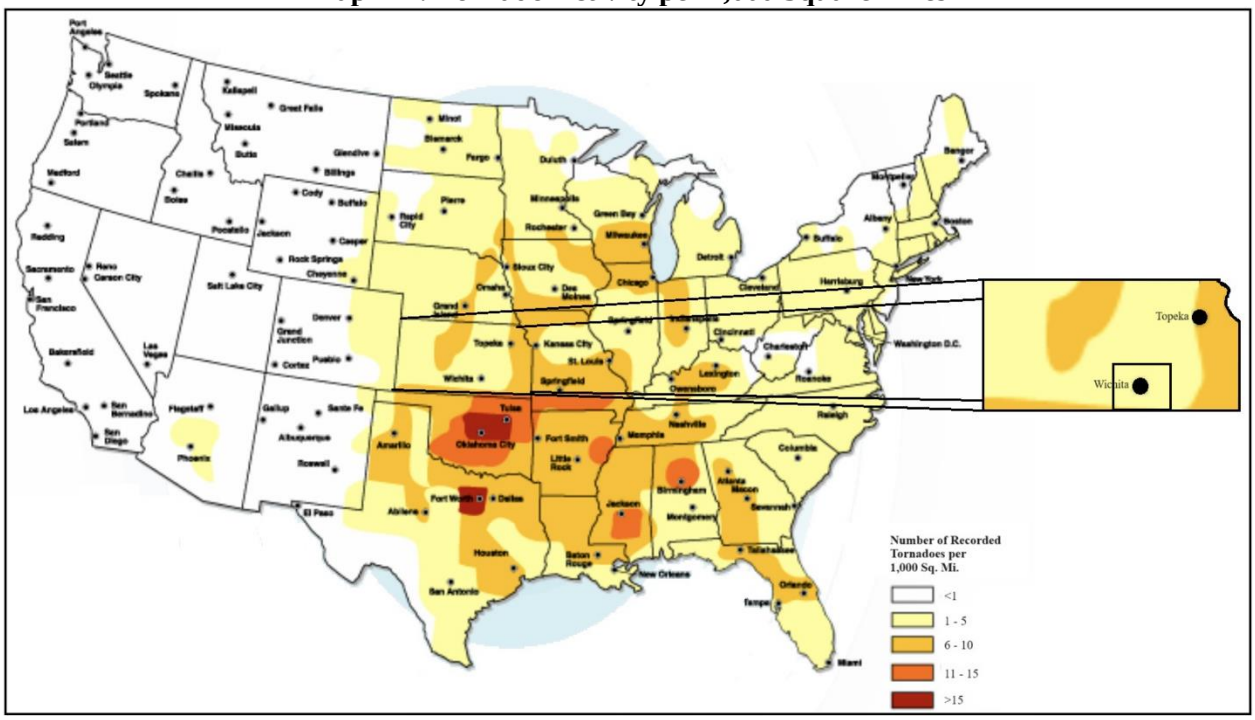
Figure 4: Enhanced Fujita Scale Damage Estimates



Source: FEMA

The following map, from FEMA, indicates tornado activity per 1,000 square miles for Kansas Region.

Map 112: Tornado Activity per 1,000 Square Miles



Source: FEMA

4.16.3 Previous Occurrences

Historical events of significant magnitude or impact can result in a Presidential Disaster Declaration. The following table details Presidential Disaster Declarations related to tornadoes.

Table 126: Kansas Region G Presidentially Declared Disasters

Designation	Declaration Date	Incident Type	Counties	Assistance
DR-4499-KS	08/14/2019	Severe Storms, Straight-Line Winds, Flooding, Tornadoes, Landslides, and Mudslides	Butler, Cowley, Harper, Harvey, Kingman, Marion, McPherson, Reno, Rice, and Sumner	$51,157,548

The following table presents NCEI identified tornado events and the resulting damage totals in Kansas Region G from 2009 to 2023.

Table 127: Kansas Region G Tornado Events

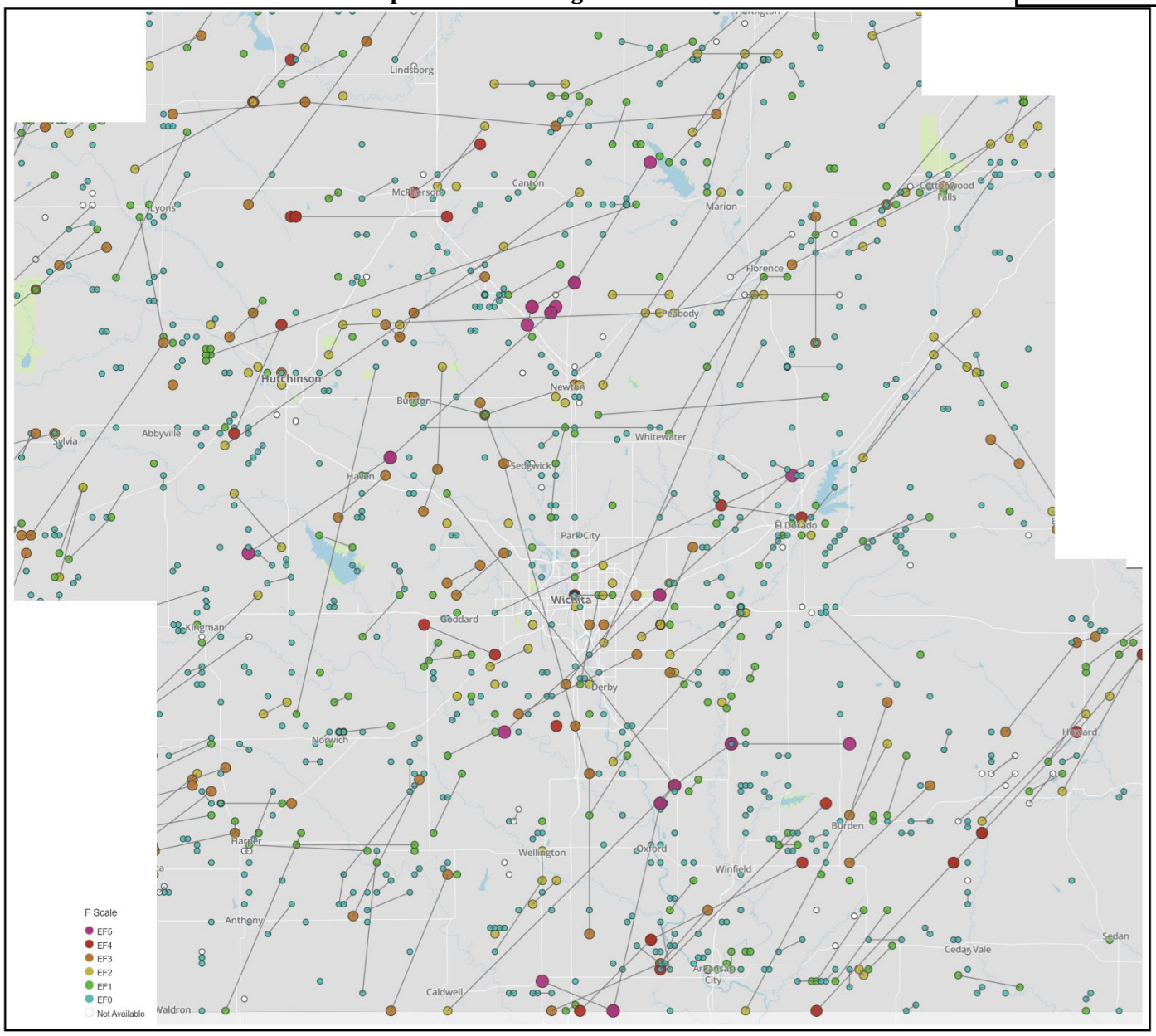
County	Number of Events	Property Damage	Deaths or Injuries	Highest Rated Tornados	Number of EF2 or Greater Tornadoes
Butler	14	$37,038,000	1	EF3	1
Cowley	15	$420,000	0	EF2	1
Harper	6	$0	0	EF3	1
Harvey	4	$30,000	0	EF2	1
Kingman	10	$125,000	0	EF3	2
Marion	5	$100,000	0	EF1	0
McPherson	7	$290,000	0	EF1	0
Reno	11	$380,000	0	EF3	1
Rice	7	$75,000	0	EF2	1
Sedgwick	10	$505,235,000	43	EF3	4
Sumner	12	$125,000	0	EF3	1

Source: NCEI

It is worth noting that damage estimates indicated by the NCEI are often artificially low. This underreporting is a result of the way the events are reported to the NCEI, often by the local and/or NWS office. When reporting an event oftentimes the NWS office does not have access to the actual damage assessment resulting from that event. As such, the report often details a very low amount or zero-dollar amount for damages. Additionally, deaths and injuries may be underreported as they may be a result of a concurrent event, such as a person driving unsafely during heavy rain and passing away.

NOAA has been tracking tornadoes in Kansas for decades. This following map, which contains data from 1950 to 2023, pinpoints where tornadoes have touched down and traces its path.

Map 113: Kansas Region G Tornado Paths



Source: NOAA

4.16.4 Probability of Future Events

Predicting the probability of tornado occurrences is tremendously challenging due to the large number of factors involved and the random nature of formation. Based on historical occurrences, Kansas Region G will continue to experience tornado events on an annual basis. The following tables, using data from the NCEI, indicate the yearly probability of a tornado event, the number of deaths or injuries, and estimated property damage for each county in Kansas Region G.

Table 128: Kansas Region G NCEI Tornado Event Probability Summary

County	Days with Event	Average Events per Year	Deaths / Injuries	Average Deaths / Injuries per Year	Property Damage	Average Property Damage per Year
Butler	14	1	1	<1	$37,038,000	$2,469,200
Cowley	15	1	0	0	$420,000	$28,000
Harper	6	<1	0	0	$0	$0

Table 128: Kansas Region G NCEI Tornado Event Probability Summary

County	Days with Event	Average Events per Year	Deaths / Injuries	Average Deaths / Injuries per Year	Property Damage	Average Property Damage per Year
Harvey	4	<1	0	0	$30,000	$2,000
Kingman	10	1	0	0	$125,000	$8,333
Marion	5	<1	0	0	$100,000	$6,667
McPherson	7	<1	0	0	$290,000	$19,333
Reno	11	1	0	0	$380,000	$25,333
Rice	7	<1	0	0	$75,000	$5,000
Sedgwick	10	1	43	3	$505,235,000	$33,682,333
Sumner	12	1	0	0	$125,000	$8,333

Source: NCEI

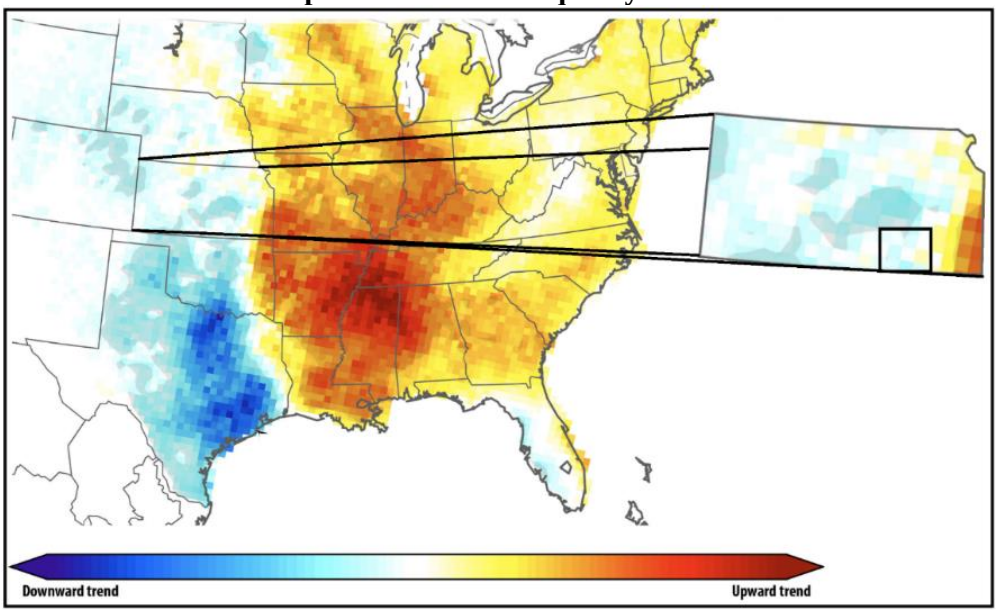
4.16.5 Projected Changes in Location, Intensity, Frequency, and Duration

The relationship between climate change and tornadoes is complex, and while there is ongoing research in this area, it is not fully understood. Tornadoes are small-scale, short-lived weather phenomena that can be influenced by a variety of atmospheric factors, including temperature, humidity, wind patterns, and atmospheric instability. Climate change can influence some of these factors, which may, in turn, affect tornado activity. Tornadoes typically form when warm, moist air near the surface clashes with cooler, drier air aloft, creating atmospheric instability. Climate change can alter temperature and humidity patterns, potentially affecting the conditions necessary for tornado formation. Additionally, climate change can lead to more extreme and variable weather patterns. While this may not necessarily increase the overall number of tornadoes, it could lead to more unpredictable and severe tornado events when they do occur. Some research suggests that climate change could lead to longer tornado seasons, with tornadoes occurring outside of their typical timeframes.

It's important to emphasize that while there may be some links between climate change and tornado activity, these links are not fully understood, and it is difficult to attribute specific tornado events to climate change. Tornadoes are influenced by a complex interplay of factors, and any changes in tornado patterns may vary by region.

Research conducted by the National Severe Storms Lab looked at Significant Tornado Parameters to help determine future tornado probability. Significant Tornado Parameters are a measurement of the major parameters of tornado conditions, including wind speed and direction, wind at differing altitudes, unstable air patterns, and humidity. The following map, generated by Northern Illinois University and compiled from Significant Tornado Parameter data, indicates that Kansas Region G may see a decreasing number of tornados.

Map 114: Tornado Frequency Trends



Source: Northern Illinois University

4.16.6 Vulnerability and Impact

While difficult to quantify, as the impacts of future tornadoes will be determined by many factors, the impacts of a tornado may be widespread. An EF4 or EF5 tornado has the potential to level facilities. A lesser magnitude tornado can rip off roofs and walls while launching airborne missiles born from debris. In the absence of proper shelter tornadoes can cause serious injury. In general, if potentially exposed persons take shelter in a solid, well-constructed shelter protection from tornadoes would be provided. However, old or poorly constructed facilities may be more prone to damage, potentially increasing the impact on economically disadvantaged populations.

Tornadoes can have significant and often devastating impacts on people and communities. These impacts can vary depending on the tornado's intensity, size, path, and may include:

- Injuries and Fatalities: Tornadoes can cause a wide range of injuries, from minor cuts and bruises to severe trauma. Flying debris, structural damage, and the force of the wind can lead to injuries or fatalities among those directly affected by the tornado. Prompt medical care is essential to treat injuries effectively and save lives.
- Mental Health Effects: Tornadoes can be extremely traumatic events, causing psychological distress and emotional trauma for survivors. Individuals may experience post-traumatic stress disorder, anxiety, depression, and grief. Mental health support and counseling services are often needed to help survivors cope with these emotional challenges.
- Displacement: People may need to evacuate their homes or be temporarily displaced due to tornado damage, requiring emergency shelter and support.

After a tornado, health risks may arise due to contaminated water, debris, and unsafe conditions. Inadequate sanitation and exposure to harsh weather can exacerbate health issues. Children, the elderly, and individuals with disabilities or limited mobility may face additional challenges in evacuating to safety and accessing needed resources.

Tornadoes can have significant and wide-ranging impacts on facilities, critical facilities, and critical infrastructure. These risks can have significant economic and operational consequences, and can include:

- Critical Facility Damage: Hospitals and healthcare facilities may be damaged or rendered inoperable during tornadoes, affecting the ability to provide medical care during a disaster. Fire stations, police stations, and emergency operation centers may be damaged or destroyed, impacting the ability of first responders to coordinate disaster response efforts. Damage to emergency shelters and housing facilities can disrupt services which are critical for providing temporary shelter to displaced individuals and families.

- Infrastructure Damage: High winds and blowing debris can cause considerable damage to infra
can result in costly repairs and disruptions to daily lives for an extended period.
- Power Outages: Tornadoes can cause power outages by bringing down power lines and damaging electrical infrastructure. Critical facilities such as hospitals, emergency response centers, and data centers may rely on backup generators to maintain essential operations during outages.
- Communication Disruptions: Tornadoes can damage communication infrastructure, including cell towers, telephone lines, and data centers, leading to disruptions in phone and internet services. This can hinder emergency communication and coordination, affecting critical response efforts.
- Transportation Disruptions: Debris and fallen trees on roads, runways, and railways can disrupt transportation networks, leading to travel delays, accidents, and closures. Critical facilities may face challenges in receiving essential supplies and personnel during and after the storm.
- Healthcare System Strain: Hospitals and healthcare facilities may experience increased demand for medical services due to storm-related injuries and illnesses.
- Water and Wastewater System Interruptions: Tornadoes can damage water treatment plants, pumping stations, and water distribution systems. This can lead to a loss of clean drinking water and sanitation services, posing health risks to affected communities. Damage to wastewater treatment facilities and sewer systems can result in the release of untreated sewage, creating environmental hazards and public health concerns.
- Fuel Supply Disruptions: Tornadoes disrupt fuel supply chains, leading to shortages of gasoline, diesel, and heating oil. Critical facilities may rely on fuel for backup power generators and heating systems.
- Property Damage: Tornadoes can result in property damage, up to and including complete structural collapse.

Tornadoes can have significant impacts on the environment. These impacts are often destructive and can affect ecosystems, wildlife, natural resources, and even the local climate. Tornadoes can disrupt natural habitats by uprooting or damaging trees, destroying vegetation, and altering landscapes. This can affect the habitat suitability for wildlife and plant species. Tornadoes can harm or displace wildlife, resulting in injury or death. Nesting birds, burrowing mammals, and other species can be particularly vulnerable. As tornadoes can transport plant seeds, insects, and other organisms over long distances, in the aftermath it is possible for invasive species to take root in new areas, especially those impacted by wildfires caused by downed utility lines.

Tornadoes can have significant and wide-ranging impacts on local operations and facilities. When tornadoes strike, they can disrupt government functions, damage critical infrastructure, and strain resources. Some of the key impacts of tornadoes on operations and facilities may include:

- Emergency Response and Public Safety: Tornadoes can lead to a surge in emergency calls for services related to accidents, injuries, and damaged structures. State agencies involved in emergency response must mobilize additional resources to handle these demands.
- Emergency Operations Centers: Tornadoes often require the activation of state Emergency Operations Centers to coordinate emergency response efforts. These centers serve as hubs for communication, resource allocation, and decision-making during disasters.
- Emergency Shelters and Services: Tornadoes may require the establishment of emergency shelters and services for displaced residents. State agencies must coordinate the setup and operation of these facilities.
- Education Disruption: Tornadoes can lead to school closures, affecting state-run education programs and services. State agencies may need to coordinate with school districts to ensure the safety of students.
- Budgetary Impact: The costs associated with emergency response efforts, disaster recovery, and infrastructure repair can strain state budgets.
- Communication Challenges: Tornadoes can disrupt communication networks, hindering the ability of government agencies to communicate internally and with the public. This can impact emergency notifications and coordination efforts.
- Administrative and Governance Challenges: Government offices and facilities may experience closures or reduced staffing during tornadoes, affecting administrative functions, regulatory processes, and public services.

- Economic Impact: The destruction of infrastructure and businesses can have significant economic for the state and local communities, including job losses and reduced economic activity.
- Public Services: Tornadoes can disrupt the delivery of public services, including transportation, utilities, and social services, affecting the well-being of residents.

Potentially Vulnerable Community Lifelines

Tornadoes can impact various community lifelines, critical systems and services that communities rely on for their functioning. Vulnerabilities arise due to the stress that tornadic conditions place on infrastructure, resources, and operational processes. As an overview, the May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report indicates the following loss values for community lifelines:

Table 129: Economic Impacts of Loss of Service Per Capita Per Day (in 2022 dollars)

Category	Loss
Loss of Electrical Service	$199
Loss of Communications/Information Technology Services	$141

Source: May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report

The high winds associated with smaller tornadoes can cause trees, branches, and other debris to fall onto power lines. Higher intensity tornadoes can destroy transmission infrastructure. This can result in downed power lines, structural damage to utility poles, and disruptions in electrical service.

In order to reduce plan duplication, mapping concerning electrical generation plants, high-capacity transmission lines, and electrical utility providers as well as utility repair and replacement cost estimation provides may be found in Section 4.9.6, Maps 33 and 34 and Chart 15.

Communications systems within Kansas Region G may have an increased vulnerability to tornado events. Of particular concern are 911 and dispatch systems. All jurisdictions are served by a 911 and dispatch system, providing direct dispatching for:

- Law Enforcement
- Emergency Medical Services
- Fire

Tornadoes can disrupt this vital communications system, affecting reliability and functionality. Some of the key vulnerabilities include:

- Structural Damage to Communication Towers: Tornadoes can cause direct structural damage to communication towers, including cellular, television, radio, and microwave towers. Toppled or damaged towers can disrupt signal transmission and reception.
- Power Outages: Tornadoes often cause power outages by damaging electrical infrastructure. Communication facilities, including cell towers and data centers, rely on a stable power supply. Power failures can lead to service interruptions.
- Fiber Optic Cable Damage: Flying debris and tornado-related destruction can damage underground and aerial fiber optic cables. Severed cables can disrupt data transmission and internet connectivity.
- Microwave Link Disruptions: Tornadoes can interfere with microwave communication links, which are used for long-distance communication. High winds and debris can disrupt the line of sight needed for these links.
- Equipment Damage: Communication equipment located outdoors, such as antennas, dishes, and amplifiers, can be damaged by tornadoes, affecting the performance of communication systems.
- Loss of Communication Nodes: Tornadoes can damage communication nodes, exchanges, and network switching centers. Loss of these critical components can lead to widespread service disruptions.

- Cellular Network Congestion: In the aftermath of a tornado, there is often an increased dema communication as individuals seek information and contact loved ones. This surge in demand can lead to network congestion and reduced service quality.

The cost to repair communications networks can vary widely depending on the extent of the damage, the size of the network, and the specific technologies involved. Repair costs may include expenses for labor, equipment replacement or repair, materials, and any additional resources required to restore the network to full functionality. The following data, from the U.S. Department of Homeland Security Cybersecurity and Infrastructure Security Agency, indicates cost ranges for communications system components:

Table 130: Summary of Communication System Component Costs

Components	Examples	Cost	Expected Lifespan
Infrastructure	Towers, shelters, commercial and backup power equipment,	$$$–$$$$$	20–25 years
Fixed Station Equipment	Antennas, repeaters, towers on wheels, consoles, mobile stations, servers, computers, physical and electronic security elements (e.g., fencing, cameras, monitors, environmental conditions)	$$-$$$	3-15 years
Devices	Handheld portable radios, cellular phones, satellite phones, mobile data devices	$-$$	2-10 years
Accessories	Holsters, chargers, speakers, lapel microphone extensions, Bluetooth, vehicle kits, aircards, intercoms	$	2-10 years
Features	Encryption to protect against security risks, ruggedization to ensure reliant services, Over-the-Air-Programming, automatic roaming	$-$$$	-
Software and Data Storage	Global information system, emergency notifications, monitoring, call answering, database access, Automatic Vehicle Locator	$-$$	-

Source: U.S. Department of Homeland Security Cybersecurity and Infrastructure Security Agency

Tornadoes can significantly impact emergency response infrastructure, creating challenges for first responders and organizations involved in managing and mitigating the effects of severe weather events. Tornadoes can impact emergency response through:

- Transportation Disruptions: Debris on roads can hinder the ability of emergency vehicles to navigate and reach affected areas promptly. Hazardous road conditions may result in delays in response times.
- Road Closures: Tornadoes can lead to the closure of roads due to debris accumulation and hazardous conditions. This can limit access for emergency vehicles and impede the evacuation of residents.
- Communication Disruptions: Tornadoes can disrupt communication networks, affecting the ability of emergency responders to coordinate and communicate effectively. Downed power lines and damage to communication infrastructure contribute to these disruptions.
- Power Outages: Tornadoes downing power lines can lead to power outages. Emergency response facilities, such as command centers and fire stations, may lose power, affecting their operational capabilities.
- Resource Allocation Challenges: Tornadoes often require the allocation of additional resources, including personnel, equipment, and supplies, to address immediate needs. This can strain emergency response organizations and impact their ability to respond to other concurrent incidents.
- Logistical Challenges: Tornadoes may create logistical challenges for the transportation of supplies, equipment, and personnel to affected areas, hindering the overall effectiveness of emergency response efforts.
- Increased Demand for Services: Tornadoes can result in an increased demand for emergency services, including medical assistance, search and rescue operations, and responses to accidents. Emergency response organizations may need to manage a higher volume of incidents simultaneously.

In order to reduce plan duplication, mapping concerning fire and police locations may be found in 4.14.6 89.

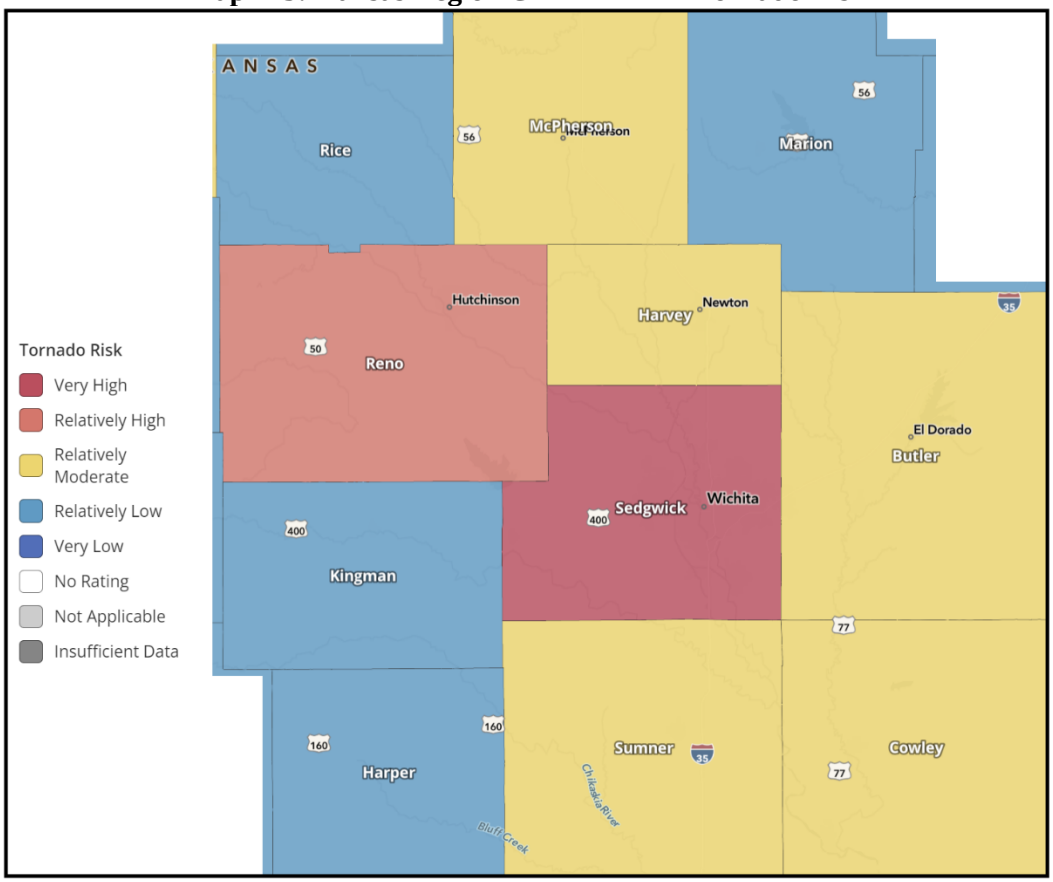
Hospitals and other smaller medical facilities may see an increase in tornado related injuries during an event, but it is considered unlikely that this increase will impact or overload capacity. Hospital capacity mapping may be found in Section 4.9.6, Map 35.

Tornadoes can increase the demand for emergency shelters, particularly in cases of widespread power outages. Setting up and managing these shelters can strain resources.

FEMA NRI

Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating counties from tornadoes:

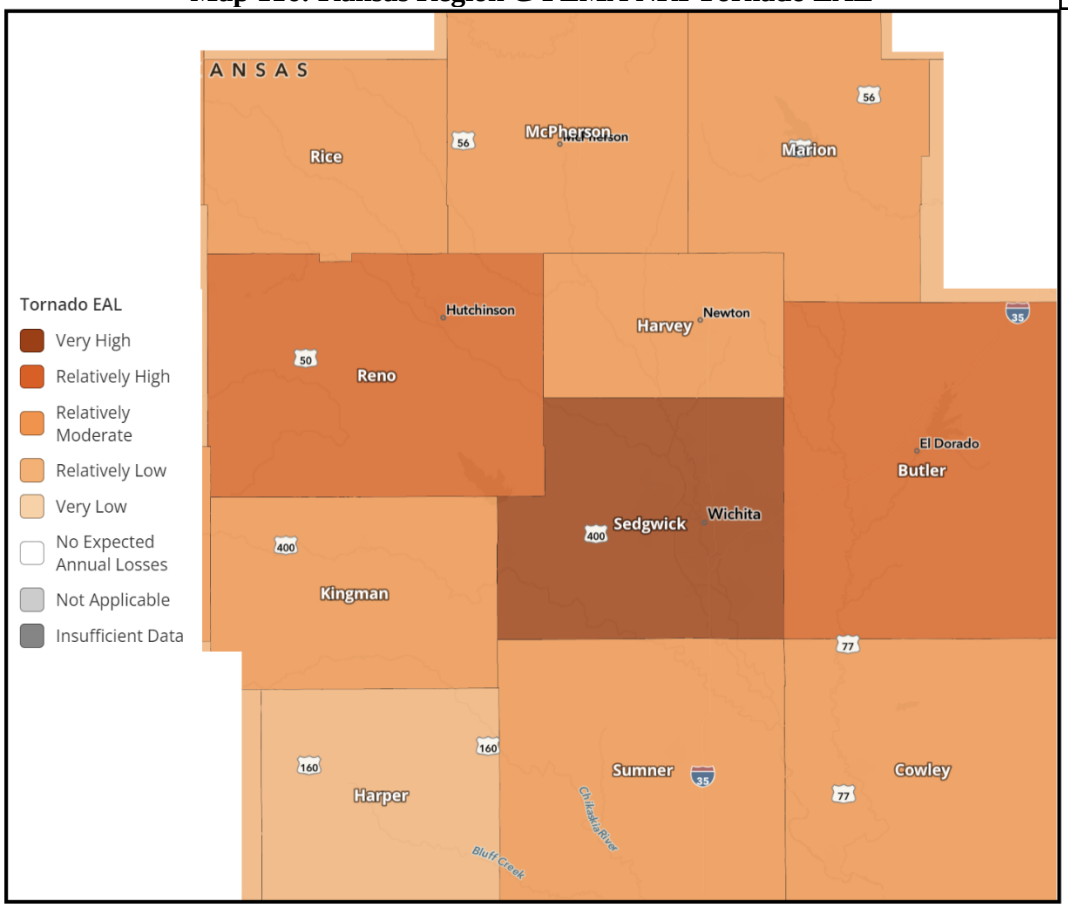
Map 115: Kansas Region G FEMA NRI Tornado Risk



Source: FEMA NRI

As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for tornadoes for participating counties within Kansas Region G:

Map 116: Kansas Region G FEMA NRI Tornado EAL



Source: FEMA NRI

The following table indicates the FEMA NRI and EAL analysis for each participating Kansas Region G county for tornado:

Table 131: Kansas Region G FEMA NRI and EAL for Tornadoes by County

County	Risk Index	EAL
Butler	Relatively Moderate	Relatively High
Cowley	Relatively Moderate	Relatively Moderate
Harper	Relatively Low	Relatively Low
Harvey	Relatively Moderate	Relatively Low
Kingman	Relatively Low	Relatively Moderate
Marion	Relatively Low	Relatively Moderate
McPherson	Relatively Moderate	Relatively Moderate
Reno	Relatively High	Relatively High
Rice	Relatively Low	Relatively Moderate
Sedgwick	Very High	Very High
Sumner	Relatively Moderate	Relatively Moderate

Source: FEMA NRI

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 132: Tornado Consequence Analysis

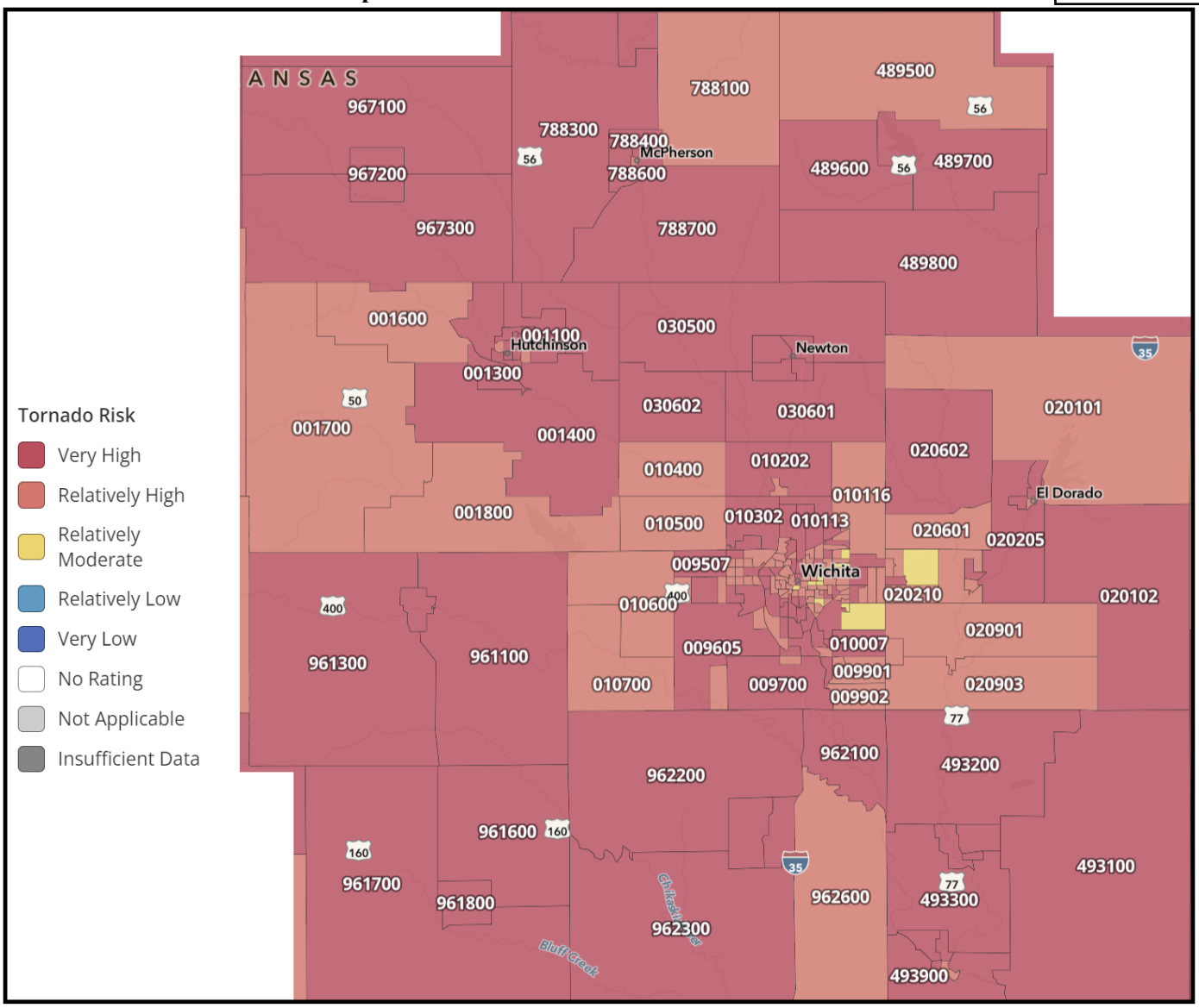
Subject	Potential Impacts
Impact on the Public	High wind speeds can cause automobiles to become airborne, destroy homes, and turn debris into projectiles, which may cause injury or death. An increased demand for medical treatment for traumatic injuries caused by the tornado would be anticipated. Significant portions of the population may be displaced by the destruction and those individuals may not have access to personal documents or medical records.
Impact on Responders	First responders may be injured as the tornado passes, resulting in employee absenteeism that impacts the overall capacity to respond to the event. The deposit of debris on major roadways, the location of the event, and/or damage to equipment or facilities may increase the response times. Exposed wires or hazardous materials may cause injury to first responders during search and rescue operations.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. Tornadoes may impact an agency's ability to maintain continuity of operations due to power or communications infrastructure impacts. If the activation of alternate facilities was required, travel may be difficult due to reduced transportation options, power outages, or damage to facilities.
Delivery of Services	Delivery of services may be impacted by dangerous conditions or disruption to transportation systems, causing food, water, and resource systems to be delayed or halted. Waterway infrastructure may be damaged or malfunction, stopping barge and ship traffic. Goods may be damaged, destroyed, or carried off by high winds.
Property, Facilities, and Infrastructure	Damages from lower intensity tornadoes can range from chimney damage to uprooted shallow trees. A significant tornado (EF-2) would cause damage to roofs on frame houses, complete destruction of mobile homes and large trees and utility lines snapping. A devastating tornado (EF-4) would result in well-constructed houses being leveled, weak foundations blown away, and cars thrown away. Communications or power infrastructure may be damaged or destroyed.
Impact on Environment	Tornadoes may cause significant damage to the environment by exposing hazardous materials, causing contamination of water or food sources, or uprooting vegetation. Animals may be injured by flying debris or being lifted by the tornado. Agricultural crops may be lost due to contamination or being uprooted.
Economic Conditions	Tornadoes pose a fiscal impact on the local governments, even if some of those costs can be recouped through federal grant reimbursements. Fiscal resources may be drained by the occurrence of a tornado.
Public Confidence in Governance	The public's confidence in governance is affected by immediate local and state response through direct and effective actions. Efficiency in response and recovery operations is critical in keeping public confidence high.

4.16.7 Jurisdictional Risk and Vulnerability

To help understand the risk and vulnerability to tornadoes of participating jurisdictions mapping from the FEMA NRI was run on a census tract level. As the NRI does not generate mapping for individual jurisdictions, census tract analysis is the closest analogue available to understand individual jurisdiction conditions.

Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating jurisdictions (as indicated by census tract) from tornadoes:

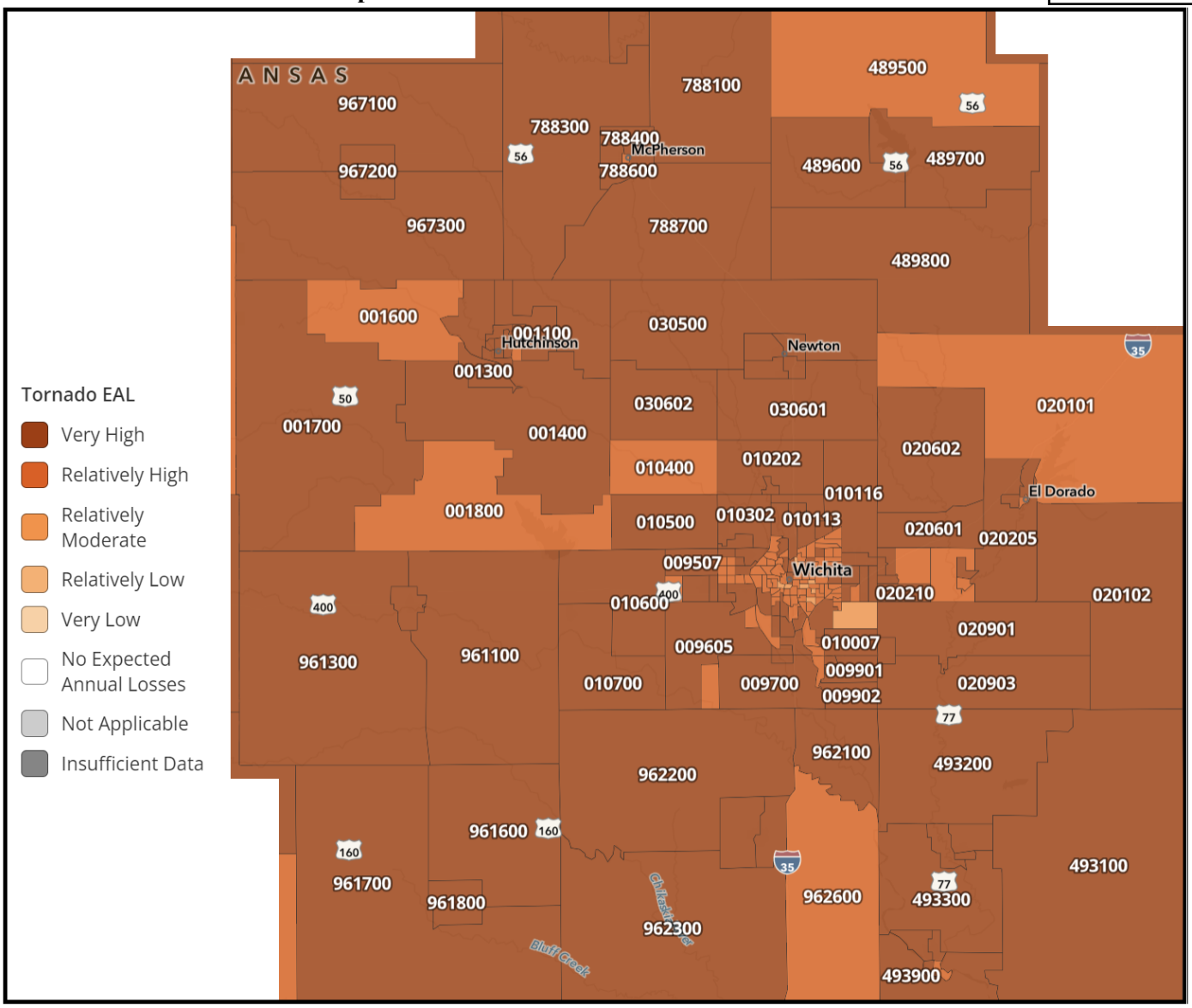
Map 117: FEMA NRI Jurisdictional Tornado Risk



Source: FEMA NRI

As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for tornadoes for participating jurisdictions (as indicated by census tract) within Kansas Region G:

Map 118: FEMA NRI Jurisdictional Tornado EAL



Source: FEMA NRI

FEMA NRI data tables, by census tract, are included in Appendix C. These data tables contain the risk index and EAL along with total building valuation and agricultural valuation allowing for an understanding of potential structural and agricultural vulnerability on a jurisdictional basis.

Kansas Region G citizens living in mobile homes may have an increased vulnerability to tornadoes. Please see section 3.6 for more details on the percentage of mobile homes for each participating county

4.17 Wildfires

4.17.1 Hazard Description

The NWS defines a wildfire as any free burning uncontainable wildland fire not prescribed for the area which consumes the natural fuels and spreads in response to its environment. They can occur naturally, by human accident, and on rare occasions by human action. Population de-concentration in the U.S. has resulted in rapid development in the outlying fringe of metropolitan areas and in rural areas with attractive recreational and aesthetic amenities, especially forests. This expansion has increased the likelihood that wildfires will threaten life and property.

According to the National Park Service there three classifications of wildfires:

- **Surface Fire:** Burning which may spread rapidly and ignites leaf litter, fallen branches and other fuels located at ground level.
- **Ground Fire:** Burning of organic matter in the soil beneath the surface.
- **Crown Fire:** Burning through the top layer (canopy) of trees. Crown fires, which can be very intense and difficult to contain, require strong winds, steep slopes, and large amounts of fuel to burn.

Wildfires are strongly influenced by multiple factors, including:

- **Weather:** Factors such as relative humidity, wind speed, ambient temperature and precipitation all influence the formation and growth of wildfires.
- **Topography:** Natural features, such as canyons or ridges, can increase the spread rate of a fire by funneling or drawing heated air and fire.
- **Fuel Type, Distribution and Moisture:** Available fuels, the spacing and density of available fuels, and fuel moisture content can determine spread rates and intensity of wildfires.
- **Drought Conditions:** Drought tends to increase both the likelihood and severity of wildfires.

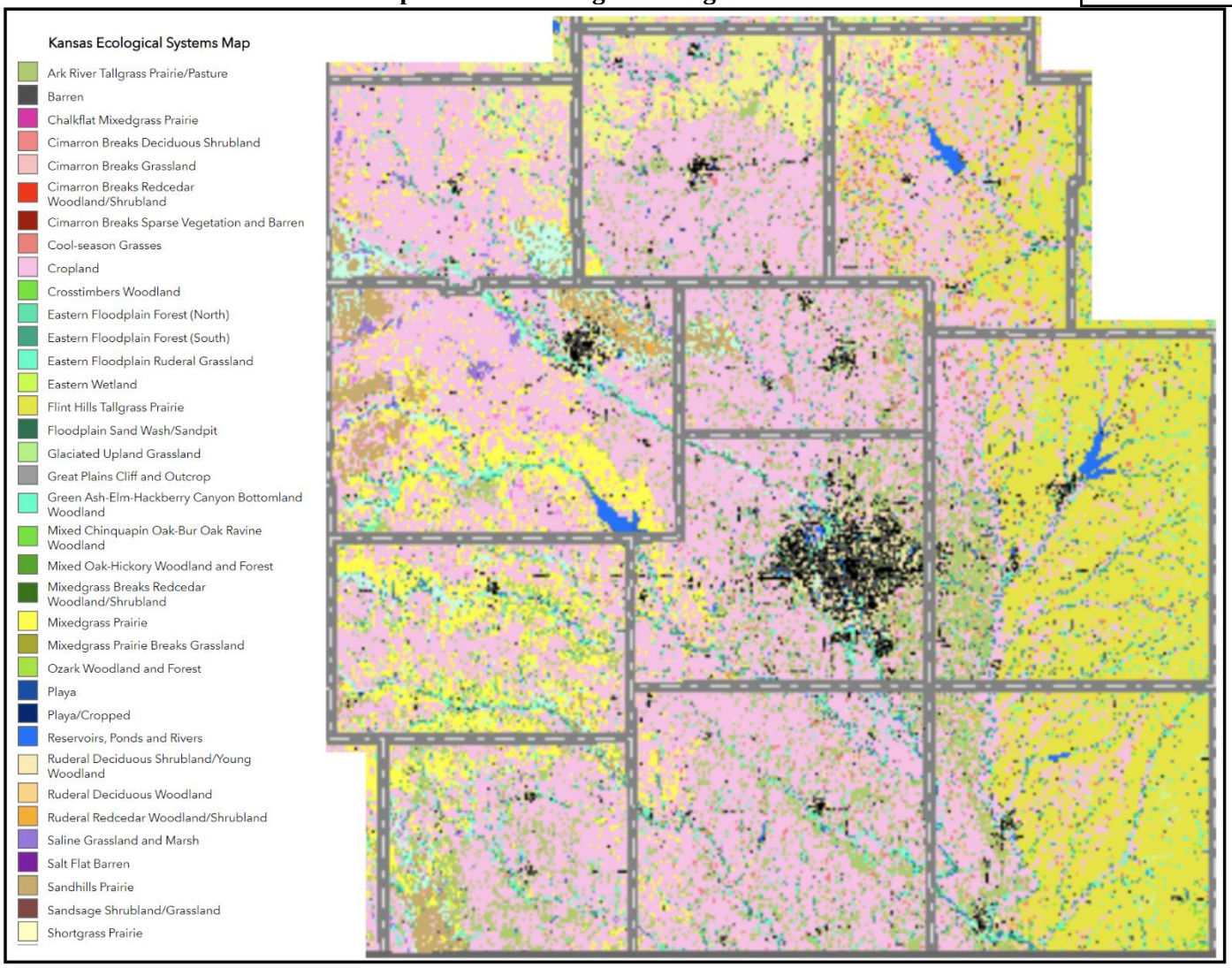
4.17.2 – Location and Extent

According to the Office of the State Fire Marshal, in 2021 Kansas fire departments responded to close to 5,000, vegetation-related fires that burned over 185,000 acres. Over 900 of these fires required counties to seek mutual-aid assistance to bring them under control.

According to fire officials, nearly ninety-five percent of all wildfires result from the activity of people and, subsequently, a significant number could be prevented through taking proper actions towards fire safety.

The following map, from the University of Kansas, indicates vegetation types within Kansas Region G, with areas of grasses, forest, and crops more likely to experience a wild or brush fire:

Map 119: Kansas Region G Vegetation Cover

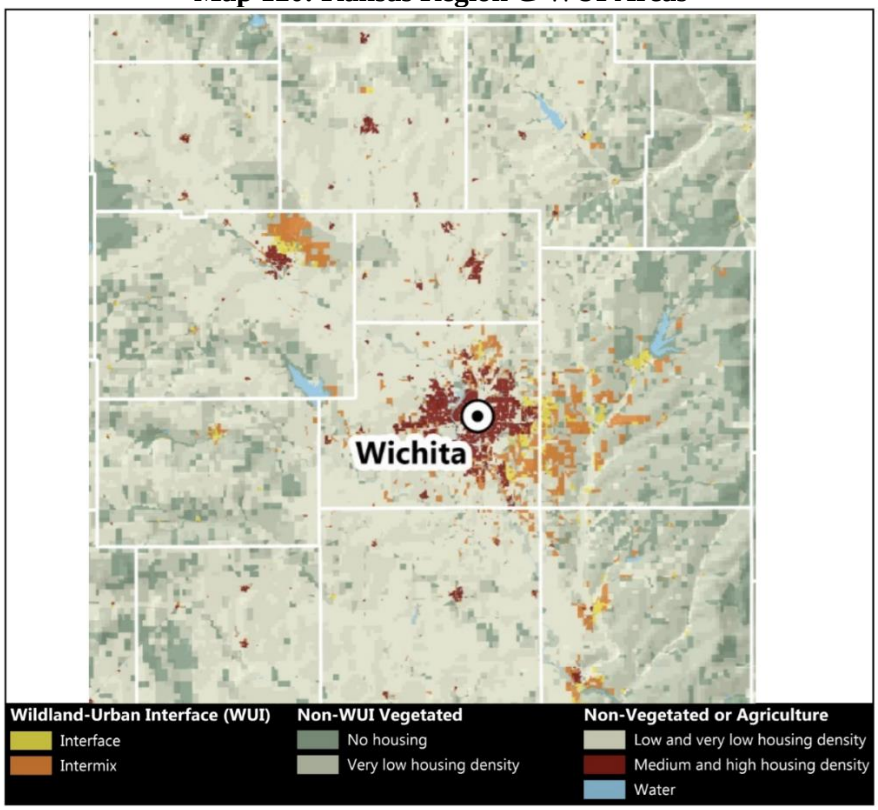


Source: University of Kansas

The wildland/urban interface (WUI) is the area where human improvements such as homes, ranches and farms come in contact with the wildlands. The WUI creates an environment in which fire can move readily between structure and vegetation fuels, often resulting in massive fires, or conflagrations, that may lead to widespread evacuations. The expansion of the WUI in recent decades has significant implications for wildfire management and its impact. There are two types of WUI, intermixed and interface. Intermix WUI are areas where housing and vegetation intermingle, and interface WUI are areas with housing in the vicinity of dense, contiguous wildland vegetation.

The following map, from the University of Wisconsin SILVIS Labs, illustrates WUI areas throughout the Kansas Region G:

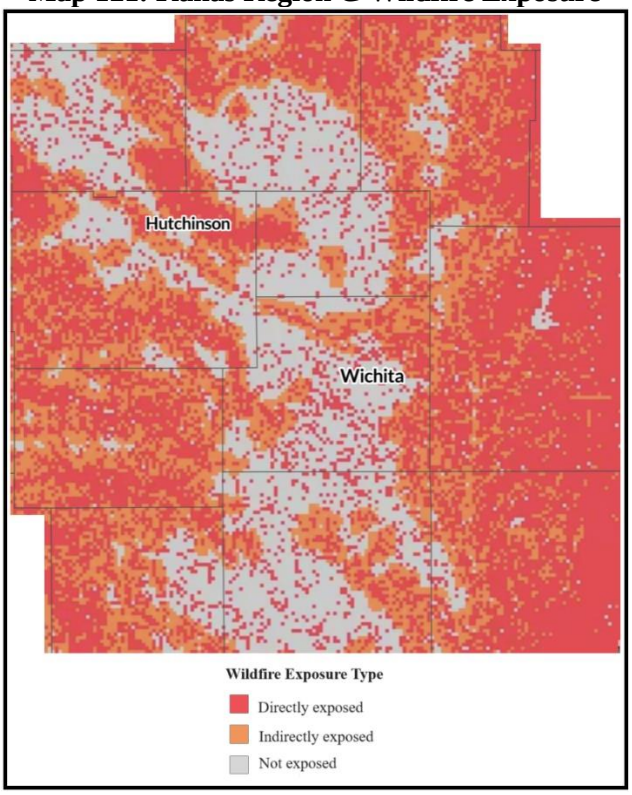
Map 120: Kansas Region G WUI Areas



Source: University of Wisconsin SILVIS Labs

Exposure is the intersection of wildfire likelihood and intensity with communities. Communities can be directly exposed to wildfire from adjacent wildland vegetation, or indirectly exposed to wildfire from embers and home-to-home ignition. Communities that are not exposed are not likely to be subjected to wildfire from either direct or indirect sources. Wildfire exposure is calculated based on wildfire likelihood and proximity to large areas of flammable wildland vegetation. Any community that is located where there is a chance wildfire could occur (in other words, where wildfire likelihood is greater than zero) is exposed to wildfire. Directly exposed homes are located in an area considered to be covered by flammable wildland vegetation. Indirectly exposed homes are located within one mile of a large area considered to be covered by flammable wildland vegetation. Non-exposed homes are located more than one mile from a large area considered to be covered by flammable wildland vegetation. The following map, from NOAA's Wildfire Risk to Communities, indicates the wildfire exposure for Kansas Region G:

Map 121: Kanas Region G Wildfire Exposure



Source: NOAA's Wildfire Risk to Communities

The duration of a wildfire depends on the weather conditions, how dry it is, the availability of fuel to spread, and the ability of responders to contain and extinguish the fire. Historically, some wildfires have lasted only hours, while other fires have continued to spread and grow for an entire season. They spread quickly and often begin unnoticed until they have grown large enough to signal by dense smoke. If fuel is available, and high wind speeds hit, a wildfire can spread over a large area in a very short amount of time. These factors make the difference between small upstart fires easily controlled by local fire services to fires destroying thousands of acres requiring multiple state and federal assets for containment and suppression.

The National Fire Danger Rating System allows fire managers to estimate today's or tomorrow's fire danger for a given area. It combines the effects of existing and expected states of selected fire danger factors into one or more qualitative or numeric indices that reflect an area's fire protection needs. It links an organization's readiness level (or pre-planned fire suppression actions) to the potential fire problems of the day. The following is a brief explanation of the different fire danger levels based on criteria established by the National Fire Danger Rating System.

Table 133: National Fire Danger Rating System

Rating	Description
Low	Fuels do not ignite easily from small embers, but a more intense heat source, such as lightning, may start fires in duff or dry rotten wood. Fires in open, dry grasslands may burn easily a few hours after a rain, but most wood fires will spread slowly, creeping or smoldering. Control of fires is generally easy.
Moderate	Fires can start from most accidental causes, but the number of fire starts is usually pretty low. If a fire does start in an open, dry grassland, it will burn and spread quickly on windy days. Most wood fires will spread slowly to moderately. Average fire intensity will be moderate except in heavy concentrations of fuel, which may burn hot. Fires are still not likely to become serious and are often easy to control.
High	Fires can start easily from most causes and small fuels (such as grasses and needles) will ignite readily. Unattended campfires and brush fires are likely to escape. Fires will spread

Table 133: National Fire Danger Rating System

Rating	Description
	easily, with some areas of high intensity burning on slopes or concentrated fuels. Fires can become serious and difficult to control unless they are put out while they are still small.
Very High	Fires will start easily from most causes. The fires will spread rapidly and have a quick increase in intensity, right after ignition. Small fires can quickly become large fires and exhibit extreme fire intensity, such as long-distance spotting and fire whirls. These fires can be difficult to control and will often become much larger and longer-lasting fires.
Extreme	Fires of all types start quickly and burn intensely. All fires are potentially serious and can spread very quickly with intense burning. Small fires become big fires much faster than at the "very high" level. Spot fires are probable, with long-distance spotting likely. These fires are very difficult to fight and may become very dangerous and often last for several days.

Source: Wildfire Fire Assessment System

The severity of wildfire depends on several quickly changing environmental factors. It is impossible to strategically estimate the severity of a wildfire as these factors, including drought conditions and wind speed, have such a great influence on the wildfire conditions. The Characteristic Fire Intensity Scale within the Southern Wildfire Risk Assessment Summary Report specially identifies areas where significant fuel hazards and associated dangerous fire behavior potential exist based on a weighted average of four percentile weather categories.

The following table details the range of wildfire intensity:

Table 134: Characteristic Fire Intensity Scale

Class	Description
Class 1- Very Low	Very small, discontinuous flames, usually less than 1 foot in length; very low rate of spread; no spotting. Fires are typically easy to suppress by firefighters with basic training and non-specialized equipment.
Class 2- Low	Small flames, usually less than two feet long; small amount of very short-range spotting possible. Fires are easy to suppress by trained firefighters with protective equipment and specialized tools.
Class 3- Moderate	Flames up to 8 feet in length; short-range spotting is possible. Trained firefighters will find these fires difficult to suppress without support from aircraft or engines, but dozer and plows are generally effective. Increasing potential for harm or damage to life and property.
Class 4 - High	Large Flames, up to 30 feet in length; short-range spotting common; medium range spotting possible. Direct attack by trained firefighters, engines, and dozers is generally ineffective, indirect attack may be effective. Significant potential for harm or damage to life and property
Class 5- Very High	Very large flames up to 150 feet in length; profuse short-range spotting, frequent long-range spotting; strong fire-induced winds. Indirect attack marginally effective at the head of the fire. Great potential for harm or damage to life and property.

Source: Southern Wildfire Risk Assessment Summary Report

Additionally, Kansas Region G utilizes the Grassland Fire Danger Index to help describe the rate of spread of a grass fire and the difficulty of extinguishing the fire. It is based on a combination of the “greenness” of the grass, and various meteorological parameters, with the higher the index, the faster the fire will spread.:

Table 135: Grassland Fire Danger Index

Value	Impact on Suppression
-4	Head fire is stopped by road and tracks.
5-9	Head fire attack is easy with water.
10-19	Head fire attack is generally successful with water.
20-39	Head fire attack will generally succeed at this index.
40-49	Head fire attack may fail except in favorable circumstances and close back burning to the head may be necessary.

Table 135: Grassland Fire Danger Index

Value	Impact on Suppression
50+	Direct attack will generally fail. Back burn from a secure good line with adequate personnel and equipment. Flanks must be held at all costs.

Source: National Weather Service

4.17.3 Previous Occurrences

FEMA can approve declarations for fire management assistance when the Administrator determines that a fire or fire complex on public or private forest land or grassland threatens such destruction as would constitute a major disaster. The following table details all recorded fire management declarations for Kansas Region G:

Table 136: Kansas Region G Fire Management Declarations

Designation	Declaration Date	Incident Name	Counties	Public Assistance	Emergency Work
FM-5425-KS	5/5/2022	Kansas Cottonwood Fire Complex	Harvey and Reno	$464,403	$59,033
FM-5170-KS	3/5/2017	Kansas Highland Hills Fire	McPherson, Reno, and Rice	$1,727,559	$559,070
FM-2632-KS	3/30/2006	Kansas Obee Fire	Reno	-	-

Source: FEMA

Wildfires are a frequent occurrence in both Kansas and Kansas Region G with over 35,000 incidents reported from 2018 to 2023. The majority of these are generally small and quickly contained with recent fire occurrences burning a smaller acreage due to quicker response times, better spotting practices, and stronger management policies. The following table details recent Kansas Region G wildfires that burned over 500 acres, caused damages greater than $100,000, and/or caused injuries or fatalities:

Table 137: Kanas Region G Wildfires 2018- 2023

Date	County	Jurisdiction	Total Dollar Loss	Injuries and Fatalities	Acres Burned
03/28/2023	Cowley	Rock	$100,000	0	40
03/31/2023	Butler	El Dorado	Not reported	2	3,060
03/31/2023	Cowley	Arkansas City	$250,000	0	Not reported
03/22/2023	Cowley	Dexter	$130,000	0	Not reported
04/19/2018	Cowley	Dunlap	$0	0	900
06/13/2022	Cowley	Pleasant Valley	$0	0	700
03/15/2018	Harper	Anthony	$2,005,000	0	Not reported
03/06/2018	Harper	Harper	$0	0	2,100
03/06/2018	Harper	Harper	$0	0	1,200
03/05/2022	Harvey	Burrton	$550,000	0	Not reported
07/27/2019	Harvey	Newton	$175,000	0	Not reported
03/22/2018	Harvey	Putnam	$0	0	1,508
12/22/2018	Kingman	Kingman	$0	7	50
03/10/2021	Marion	Burns	$2,500,000	0	Not reported
04/07/2020	McPherson	Canton	$0	0	640
04/01/2021	McPherson	Carlton	$0	0	1,000
03/29/2021	Reno	Hutchinson	$0	0	600
03/29/2021	Reno	Hutchinson	$0	0	600
03/29/2021	Reno	Hutchinson	$0	0	600
03/29/2021	Reno	Hutchinson	$0	0	600
03/29/2021	Reno	Hutchinson	$0	0	600
03/05/2022	Reno	Hutchinson	$3,000,000	0	Not reported
03/05/2022	Reno	Hutchinson	$500,000	0	Not reported
04/08/2020	Reno	South Hutchinson	$0	0	1,000

Table 137: Kanas Region G Wildfires 2018- 2023

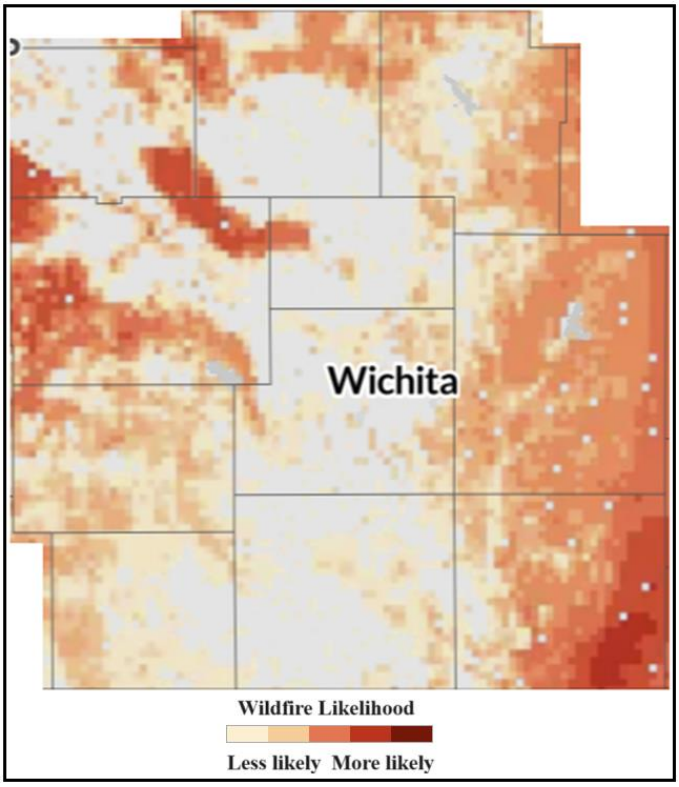
Date	County	Jurisdiction	Total Dollar Loss	Injuries and Fatalities	Acres Burned
04/01/2021	Rice	Alden	$500,000	0	80
04/01/2021	Rice	Alden	$500,000	0	80
04/01/2021	Rice	Alden	$500,000	0	80
04/01/2021	Rice	Alden	$500,000	0	80
03/06/2018	Sedgwick	Garden Plain	$203,100	1	Not reported
03/20/2022	Sedgwick	Goddard	$15,500	1	Not reported
10/17/2019	Sumner	Conway Springs	$135,000	0	100

Source: KDEM

4.17.4 Probability of Future Events

Predicting the probability of wildfire occurrences is tremendously challenging due to the large number of factors involved and the random nature of formation. NOAA's Wildfire Risk to Communities mapping, which uses the best available science to identify risk, was used to help determine the probability of future wildfires within Kansas Region G. The following map indicates the likelihood of a wildfire within the Kanas Region G:

Map 122: Kansas Region G Wildfire Likelihood



Source: NOAA's Wildfire Risk to Communities

4.17.5 Projected Changes in Location, Intensity, Frequency, and Duration

Climate change can result in a significant increase in the likelihood and severity of wildfires. The occurrence of more frequent and longer lasting droughts due to climate change can increase the availability of fuels for wildfires through the drying of vegetation. Additionally, both the increased occurrence and continued decline of native species due to lack of precipitation can cause the proliferation of invasive species which can provide quick-burning fuels that contribute to the start and spread of fire.

Climate change may impact the frequency and magnitude of wildfires in the following ways:

- Increased Frequency: Warmer temperatures and prolonged periods of drought associated with c create conditions that favor more frequent wildfires. Extended fire seasons are becoming the new norm in many regions.
- Greater Intensity: Higher temperatures and drier conditions can lead to more intense wildfires. These fires burn hotter and spread more rapidly, making them more challenging to control and extinguish.
- Longer Fire Seasons: Climate change is extending the length of fire seasons, leading to earlier starts and later endings. This puts additional stress on firefighting resources and increases the risk of wildfires overlapping with other disasters.
- Altered Precipitation Patterns: Changes in precipitation patterns, including more intense rainfall events followed by extended dry periods, can promote the growth of vegetation, which can then become fuel for wildfires during subsequent dry periods.
- Drought Conditions: Prolonged droughts associated with climate change reduce soil moisture levels and the availability of water sources. Dry conditions increase the susceptibility of vegetation to ignition.
- Vegetation Changes: Climate change can alter the distribution and composition of vegetation, such as the expansion of drought-tolerant species. This can change fuel availability and make ecosystems more fire-prone.
- Insect Infestations: Warmer temperatures can lead to increased insect infestations in forests. Infested and dead trees provide additional fuel for wildfires.
- Wildfire Behavior: Climate change can lead to changes in wildfire behavior, including the development of fire whirls, more extreme fire behavior events, and increased spotting (the spread of embers ahead of the main fire).

Compounding the potential future impact of this hazard, local discussions indicate that a continued staffing shortage and aging equipment in the majority of regional fire departments may hamper future response activities.

4.17.6 Vulnerability and Impact

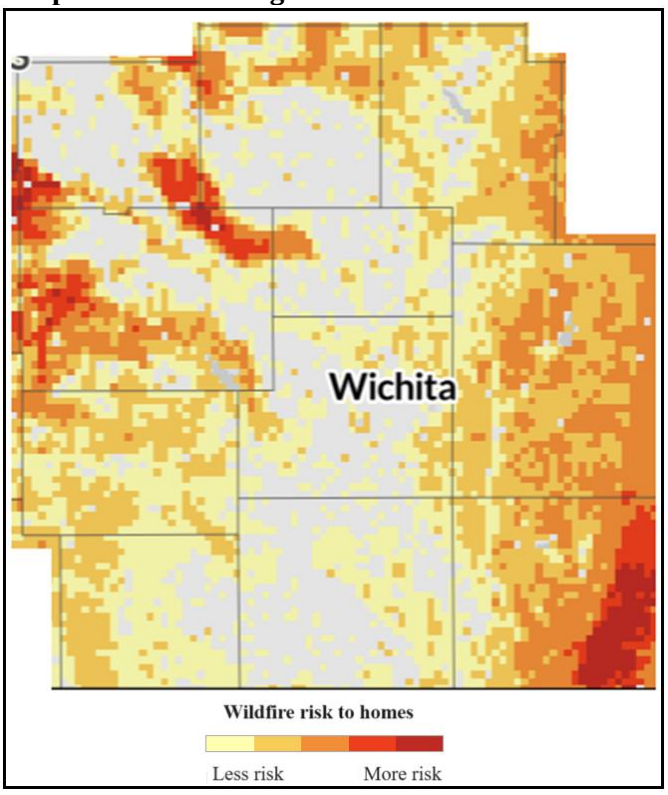
Wildfires can have significant and often devastating impacts on people and communities. These impacts can vary depending on the wildfire's intensity, size, path, and the preparedness of the affected area, and may include.

- Injuries and Fatalities: Wildfires can lead to injuries and fatalities among residents, firefighters, and emergency responders due to burns, smoke inhalation, and accidents during firefighting efforts.
- Evacuations and Displacement: Wildfire damage can force people to leave their homes, leading to temporary or even long-term displacement. Some may require emergency shelter and assistance from relief organizations.
- Property Loss: Wildfires can cause extensive property damage to homes, businesses, and vehicles.
- Health Risks: Smoke from wildfires can contain harmful pollutants, including fine particulate matter and toxic gases, which can lead to respiratory problems and exacerbate pre-existing health conditions. Vulnerable populations, such as children and the elderly, are at higher risk.
- Mental Health Impact: The trauma and stress associated with experiencing a wildfire, evacuations, property loss, and the challenges of recovery can have a significant impact on mental health.
- Emergency Response Challenges: Wildfires can strain emergency response resources, including firefighting personnel, equipment, and medical facilities. First responders may be faced with a large number of emergency calls.
- Economic Costs: Wildfires result in economic costs, including property damage and insurance claims.

Additionally, wildfires can devastate communities and homes. They can cause various types of property damage, including burning structures, charring of exterior surfaces, and damage to roofs, walls, and windows. The heat generated by wildfires can weaken or melt building materials. In extreme cases, wildfires can completely destroy homes, reducing them to ashes and rubble. Homes that may not have been directly impacted by the fire may also be affected. Wildfires can damage utility infrastructure, including power lines and gas pipelines, leading to utility interruptions that affect homes and residents. They can damage or contaminate water supply infrastructure, affecting access to clean water for drinking, firefighting, and sanitation.

The following map, from NOAA’s Wildfire Risk to Communities, indicates the wildfire risk to homes in Kansas Region G:

Map 123: Kansas Region G Wildfire Risk to Homes



Source: NOAA's Wildfire Risk to Communities

Wildfires can have wide-ranging impacts on critical infrastructure. They can damage electrical transmission and distribution lines, transformers, and power substations. This can lead to widespread power outages, affecting homes, businesses, hospitals, and emergency response capabilities. Damage cell towers, telephone lines, and other communication infrastructure can hinder emergency response efforts, as well as the ability of individuals to call for help or communicate with loved ones. Wildfires can block roads with debris, making them impassable and hindering emergency response and evacuation efforts.

Hospitals and healthcare facilities may be damaged or rendered inoperable during wildfires, affecting the ability to provide medical care during a disaster. Fire stations, police stations, and emergency operation centers may be damaged or destroyed, impacting the ability of first responders to coordinate disaster response efforts. Damage to emergency shelters and housing facilities can disrupt services which are critical for providing temporary shelter to displaced individuals and families.

Wildfires can have varied impacts on the environment. These impacts are often destructive and can affect ecosystems, wildlife, natural resources, and even the local climate. They can destroy natural habitats, including forests, grasslands, wetlands, and shrublands. This can have devastating effects on wildlife species that depend on these ecosystems for shelter, food, and breeding. Wildfires can harm or displace wildlife, resulting in injury or death. They can force wildlife to flee their habitats, leading to displacement and potential conflicts with human populations. Animals may struggle to find suitable new habitats. Post-fire landscapes are often vulnerable to colonization by invasive plant species, which can outcompete native vegetation and disrupt ecosystem functions.

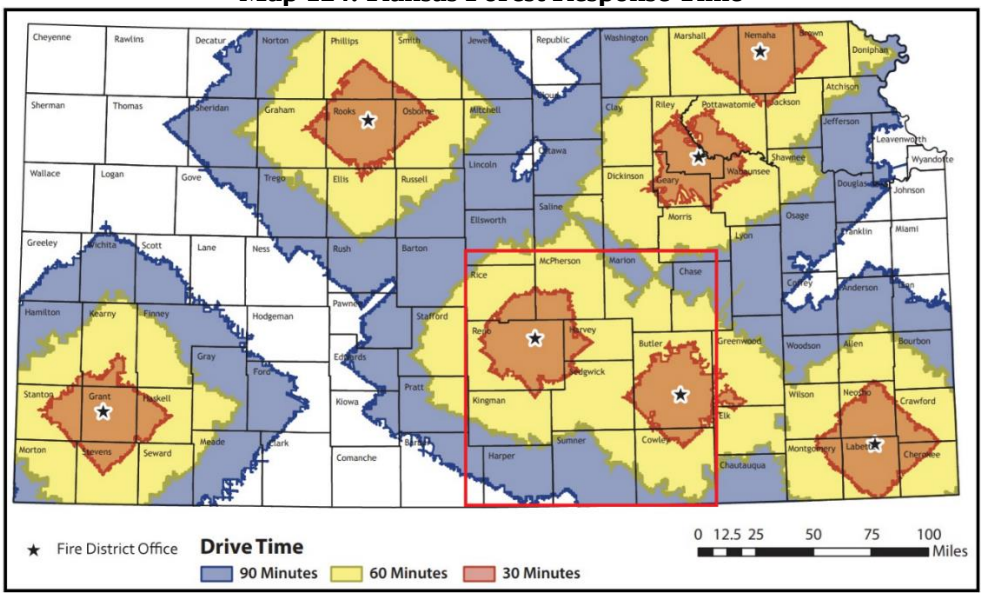
Wildfires can have significant impacts on government operations, which may include:

- Emergency Response and Public Safety: Wildfires can lead to a surge in emergency calls for services related to accidents, injuries, and damaged structures. Agencies involved in emergency response must mobilize additional resources to handle these demands.

- Emergency Operations Centers: Wildfire often require the activation of Emergency Operatio coordinate emergency response efforts. These centers serve as hubs for communication, resource allocation, and decision-making during disasters.
- Infrastructure Damage: Wildfires can cause extensive damage to critical infrastructure, including roads, bridges, schools, government buildings, and utility facilities. This damage can disrupt government operations and hinder transportation and communication.
- Budgetary Impact: The costs associated with emergency response efforts, disaster recovery, and infrastructure repair can strain budgets.
- Resource Allocation: Local governments must allocate resources, including personnel, equipment, and stockpiled supplies, to support emergency response and recovery efforts.
- Communication Challenges: Wildfires can disrupt communication networks, hindering the ability of government agencies to communicate internally and with the public. This can impact emergency notifications and coordination efforts.
- Economic Impact: The destruction of infrastructure and businesses can have significant economic consequences for local communities, including job losses and reduced economic activity.
- Public Services: Wildfires can disrupt the delivery of public services, including transportation, utilities, and social services, affecting the well-being of residents.

The Kansas Forest Service operates seven full-time district offices with fire staff to serve firefighters and communities in wildland fire efforts. The following map illustrates the anticipated response time for these staff to reach Kansas Region G communities when requested by local resources:

Map 124: Kansas Forest Response Time



Source: Kansas Forest Service

Potentially Vulnerable Community Lifelines

Wildfires can impact various community lifelines, critical systems and services that communities rely on for their functioning. Vulnerabilities arise due to the stress that wildfire conditions place on infrastructure, resources, and operational processes. As an overview, the May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report indicates the following loss values for community lifelines:

Table 138: Economic Impacts of Loss of Service Per Capita Per Day (in 2022 dollars)

Category	Loss
Loss of Electrical Service	$199
Loss of Wastewater Services	$66
Loss of Water Services	$138

Table 138: Economic Impacts of Loss of Service Per Capita Per Day (in 2022 dollars)

Category	Loss
Loss of Communications/Information Technology Services	$141

Source: May 2023 FEMA Benefit-Cost Analysis Sustainment and Enhancements Standard Economic Value Methodology Report

Wildfires can have significant impacts on electrical utilities, affecting both the infrastructure and the services they provide. Some of the key impacts include:

- Damage to Power Lines and Equipment: Wildfires can cause direct damage to electrical infrastructure such as power lines, transformers, substations, and other equipment. The intense heat from the fire can melt wires, damage insulators, and compromise the structural integrity of utility poles and towers.
- Power Outages: The destruction of power lines and equipment can lead to widespread power outages in affected areas. This not only disrupts daily life for residents but can also impact critical services such as hospitals, emergency response systems, and water treatment facilities.
- Infrastructure Accessibility: Wildfires can make it difficult for utility crews to access affected areas due to road closures, damaged infrastructure, and hazardous conditions. This can delay repair and restoration efforts, prolonging the duration of power outages.
- Grid Instability: The loss of transmission lines and substations can destabilize the electrical grid, leading to voltage fluctuations, frequency variations, and potential cascading outages. Restoring grid stability after a wildfire requires careful coordination and management by utility operators.
- Safety Concerns: Wildfires pose safety risks to utility workers involved in repair and restoration efforts. In addition to the immediate dangers of fire and smoke, there may be hazards such as downed power lines, weakened structures, and unstable terrain.

In order to reduce plan duplication, mapping concerning electrical generation plants, high-capacity transmission lines, and electrical utility providers as well as utility repair and replacement cost estimation provides may be found in Section 4.9.6, maps 33 and 34 and Chart 15

Communications systems within Kansas Region G may have an increased vulnerability to wildfire events. Of particular concern are 911 and dispatch systems. All jurisdictions are served by a 911 and dispatch system, providing direct dispatching for:

- Law Enforcement
- Emergency Medical Services
- Fire

Wildfires can disrupt this vital communications system, affecting reliability and functionality. Some of the key vulnerabilities include:

- Structural Damage to Communication Towers: Wildfires can cause direct structural damage to communication towers, including cellular, television, radio, and microwave towers. Toppled or damaged towers can disrupt signal transmission and reception.
- Power Outages: Wildfires often cause power outages by damaging electrical infrastructure. Communication facilities, including cell towers and data centers, rely on a stable power supply. Power failures can lead to service interruptions.
- Fiber Optic Cable Damage: Wildfires can damage underground and aerial fiber optic cables. Severed cables can disrupt data transmission and internet connectivity.
- Equipment Damage: Communication equipment located outdoors, such as antennas, dishes, and amplifiers, can be damaged by wildfires, affecting the performance of communication systems.
- Loss of Communication Nodes: Wildfires can damage communication nodes, exchanges, and network switching centers. Loss of these critical components can lead to widespread service disruptions.

- Cellular Network Congestion: During and after a wildfire there is often an increased demand communication as individuals seek information and contact loved ones. This surge in demand can lead to network congestion and reduced service quality.

The cost to repair communications networks can vary widely depending on the extent of the damage, the size of the network, and the specific technologies involved. Repair costs may include expenses for labor, equipment replacement or repair, materials, and any additional resources required to restore the network to full functionality. The following data, from the U.S. Department of Homeland Security Cybersecurity and Infrastructure Security Agency, indicates cost ranges for communications system components:

Table 139: Summary of Communication System Component Costs

Components	Examples	Cost	Expected Lifespan
Infrastructure	Towers, shelters, commercial and backup power equipment,	$$$–$$$$$	20–25 years
Fixed Station Equipment	Antennas, repeaters, towers on wheels, consoles, mobile stations, servers, computers, physical and electronic security elements (e.g., fencing, cameras, monitors, environmental conditions)	$$-$$$	3-15 years
Devices	Handheld portable radios, cellular phones, satellite phones, mobile data devices	$-$$	2-10 years
Accessories	Holsters, chargers, speakers, lapel microphone extensions, Bluetooth, vehicle kits, aircards, intercoms	$	2-10 years
Features	Encryption to protect against security risks, ruggedization to ensure reliant services, Over-the-Air-Programming, automatic roaming	$-$$$	-
Software and Data Storage	Global information system, emergency notifications, monitoring, call answering, database access, Automatic Vehicle Locator	$-$$	-

Source: U.S. Department of Homeland Security Cybersecurity and Infrastructure Security Agency

Wildfires can significantly impact emergency response infrastructure, creating challenges for first responders and organizations involved in managing and mitigating the effects. Wildfires can impact emergency response through:

- Transportation Disruptions: Debris on roads can hinder the ability of emergency vehicles to navigate and reach affected areas promptly. Hazardous road conditions may result in delays in response times.
- Road Closures: Wildfires can lead to the closure of roads due to debris accumulation and hazardous conditions. This can limit access for emergency vehicles and impede the evacuation of residents.
- Communication Disruptions: Wildfires can disrupt communication networks, affecting the ability of emergency responders to coordinate and communicate effectively. Downed power lines and damage to communication infrastructure contribute to these disruptions.
- Power Outages: Wildfires downing power lines can lead to power outages. Emergency response facilities, such as command centers and fire stations, may lose power, affecting their operational capabilities.
- Resource Allocation Challenges: Wildfires often require the allocation of additional resources, including personnel, equipment, and supplies, to address immediate needs. This can strain emergency response organizations and impact their ability to respond to other concurrent incidents.
- Logistical Challenges: Wildfires may create logistical challenges for the transportation of supplies, equipment, and personnel to affected areas, hindering the overall effectiveness of emergency response efforts.
- Increased Demand for Services: Wildfires can result in an increased demand for emergency services, including medical assistance, search and rescue operations, and responses to accidents. Emergency response organizations may need to manage a higher volume of incidents simultaneously.

In order to reduce plan duplication, mapping concerning fire and law enforcement locations may be found in 4.14.6, Maps 88 and 89.

Wildfires can have various impacts on water utilities and infrastructure, affecting both the supply and q as well as the infrastructure used to treat and distribute it. Here are some ways wildfires can impact water utilities and infrastructure:

- Water Source Contamination: Wildfires can contaminate surface water and groundwater sources with ash, debris, sediment, and pollutants. When rain falls on burned areas, it can wash ash and other contaminants into rivers, lakes, and reservoirs, compromising water quality. This can pose challenges for water treatment plants in removing contaminants and ensuring the safety of drinking water supplies.
- Reduced Water Availability: Wildfires can decrease water availability in affected watersheds by altering hydrological processes such as infiltration, runoff, and groundwater recharge. The loss of vegetation and soil cover increases the risk of erosion and reduces water retention capacity, leading to decreased streamflow and lower reservoir levels. Water utilities may need to implement conservation measures and adjust water allocation plans to manage shortages during and after wildfires.
- Infrastructure Damage: Wildfires can damage water infrastructure such as pipelines, pump stations, treatment plants, and storage facilities. Direct exposure to flames, intense heat, and falling debris can cause structural damage, melting of pipes, and electrical equipment failure. In addition, the loss of vegetation and soil stability can increase the risk of landslides and mudflows, which can damage or block water conveyance systems.
- Power Outages: As mentioned earlier, wildfires can disrupt electrical utilities, leading to power outages that affect water treatment and distribution operations. Many water treatment plants rely on electricity to power pumps, motors, and treatment processes. Without power, water utilities may be unable to maintain adequate water pressure, treat water to regulatory standards, or supply water to customers.

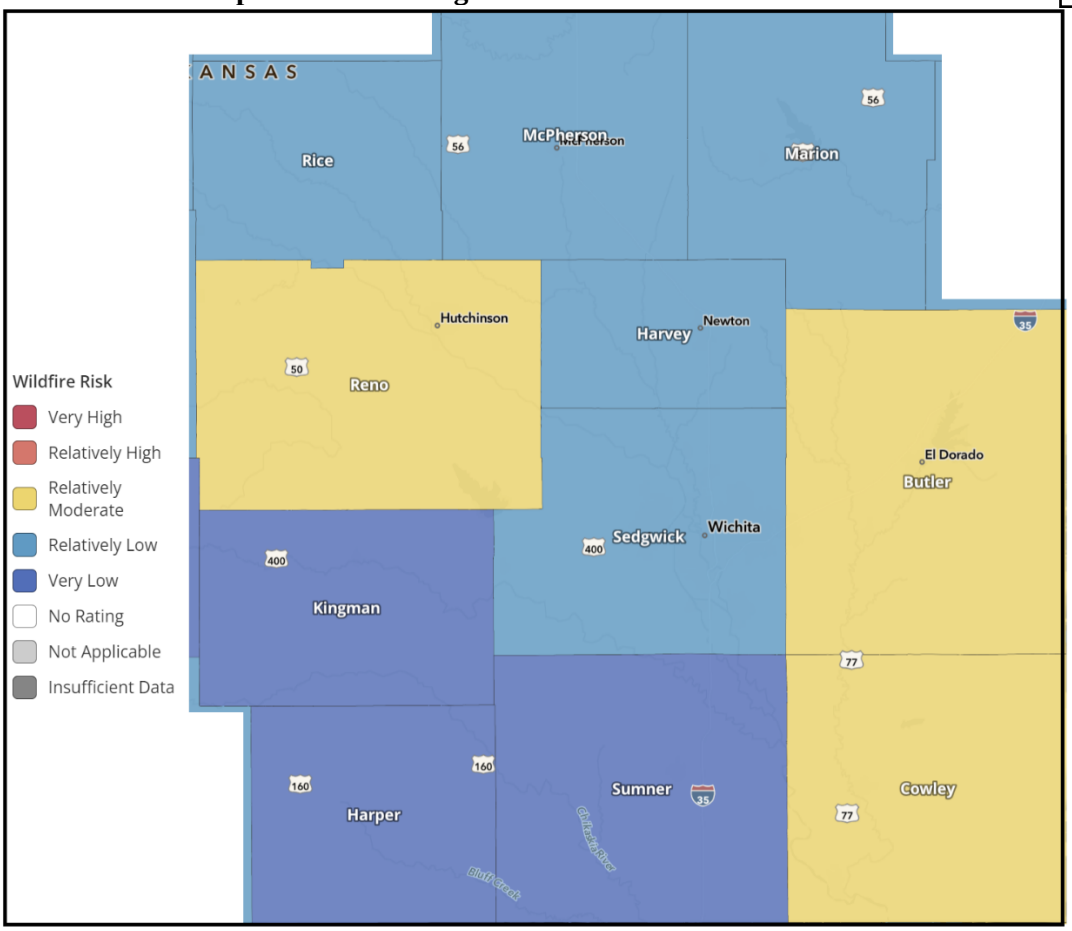
In order to reduce plan duplication, mapping concerning water infrastructure may be found in Section 4.10.6, map 36.

Hospitals and other smaller medical facilities may see an increase in wildfire related injuries during an event, but it is considered unlikely that this increase will impact or overload capacity. However, tornadoes can increase the demand for emergency shelters, particularly in cases of widespread power outages. Setting up and managing these shelters can strain resources. Hospital capacity mapping may be found in Section 4.9.6, Map 35.

FEMA NRI

Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating counties from tornadoes:

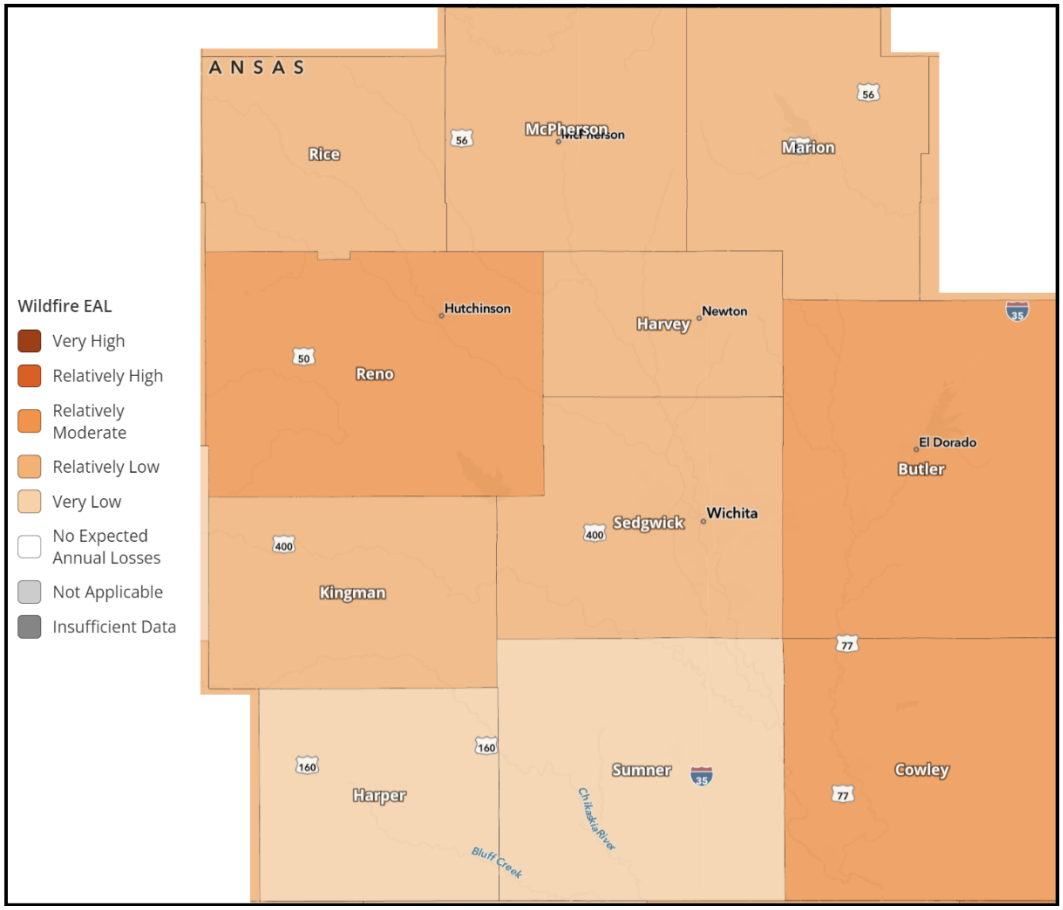
Map 125: Kansas Region G FEMA NRI Wildfire Risk



Source: FEMA NRI

As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for wildfires for participating counties within Kansas Region G:

Map 126: Kansas Region G FEMA NRI Wildfires EAL



Source: FEMA NRI

The following table indicates the FEMA NRI and EAL analysis for each participating Kansas Region G county for wildfire:

Table 140: Kansas Region G FEMA NRI and EAL for Wildfire by County

County	Risk Index	EAL
Butler	Relatively Moderate	Relatively Moderate
Cowley	Relatively Moderate	Relatively Moderate
Harper	Very Low	Very Low
Harvey	Relatively Low	Relatively Low
Kingman	Very Low	Relatively Low
Marion	Relatively Low	Relatively Low
McPherson	Relatively Low	Relatively Low
Reno	Relatively Moderate	Relatively Moderate
Rice	Relatively Low	Relatively Low
Sedgwick	Relatively Low	Relatively Low
Sumner	Very Low	Very Low

Source: FEMA NRI

It is worth noting that, differing from the NRI, Butler County is rated by the USDA/Forest Service (wildfirerisk.org) as being at high risk for wildfire, ranking higher than 72% of counties in the US, and having a higher likelihood of wildfire than 83% of the counties in Kansas

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 141: Wildfire Consequence Analysis

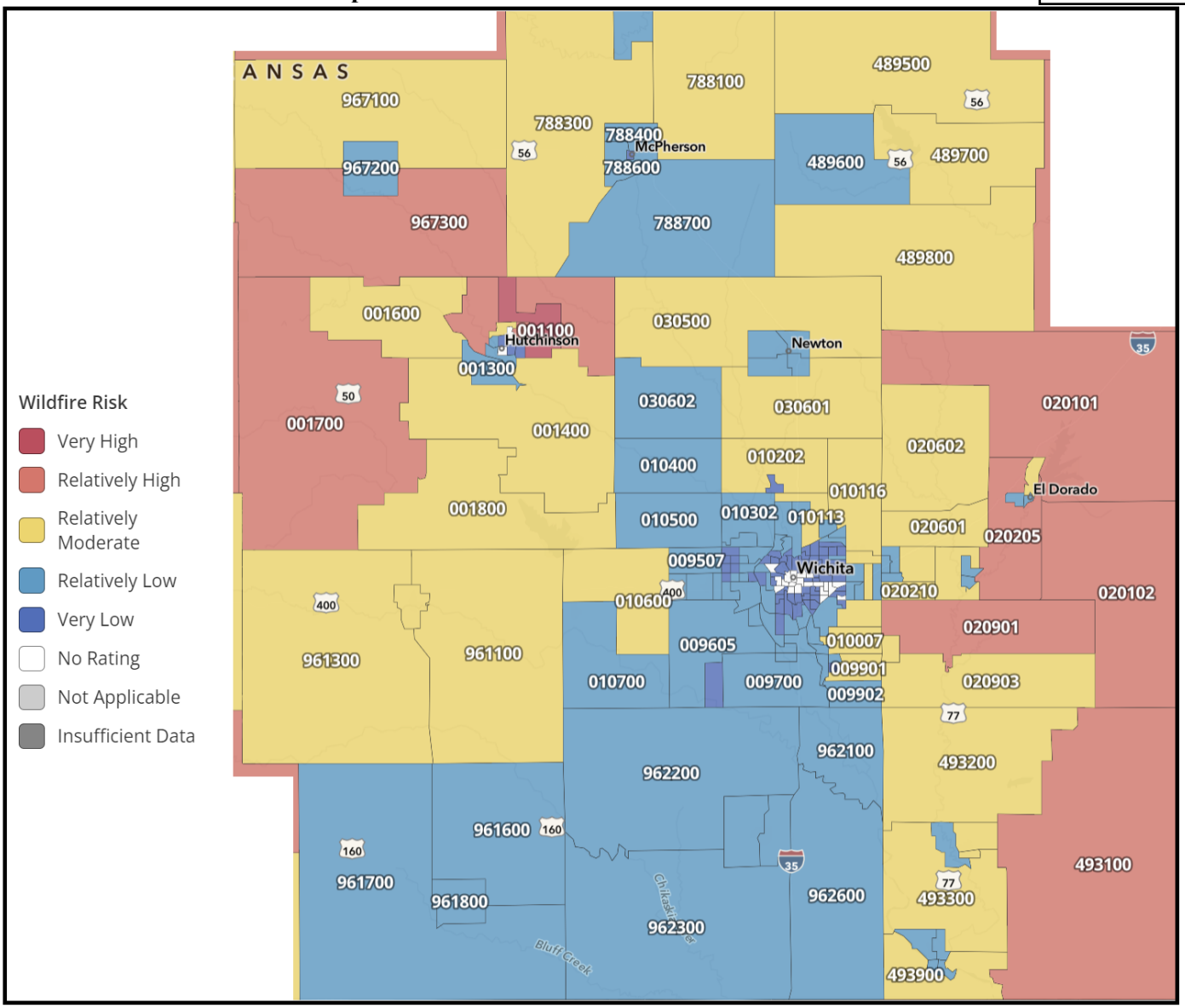
Subject	Potential Impacts
Impact on the Public	People located in the immediate area of the fire face the risk injury or death if not evacuated in time. Once evacuated, they may face lengthy period of relocation. Fires can release toxic components which can cause adverse health effects including respiratory and cardiovascular system impacts. Psychological and psychiatric concerns may arise due to exposure to the traumatic event. Young children and the elderly are especially vulnerable to health issues stemming from fire and smoke exposure.
Impact on Responders	Fire, police, and emergency responders may be called to evacuate people from the fire area, close roads, create fire breaks, attend to the injured, and direct traffic. Firefighters are at a higher risk of smoke inhalation, burns, and health problems due to working in close proximity to fires and the subsequent smoke.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. Wildfires may impact an agency's ability to maintain continuity of operations due to impacts on critical infrastructure.
Delivery of Services	Fires can cause disruption of services, including the ability to deliver goods and services. Impacts on operations could lead to a reduction or cessation of services. Goods and facilities may be damaged or destroyed by fire, smoke, or extremely high temperatures.
Property, Facilities, and Infrastructure	Fire can damage or completely destroy property and critical facilities, as well as lead to interruption of the power supply system. A fire of significant strength can cause major damage to buildings or farmland. Large fires may also interrupt transportation systems such as train and bus lines, creating a challenge for public transit and evacuation.
Impact on Environment	Fires can cause significant impact to the environment by spreading pollution, damaging agricultural crops, and disturbing the wildlife and natural areas. Water and soil pollution caused by fire can cause longer term threats to ecosystem health. Fire damage may also affect soil formation, nutrient cycling, and carbon sequestration and storage.
Economic Conditions	Fires can cause a fiscal impact on the local government, even if costs can be recouped by federal grants. Agriculture is a major component of the local, county and state economy, and major fires could cause significant impact. Costs may be associated with loss of income, damage to property, firefighting can be significant.
Public Confidence in Governance	Governmental response, on all levels , state and local, would require direct action that must be immediate and effective to maintain public confidence.

4.17.7 Jurisdictional Risk and Vulnerability

To help understand the risk and vulnerability to wildfiress of participating jurisdictions mapping from the FEMA NRI was run on a census tract level. As the NRI does not generate mapping for individual jurisdictions, census tract analysis is the closest analogue available to understand individual jurisdiction conditions.

Using the FEMA NRI, and consisting of three input components (expected annual loss, social vulnerability, and community resilience), the following map was created indicating the potential risk to participating jurisdictions (as indicated by census tract) from wildfires:

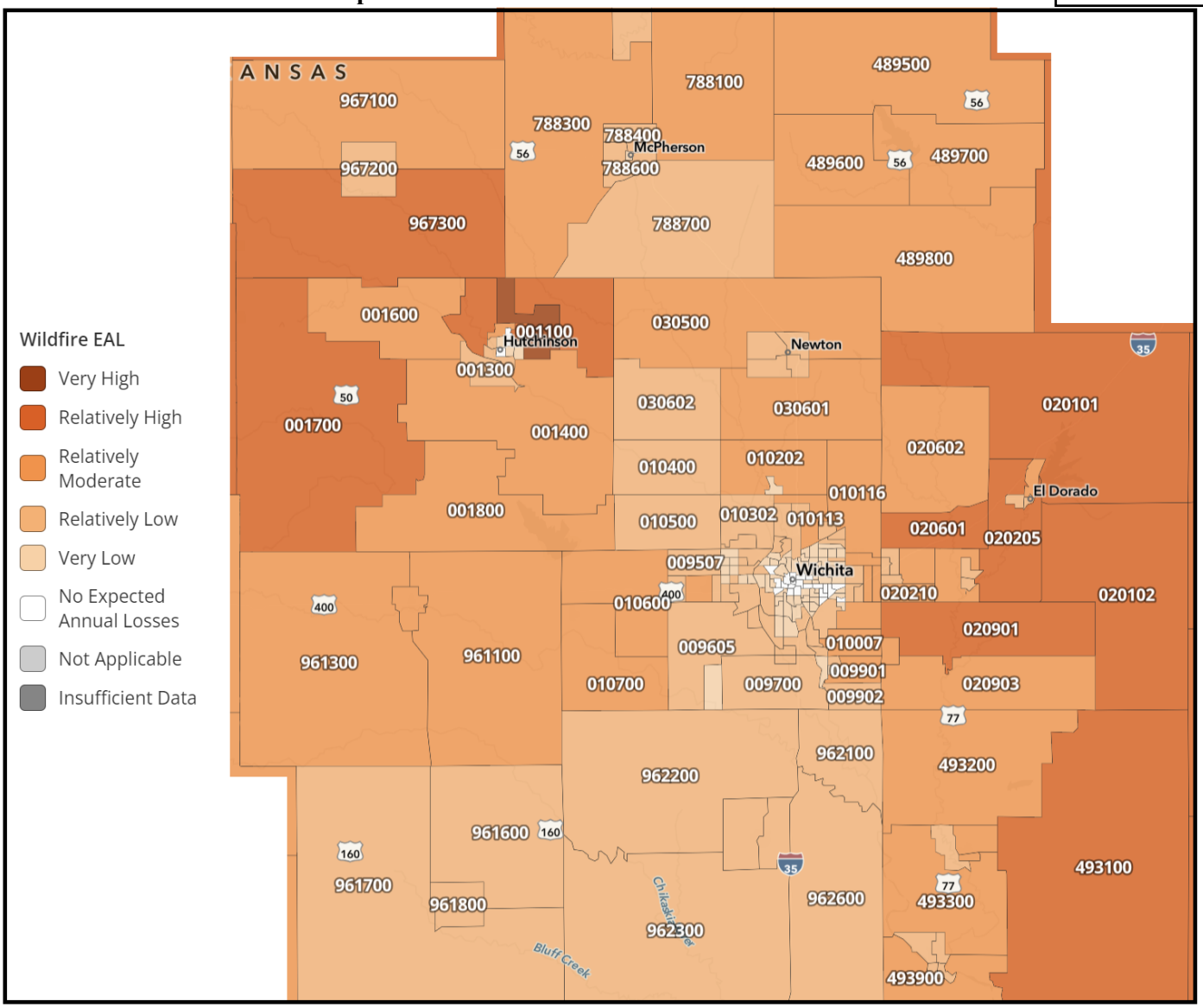
Map 127: FEMA NRI Jurisdictional Wildfires Risk



Source: FEMA NRI

As part of the NRI, EAL represents the average economic loss in dollars resulting from natural hazards each year and is proportional to a community's risk. The following map indicates the EAL for wildfires for participating jurisdictions (as indicated by census tract) within Kansas Region G:

Map 128: FEMA NRI Jurisdictional Wildfires EAL



Source: FEMA NRI

FEMA NRI data tables, by census tract, are included in Appendix C. These data tables contain the risk index and EAL along with total building valuation and agricultural valuation allowing for an understanding of potential structural and agricultural vulnerability on a jurisdictional basis.

4.18 Cybersecurity Event

4.18.1 Hazard Description

Cybersecurity attack refers to a deliberate and malicious attempt to compromise the security of computer systems, networks, devices, or data. The primary objectives of cyberattacks can vary widely and may include gaining unauthorized access, stealing sensitive information, disrupting operations, or extorting payment. Cybersecurity threat actors can be classified as:

- Hacktivists: Loosely organized groups known for conducting distributed denial-of-service attacks and defacing websites to promote political or social causes.
- Ransomware Operators: Criminal groups use ransomware to encrypt victims' data and demand ransoms for decryption keys.
- Malware Developers: Individuals or groups create and distribute malicious software (malware) for profit.
- Organized Crime: Criminal organizations may engage in various forms of cybercrime, such as identity theft, credit card fraud, and hacking for profit.
- Advanced Persistent Threat Groups: Nation-state-sponsored groups are among the most sophisticated threat actors. They conduct long-term, highly targeted cyber espionage campaigns.

4.18.2 – Location and Extent

The entire state is vulnerable to cybersecurity incidents. As most day-to-day activities rely on the internet in one aspect or another, any person or infrastructure is susceptible to cybersecurity threats. Cyber-attacks can take various forms, each with its own tactics and techniques, and include:

- Malware Attacks: Malicious software, such as viruses, worms, Trojans, ransomware, and spyware, is used to infect and compromise a computer or network. Malware can cause damage, steal information, or provide unauthorized access.
- Phishing Attacks: Phishing attacks involve tricking individuals into revealing sensitive information, such as passwords or financial details, by posing as a legitimate entity. Phishing emails, websites, and messages are common tools for attackers.
- Denial-of-Service Attack: An attack that overwhelms a target system or network with traffic, rendering it inaccessible.
- Distributed Denial-of-Service Attack: An attack that involves multiple compromised devices (a botnet) flooding a target with traffic, making it impossible to function effectively.
- Man-in-the-Middle Attacks: In these attacks, an attacker intercepts and possibly alters communications between two parties without their knowledge. This can lead to data interception, eavesdropping, or impersonation.
- SQL Injection Attacks: Attackers inject malicious SQL code into input fields of a web application to manipulate a database, potentially gaining unauthorized access or extracting data.
- Zero-Day Vulnerabilities: Attackers leverage security vulnerabilities in software or hardware that are not yet known to the vendor or public. These vulnerabilities are known as "zero-days."
- Brute Force: Attackers attempt to gain access to an account or system by trying all possible password combinations until the correct one is found.
- Dictionary Attacks: Attackers use precompiled lists of common passwords to guess login credentials.
- Social Engineering Attacks: This involves manipulating individuals into divulging confidential information or performing actions that compromise security. It often relies on psychological manipulation.
- Ransomware Attacks: Attackers encrypt a victim's data and demand a ransom in exchange for the decryption key. Payment does not guarantee data recovery, and it encourages further attacks.
- Insider Attacks: Malicious or negligent actions by individuals within an organization can pose significant cybersecurity risks, as they may have access to sensitive information and systems.

- Supply Chain Attacks: Attackers target suppliers, vendors, or partners to compromise the securi
  or services, which can affect downstream organizations and consumers.
- Internet of Things Attacks: Devices connected to the internet, such as smart appliances and sensors, can be targeted to gain unauthorized access or control.

4.18.3 Previous Occurrences

Kansas Region G has experienced numerous cyber-attacks over the past few years. In general, jurisdictions impacted by cyber-attacks have elected not to publicize these events as part of this HMP.

4.18.4 Probability of Future Events

The continued evolution of cyber criminals and nation sponsored groups indicates that the probability of future events is significant. Although the Kansas Region G has not experienced a large-scale cybersecurity incident, large-scale attacks occur worldwide on a regular basis. The number of attacks is projected to increase, especially on critical infrastructure. Additionally, due to the widespread use of computers, email, and the internet, and the reliance on technology to support daily functions, the risks of cybersecurity incidents will continue to grow.

4.18.5 Projected Changes in Location, Intensity, Frequency, and Duration

Predicting the exact future changes in the frequency and intensity of cyber-attacks is challenging due to the rapidly evolving nature of threats, the expanding diversity of attack vectors, and the dynamic landscape of technology. Cyber criminals are likely to continue evolving their tactics, techniques, and procedures to become more sophisticated. This includes the use of advanced malware, ransomware, and targeted attacks that exploit vulnerabilities in both technology and human behavior.

Future geopolitical landscape conditions can influence the location and targeting of cyber-attacks. Nation-state actors may shift their focus based on political tensions, economic interests, or strategic objectives. Critical infrastructure, government entities, and corporations may be primary targets.

4.18.6 Vulnerability and Impact

Cybersecurity attacks can have a range of potential impacts on individuals, both direct and indirect, often affecting their finances and privacy. Some of the potential impacts of a cybersecurity attack may include:

- Theft of Funds: Attackers may steal money from victims' bank accounts or cryptocurrency wallets.
- Credit Card Fraud: Stolen credit card information can be used for unauthorized purchases.
- Identity Theft: Attackers may steal personal data, such as Social Security numbers, addresses, and dates of birth, to commit identity theft.
- Opening Fraudulent Accounts: Cybercriminals can use stolen information to open credit cards, loans, or other financial accounts in the victim's name.
- Data Exposure: Personal or sensitive information may be exposed, leading to loss of privacy and potential embarrassment or harm.
- Blackmail or Extortion: Attackers may use compromising information to blackmail or extort victims.

The impact of a cybersecurity attack on people can be far-reaching, affecting various aspects of their lives. Timely detection, response, and preventive measures, such as strong passwords, cybersecurity awareness, and software updates, are essential to mitigate these risks.

Cybersecurity attacks can have wide-ranging impacts on facilities, including critical infrastructure, industrial facilities, government buildings, and data centers. The extent of these impacts depends on the type and sophistication of the attack, the facility's level of cybersecurity preparedness, and the criticality of the systems and operations involved. Potential impacts may include:

- Disruption of Operations: Cyberattacks can lead to the disruption of facility operations, causing downtime that can be costly and disruptive.

- Production Delays: Manufacturing and industrial facilities may experience delays in production, affecting supply chains and delivery schedules.
- Revenue Loss: Downtime and operational disruptions can result in financial losses due to lost sales, contracts, or customer trust.
- Remediation Costs: Facilities must invest in cybersecurity measures and incident response efforts, incurring additional costs.
- Data Breach: Facilities that store sensitive data, such as customer information or proprietary research, may suffer data breaches, leading to data loss or theft.
- Regulatory Penalties: Compliance violations and regulatory fines may be imposed for failing to protect sensitive data.
- Physical Safety Risks: Attacks on critical infrastructure facilities, such as power plants or water treatment plants, can pose physical safety risks to the public and the environment.
- Industrial Accidents: Industrial control systems attacks can lead to accidents or malfunctions with serious safety implications.
- Loss of Control: Cyberattacks targeting operational technology systems can lead to a loss of control over critical processes, affecting safety and efficiency.

Attacks on facilities with environmental controls can lead to environmental damage, such as chemical spills or pollution which can affect the surrounding ecosystem and wildlife.

Cyberattacks on government operations can have wide-ranging impacts on the services provided to citizens. The effects of these attacks can vary depending on factors like the type of attack, the target's level of cybersecurity readiness, and the criticality of the systems involved, and may include:

- Disruption of Government Services: Cyberattacks can disrupt government services, leading to delays in processing applications, issuing licenses, or providing essential public services.
- Website Downtime: Government websites may become inaccessible, hindering access to information and online services.
- Financial Costs: States may incur significant expenses related to incident response, system recovery, and cybersecurity improvements.
- Loss of Revenue: Disrupted services can lead to revenue losses, impacting budgets and financial stability.
- Confidential Data Exposure: Cyberattacks can result in the exposure of sensitive citizen and employee data, including Social Security numbers, health records, and financial information.
- Regulatory Penalties: Non-compliance with data protection regulations can lead to penalties and legal consequences.
- Election Integrity: Attacks on election systems can compromise the integrity of elections, eroding trust in the democratic process.
- Emergency Response: Cyberattacks on public safety and emergency response systems can hinder responses to disasters or crises.
- Reputation Damage: Publicized cyberattacks can damage citizens' trust in government agencies and institutions.
- Legal and Regulatory Consequences: Jurisdictions may face legal liability for cybersecurity incidents, leading to lawsuits, fines, and settlements.

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 142: Cybersecurity Incident Consequence Analysis

Subject	Potential Impacts
Impact on the Public	The public is heavily reliant on technology for daily life. Any disruption to this technology caused by a cyber incident could impair the ability to conduct activities such as communications and mobile banking. Although mostly indirect, public health impacts may include loss of access of important medical information and services, personal information, and unwanted sharing of that information. Disruption in attaining medical help or resources may delay receiving proper medical attention or care.
Impact on Responders	If a cybersecurity incident were to directly impact the communications infrastructure relied upon by first responders, it would create severe disruptions in the ability to provide response services. If a cybersecurity event were to affect the 911 operations, response capabilities would be impacted significantly increasing critical response times.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. A cybersecurity event may impact an agency's ability to maintain continuity of operations based on the hazard's potential to impact power or communications infrastructure. Specifically, agencies that rely on electronic backup of critical files are vulnerable to cyber incidents. A cyber incident that disrupts access to technology at both the primary and alternative facilities would be catastrophic.
Delivery of Services	The delivery of goods and services is heavily reliant on technology for the facilitation of transactions. A cyber incident could significantly disrupt the delivery of goods and services for businesses that rely on technology for the delivery of their materials.
Property, Facilities, and Infrastructure	Property and facilities may become either unusable as a result of a cyber incident, particularly if their infrastructure if reliant on technology for sustainability. In addition, a significant majority of critical infrastructure systems are tied to technology through virtual operations and supervisory control and data acquisition systems. A cyber incident could disable the majority of systems which control critical infrastructure, as well as traffic control, dispatch, utility, and response systems.
Impact on Environment	Targeted cyber incidents can impact water or wastewater treatment facilities. The disruption of the systems tied to this infrastructure could cause water pollution or contamination. In addition, a cyber incident could impact the environment if a release of a hazardous material was triggered as a cascading effect of the incident.
Economic Conditions	A significant cyber incident could have ramifications on the state economy. Society is heavily reliant on electronic-based commerce through mobile banking, automated teller machines, and electronic trading. Any disruption to daily activities by a cyber incident could effectively halt the ability to conduct transactions electronically.
Public Confidence in Governance	In the case of a cyber incident in which significant amounts of data is stolen, the government's inability to protect confidential personal data would impact confidence. Such an incident would also subsequently cause pause regarding the security of using electronic systems for government services.

4.18.7 Hazard Planning Significance

Utilizing the above detailed formula for calculating the hazard planning significance for human caused and technological hazards, the following table details the rating of each criterion along with a composite rating:

Table 143: Cyber Security Incident Planning Significance

County	Probability	Magnitude	Warning Time	Duration	Score	Planning Significance
Butler	4	3	3	3	3.5	High
Cowley	4	3	3	3	3.5	High
Harper	4	3	3	3	3.5	High
Harvey	4	3	3	3	3.5	High
Kingman	4	3	3	3	3.5	High
Marion	4	3	3	3	3.5	High

Table 143: Cyber Security Incident Planning Significance

County	Probability	Magnitude	Warning Time	Duration	Score	Planning Significance
McPherson	4	3	3	3	3.5	High
Reno	4	3	3	3	3.5	High
Rice	4	3	3	3	3.5	High
Sedgwick	4	3	3	3	3.5	High
Sumner	4	3	3	3	3.5	High

4.19 Hazardous Material Incident

4.19.1 Hazard Description

Hazardous materials are any substances that pose a risk to health, life, or property when released or improperly handled. Generally, the term refers to materials with hazardous chemical or physical properties, though sometimes biological agents can fall under this category. The basic types of hazardous materials may be categorized according to more than six different systems; but the categories of U.S. Emergency Planning and Community Right-to-Know Act (42 U.S.C. 11002) provide a general guide to hazardous materials:

- Extremely Hazardous Substances: Materials that have acutely toxic chemical or physical properties and may cause irreversible damage or death to people or harm the environment if released or used outside their intended use.
- Hazardous Substances: Materials posing a threat to human health and/or the environment, or any substance designated by the EPA to be reported if a designated quantity of the substance is spilled into waterways, aquifers, or water supplies or is otherwise released into the environment.

4.19.2 – Location and Extent

All of Kansas Region G is vulnerable to hazardous materials incidents. Hazardous materials incidents are generally classified as:

- **Fixed Facility Incidents:** Commercial Facilities and Superfund Sites
- **Transportation Incidents:** Highway, Railway, Pipeline, Air, and Water

Tier II facilities, also known as Tier II Reporting facilities, refer to certain types of industrial or commercial establishments that are required to report information about the hazardous chemicals they store or use. This reporting is mandated under the Emergency Planning and Community Right-to-Know Act under Section 312. Key factors in Tier II reporting include:

- Hazardous Chemicals: Tier II facilities are those that store or use hazardous chemicals in quantities that meet or exceed specific thresholds established by EPCRA. Hazardous chemicals can include substances such as flammable liquids, toxic gases, and corrosive materials.
- Reporting Thresholds: Facilities must report if they have a quantity of any hazardous chemical at the facility that equals or exceeds established thresholds. These thresholds can vary depending on the specific chemical and are typically set in terms of pounds (or a lower threshold for Extremely Hazardous Substances).
- Reporting Frequency: Tier II reports must be submitted annually to the State Emergency Response Commission, the Local Emergency Planning Committee, and local fire department.
- Information Required: Tier II reports must include detailed information about the hazardous chemicals stored or used at the facility, including the chemical name, location on the site, quantities, and specific health and physical hazards.
- Community Right-to-Know: In addition to assisting emergency responders, Tier II reporting also serves the "Community Right-to-Know" aspect of EPCRA, allowing the public to access information about hazardous chemicals in their communities. This information is typically made available through public databases.
- Enforcement: Non-compliance with Tier II reporting requirements can result in penalties and fines. Facilities are responsible for ensuring accurate and timely reporting.

Transportation-related hazardous materials incidents can encompass a wide range of scenarios involving the transportation of hazardous materials, including chemicals, flammable substances, radioactive materials, and other dangerous goods. These incidents can occur during the movement of these materials by road, rail, or air These transportation-related hazardous materials incidents can include:

- Chemical Spills on Highways: Accidents involving trucks carrying hazardous chemicals can res highways. This can lead to the release of toxic, flammable, or corrosive substances, posing risks to people, the environment, and emergency responders.
- Train Derailments: Train derailments can result in the release of hazardous materials from tanker cars. These incidents can occur on both freight and passenger rail lines and may involve chemicals, fuels, or other hazardous substances.
- Aircraft Hazmat Incidents: Cargo planes and commercial aircraft can carry hazardous materials as cargo. Incidents may involve leaks, fires, or other issues related to hazardous materials on board.
- Marine Spills: Incidents involving the transport of hazardous materials by sea can lead to marine spills. These spills may involve oil, chemicals, or other substances, and can have significant environmental and economic consequences.
- Pipeline Leaks: Pipelines transport hazardous liquids and gases over long distances. Leaks or ruptures in pipelines can result in the release of hazardous materials into the environment.
- Radiological Transport Incidents: The transport of radioactive materials, including medical isotopes and nuclear fuel, carries the risk of accidents that can result in the release of radioactive substances. These incidents can have serious health and environmental consequences.
- Chemical Fires in Transit: Fires in transit vehicles carrying hazardous chemicals can be particularly challenging to control. The fire may cause chemical reactions, leading to toxic smoke or explosions.
- Cargo Container Incidents: Shipping containers transported by truck or rail can contain hazardous materials. Incidents involving these containers may include leaks, fires, or chemical reactions.
- Intermodal Transport Incidents: When goods are transferred between different modes of transportation (e.g., ship to truck), there is the potential for mishandling or spills during these transfers.

Counties with multiple chemical facilities experience a greater risk of a chemical incident than other locations. However, almost every community in Kansas Region G has at least one fixed facility that stores, produces, or utilizes hazardous material. Hazardous materials shipments move through Kansas Region G annually. These shipments can occur at any time, day or night, and by means of road, rail, or air, and often through areas with urbanized, high volume traffic routes.

4.19.3 Previous Occurrences

The United States Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) is a federal agency responsible for regulating the safe and secure transportation of hazardous materials by all modes of transportation, including pipelines, trucks, trains, and aircraft. PHMSA's primary mission is to protect people and the environment from the risks associated with the transportation of hazardous materials. PHMSA plays a crucial role in safeguarding public safety, protecting the environment, and ensuring the integrity of the nation's hazmat transportation infrastructure. Its work encompasses a wide range of hazardous materials, including chemicals, radioactive materials, explosives, and more. The agency collaborates with industry stakeholders, state and local governments, and other federal agencies to achieve its safety and security objectives.

For the five-year period from 2018 to 2023, PHMSA has reported over 2,300 hazardous materials incidents in Kansas. Of these incidents, five of note occurred in Kansas Region G. One incident resulted in a serious evacuation and four resulted in a major artery closure. No fatalities or injuries were reported, and no radiological incidents were reported.

4.19.4 Probability of Future Events

Data from PHSMA indicates that the probability of a hazardous material incident during any given year is 100%. However, data indicates that the large majority of these incident will be small in scale and cause no evacuation, injuries, or deaths,

4.19.5 Projected Changes in Location, Intensity, Frequency, and Duration

Projecting specific changes in the location, intensity, and frequency of hazardous materials events involves numerous variables, including future industrial activities, changes in transportation systems, and more stringent regulatory measures. The location of hazardous materials events is often influenced by urbanization and industrialization. The vulnerability of communities to hazardous materials incidents may change based on demographic shifts, land-use

changes, and socioeconomic factors. Population density and proximity to industrial sites influence the po of such incidents.

The continued transportation of hazardous materials by road, rail, and air poses inherent risks. Changes in transportation patterns, such as increased volumes or altered routes, can impact the potential for accidents and spills. However, the adoption of new technological solutions, such as sensor technologies, remote monitoring, and safety measures, can contribute to the mitigation of hazardous materials risks.

Changes in climate patterns, such as extreme weather events, floods, or wildfires, can influence the frequency and intensity of hazardous materials incidents. Events like floods or wildfires may impact facilities handling hazardous materials.

As previously noted, Kansas Region G facilities have seen no major changes in the past five years, with only modest repairs and upgrades being conducted and no major rehabilitation or construction projects completed. As such, the risk to jurisdictional facilities has remained static since the completion of the 2019 HMP.

4.19.6 Vulnerability and Impact

Kansas Region G's first line of defense in protecting public health, safety, and welfare in a hazardous materials event are trained local responders and the Office of the State Fire Marshal. The Office of the State Fire Marshal Hazardous Materials Division was developed in 1999 to enhance the safety of Kansans by making trained, equipped hazardous materials teams available throughout the state. These teams support local first responders in hazardous materials incidents, accidents, weapons of mass destruction and acts of terrorism.

Hazardous materials teams exist through contracts between individual local fire departments and the Office of the State Fire Marshal. The fire departments agree to provide team members and regional response outside their local jurisdiction and the Office of the State Fire Marshal provides training and supplements equipment at no cost to the department. The ten regional response teams, consisting of nationally accredited hazardous materials technicians, are fully equipped to enter the area immediately surrounding the hazardous material in order to monitor the environment and mitigate the incident. The regional response teams comprise a network and are able to support each other with personnel and or equipment when needed.

These teams can respond to most areas in Kansas within an hour or less in order to address hazardous materials incidents. The regional response teams are located in the following areas:

- Coffeyville
- Colby
- Emporia
- Ford County
- Manhattan
- Overland Park
- Salina
- Sedgwick County
- Topeka

A hazardous materials release can have serious and immediate impacts on human health and safety, as well as long-term effects depending on the nature of the hazardous materials involved, the release's magnitude, and the proximity of individuals to the incident. Acute health effects from a hazardous materials release can include:

- Chemical Exposure: Depending on the type of hazardous material, exposure can lead to symptoms such as respiratory distress, skin burns, eye irritation, nausea, vomiting, and headaches.
- Toxicity: Exposure to highly toxic substances can cause severe poisoning, organ damage, and even death.

- Asphyxiation: Some hazardous materials, like certain gases, can displace oxygen and lead to asp when inhaled in high concentrations.

Injuries and Trauma:

- Physical Injuries: Explosive releases or fires involving hazardous materials can cause physical injuries such as burns, cuts, and blunt force trauma.
- Psychological Trauma: Witnessing or being affected by a hazardous materials incident can lead to psychological trauma, including post-traumatic stress disorder (PTSD) and anxiety.

Long-Term Health Effects from a hazardous materials release can include:

- Chronic Illnesses: Exposure to hazardous materials may lead to chronic health conditions, including cancer, respiratory diseases, neurological disorders, and reproductive problems.
- Delayed Effects: Some hazardous substances have delayed health effects, with symptoms appearing days, months, or even years after exposure.

Additionally, a hazardous material release can result in impacted populations requiring:

- Evacuation: To protect public safety, authorities may order evacuations of affected areas, displacing residents from their homes.
- Temporary Shelter: Evacuated individuals may require temporary shelter, food, and medical care.

The direct risk or vulnerability to property and facilities from a hazardous materials incident is generally limited. Impacts include restricting access to a facility or potential damage to the facility from corrosive agents. Direct risk and vulnerability to actual structures is limited due to the characteristics of a hazardous materials incident.

Critical facilities and infrastructure may suffer secondary impacts from a hazardous materials incident. Access may be restricted due to closures, causing employee absenteeism which could indirectly impact the ability for a critical facility to operate. Without necessary operators, critical infrastructure may be susceptible to indirect failure.

A hazardous materials release can have significant and lasting impacts on the environment, depending on the type and quantity of hazardous materials involved, the location of the release, and the effectiveness of response and cleanup efforts. Environmental impacts can range from immediate and localized effects to long-term ecological damage and may include:

- Soil Contamination: Hazardous materials can seep into the soil, contaminating it with toxic substances. This can affect soil quality and fertility.
- Agricultural Damage: Contaminated soil may harm crops, leading to reduced agricultural yields or the need to abandon affected fields.
- Surface Water Contamination: Hazardous materials can enter rivers, lakes, and streams, leading to water pollution. This can harm aquatic ecosystems, fish, and wildlife.
- Groundwater Contamination: Contaminants can infiltrate underground aquifers, potentially affecting drinking water supplies and requiring costly remediation efforts.
- Habitat Destruction: Contamination can harm natural habitats, disrupt ecosystems, and threaten the survival of plant and animal species.
- Bioaccumulation: Toxic substances can accumulate in the food chain, leading to health issues for wildlife and potentially impacting humans who consume contaminated organisms.

Some hazardous materials are persistent and can remain in the environment for extended periods, causing ongoing harm. Environmental recovery from hazardous materials releases can be slow and challenging, requiring extensive remediation efforts.

A hazardous materials incident can have wide-ranging impacts on local operations. These impac government operations, strain resources, and pose challenges to maintaining public order. Some of the impacts of a hazardous materials release on operations may include:

- Emergency Response and Healthcare: Local agencies must rapidly mobilize emergency response teams, medical personnel, and healthcare facilities to address a release. The surge in demand for medical resources can strain healthcare systems, including hospitals, clinics, and emergency services.
- Resource Allocation: Local agencies may need to allocate resources to respond to the incident. This includes personnel, equipment, and facilities.
- Transportation and Supply Chain Disruption: Transportation infrastructure closures can affect the movement of essential goods and services, including medical supplies, food, and fuel.
- Economic Impact: The economic consequences of a hazardous materials incident can be severe. Business closures, reduced consumer confidence, and trade disruptions can lead to financial losses, unemployment, and economic instability.
- Public Services: Essential public services, such as law enforcement, fire services, and sanitation, may be stretched thin due to the demands of responding to an incident.
- Agency Coordination: Coordination and communication among various state agencies and with federal authorities will be tested during a hazardous materials incident. Local emergency management agencies will activate emergency response plans and incident command structures.

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 144: Hazardous Materials Incident Consequence Analysis

Subject	Potential Impacts
Impact on the Public	Cities within Kansas Region G with dense populations, particularly along major travel routes, are the most vulnerable (with an emphasis on any particularly vulnerable groups, such as infants and young children in day-care centers, children in schools, the elderly in residential facilities, hospital patients, etc.). Varying materials will have different effects on the population as well as environmental effects which will dilute or increase potency. Protective measures will need to be taken particularly for those of the most vulnerable communities.
Impact on Responders	Hazardous material incidents can create a dangerous environment and significant challenge for first responders. First responders may have to manage the evacuation of people from the area impacted by an incident, as well as direct traffic, close roads, operate shelters, and take care of the injured and sick. First responders must control their own exposure to the incident and ensure the correct PPE is utilized. Equipment may also be damaged or destroyed due to the impact of the incident, which may lead to a decrease in response capabilities.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. A hazardous materials incident may impact an agency's ability to maintain continuity of operations based on the incidents potential to cause workforce absenteeism, contamination, or destruction of public facilities.
Delivery of Services	The ability to deliver services can be impacted locally, regionally, or statewide depending on the characteristics of the incident. To reduce the public's potential exposure to dangerous materials, roadway and bridge closures may be required, as well as transit service disruptions. Businesses and places of commerce may completely shut down due to chemical incidents, which leads to the disruption of goods and services.
Property, Facilities, and Infrastructure	Transportation, governmental operations, and infrastructure facilities may be disrupted during a significant incident. Roads and bridges can be completely obstructed and

Table 144: Hazardous Materials Incident Consequence Analysis

Subject	Potential Impacts
	require cleanup. Incidents can impact access to homes and critical entities such as hospitals, schools, and supermarkets, as well as other critical facilities. Safe access to homes, vehicles, structures, and resources may adversely affect response activities. Power loss can lead to disruption of critical infrastructure and technology.
Impact on Environment	Agriculture crops and livestock are extremely susceptible to the adverse effects of biological incidents that may cause contamination of a large area of land livestock. biological incidents may impact the environment long-term by disturbing or killing wildlife and adversely affecting nature preserves.
Economic Conditions	Hazardous materials incidents pose a fiscal impact on the local and state governments. Local, county, and state resources may be required during a large incident therefore reducing their availability for future events. Additionally, private businesses may not be able to maintain operations during or after an incident if they are impacted, which would impact the economy.
Public Confidence in Governance	The public's confidence in the state's governance is affected by immediate local and state response through direct and effective actions. Efficiency in response and recovery operations is critical in keeping public confidence high.

4.19.7 Hazard Planning Significance

Utilizing the above detailed formula for calculating the hazard planning significance for human caused and technological hazards, the following table details the rating of each criterion along with a composite rating:

Table 145: Hazardous Materials Incident Planning Significance

County	Probability	Magnitude	Warning Time	Duration	Score	Planning Significance
Butler	4	2	3	1	3.0	High
Cowley	4	1	3	1	2.7	Moderate
Harper	4	1	3	1	2.7	Moderate
Harvey	4	1	3	1	2.7	Moderate
Kingman	4	1	3	1	2.7	Moderate
Marion	4	1	3	1	2.7	Moderate
McPherson	4	2	3	1	3.0	Moderate
Reno	4	2	3	1	3.0	High
Rice	4	1	3	1	2.7	Moderate
Sedgwick	4	2	3	1	3.0	High
Sumner	4	1	3	1	2.7	Moderate

4.20 Infrastructure Failure

4.20.1 Hazard Description

Infrastructure failure refers to the malfunction, breakdown, or collapse of critical infrastructure systems or components that are essential for the functioning of the State. These failures can disrupt essential services, impact public safety, and lead to economic losses. There are many potential causes of infrastructure failure, including:

- Aging Infrastructure: Many infrastructure systems, such as bridges, roads, and water pipelines, have exceeded their designed lifespan. Over time, the materials degrade, and the risk of failure increases.
- Earthquakes: Seismic events can damage or destroy buildings, bridges, dams, and utility systems.
- Floods: Flooding can damage electrical systems, disrupt transportation, and contaminate water supplies.
- Severe Weather: High winds and heavy rainfall can damage infrastructure.
- Extreme Heat: Prolonged periods of extreme heat can cause roads to buckle, power lines to sag, and strain electrical grids.
- Freezing Temperatures: Cold weather can lead to frozen water pipes, which can burst and disrupt water supply.
- Design Flaws and Poor Maintenance: Inadequate design, construction, or maintenance practices can result in structural weaknesses or deteriorating infrastructure.
- Corrosion and Erosion: Infrastructure components, particularly those involving metals, can deteriorate due to corrosion over time. Erosion of natural landscapes can damage infrastructure.
- Material Failures: Inadequate materials or the use of substandard materials during construction can lead to premature infrastructure failure.
- Overloading and Overuse: Bridges, roads, and other structures can fail if they are subjected to loads beyond their designed capacity. Water and wastewater systems can fail if they are overwhelmed by excessive demand.
- Cyberattacks: Critical infrastructure systems, such as power grids, water treatment plants, and transportation systems, can be vulnerable to cyberattacks, which can disrupt operations and compromise safety.
- Terrorism and Sabotage: Deliberate acts of terrorism or sabotage can target critical infrastructure, leading to failures and disruptions.
- Environmental Changes: Long-term environmental changes due to climate change, can threaten infrastructure.

Infrastructure failures can have significant consequences, including economic losses, public safety risks, and disruptions to daily life. Preventing such failures and ensuring the resilience of critical infrastructure often require proactive measures such as regular maintenance, improvements in design and construction practices, disaster preparedness, and investments in modernization and upgrades.

4.20.2 – Location and Extent

Details concerning Kansas Region G's infrastructure were sourced from the 2020 Report Card for Kansas's Infrastructure from the American Society of Civil Engineers (ASCE). The report provides information on infrastructure components and provides a letter grade to indicate condition. Grades are issued based on the following scale:

Table 146: ASCE Infrastructure Grade System

Grade	Description
A: Exceptional	The infrastructure in the system or network is generally in excellent condition, typically new or recently rehabilitated, and meets capacity needs for the future. A few elements show signs of general deterioration that require attention. Facilities meet modern standards for functionality and are resilient to withstand most disasters and severe weather events.
B: Adequate for Now	The infrastructure in the system or network is in good to excellent condition; some elements show signs of general deterioration that require

Table 146: ASCE Infrastructure Grade System

Grade	Description
	attention. A few elements exhibit significant deficiencies. Safe and reliable with minimal capacity issues and minimal risk.
C: Mediocre, Requires Attention	The infrastructure in the system or network is in fair to good condition; it shows general signs of deterioration and requires attention. Some elements exhibit significant deficiencies in conditions and functionality, with increasing vulnerability to risk.
D: Poor, At Risk	The infrastructure is in poor to fair condition and mostly below standard, with many elements approaching the end of their service life. A large portion of the system exhibits significant deterioration. Condition and capacity are of significant concern with strong risk of failure.
F: Failing/Critical, Unfit for Purpose	The infrastructure in the system is in unacceptable condition with widespread advanced signs of deterioration. Many of the components of the system exhibit signs of imminent failure.

Source: ASCE

The following table indicates the grades by the State of Kansas received for infrastructure components:

Table 147: ASCE Kansas Infrastructure Grades

Infrastructure Component	Grade
Aviation	C-
Bridges	C
Dams	C-
Drinking Water	C
Energy	C
Levees	C
Rail	C
Roads	C-
Stormwater	C-
Overall Grade	**C**

Source: ASCE

The Aviation Division of the Kansas Department of Transportation supports airfield pavement management programs and calculates pavement condition for all airports within its system apart from Dwight D. Eisenhower National airport in Wichita, which is required to perform the program as a small hub airport. The most recent state-wide pavement management report indicated pavement on 79 of 80 airports examined as having a condition of fair or less than fair on 51% of the pavement area, and a condition of satisfactory or good on the remaining 49% of the pavement. Runway pavement condition, of critical importance to operations, is reported as 50% of the runways available fall below a fair condition.

Kansas ranks fifth in the nation for total number of bridges with approximately 5,000 state-owned, 19,500 locally-owned, and 400 Kansas Turnpike Authority owned structures, making up the 25,001 Kansas bridge inventory. The majority of local bridges are owned by counties. The average age of a Kansas bridge is 48 years, with over 20% of the bridges exceeding the modern 75-year design life

Railroads in Kansas consist of 4,700 miles of track which transport approximately 340,000,000 tons of freight per year. While the 2,800 miles of track owned by the major rail companies is typically well maintained, short line tracks that carry lower traffic volumes may not have adequate funding in place for necessary maintenance and upgrades.
Kansas has over 140,000 miles of public roadways. The two agencies responsible for the major highways and interstates are the Kansas Department of Transportation and the Kansas Turnpike Authority, who maintain 10,300 miles (7.4%) and 236 miles (less than 0.2%) of the state's total public road miles, The remainder of road network is maintained by cities and counties.

In general, electricity in Kansas Region G is provided by either investor-owned utilities or rural electri (RECs). RECs are not-for-profit, member-owned electric utilities. Kansas RECs are governed by a board of trustees elected from the membership. Most Kansas RECs were set up under the Kansas Electric Cooperative Act, which, together with the federal Rural Electrification Act of 1934, made electric power available to rural customers. Information on regional electrical suppliers may be found at www.kec.org/servicearea_map.html. Additionally, locations of electric certified areas and transmission lines may be found at www.kcc.state.ks.us/maps/ks_electric_certified_areas.pdf.

4.20.3 Previous Occurrences

Small scale infrastructure failures occur as a secondary impact from a natural disaster, such as a temporary power outage due to a thunderstorm or a communications outage from downed lines following a severe storm. Kansas Region G experiences these minor disruptions routinely and manages them through coordination across agencies and with the private sector. Specifically, when utility and/or infrastructure failure does occur, utility providers generally respond quickly to restore service. However, depending on the cause of the utility disruption, events of prolonged outages do occur.

4.20.4 Probability of Future Events

The probability of a utility failure can vary depending on a range of factors, including the type of utility, the condition of the infrastructure, weather conditions, and maintenance practices. Utility providers typically have systems and protocols in place to minimize the risk of utility failures, and they work to respond quickly to any outages or disruptions. The probability of a utility failure may also vary seasonally or during extreme weather events.

4.20.5 Projected Changes in Location, Intensity, Frequency, and Duration

Climate change can influence the frequency, intensity, and patterns of extreme weather events. An increase in these events can cause a commensurate increase in infrastructure failures. It is expected that climate change will impact infrastructure in the following ways:

- Increased Frequency of Extreme Weather Events: Climate change is associated with an increased frequency and intensity of extreme weather events, such as heatwaves, heavy rainfall, and wildfires. These events can damage utility infrastructure, leading to outages.
- Heatwaves and Electrical Grids: Rising temperatures can lead to more frequent and prolonged heatwaves. High temperatures can strain electrical grids, leading to increased demand for electricity for cooling and potentially causing power outages.
- Flooding and Water Utilities: More frequent and severe flooding events can impact water supply and wastewater treatment facilities, causing contamination and disruptions in water services.
- Wildfires and Power Lines: Climate change can contribute to more extensive and intense wildfires. In regions prone to wildfires, power lines and electrical equipment are at risk of igniting fires, leading to power outages and infrastructure damage.
- Extreme Weather and Gas Pipelines: Extreme weather events, including extreme cold or heat, can impact natural gas pipelines. Cold temperatures can freeze pipelines, while heatwaves can affect gas compressors and transmission systems.
- Changing Precipitation Patterns: Altered precipitation patterns, such as more intense rainfall or prolonged droughts, can affect the availability and quality of water resources, impacting water utilities and hydropower generation.

As previously noted, Kansas Region G Island facilities have seen no major changes in the past five years, with only modest repairs and upgrades being conducted and no major rehabilitation or construction projects completed. As such, the risk to state facilities has remained static since the completion of the 2019 HMP.

4.20.6 Vulnerability and Impact

Infrastructure failure can have significant and immediate impacts on people. The specific impacts can vary depending on the type of utility that fails (electricity, water, gas) and the duration of the outage, and may include:

- Disruption of Daily Life: Utility failures can disrupt daily routines, including cooking, bathi cooling homes, and using electronic devices. Lack of electricity can also disrupt businesses, schools, and healthcare facilities.
- Safety Concerns: Utility failures, particularly in electrical and gas systems, can pose safety risks such as fires, electrical hazards, and gas leaks. Lack of electricity can result in the loss of lighting, increasing the risk of accidents and falls.
- Health Implications: Medical equipment that relies on electricity can become non-functional, posing risks to individuals with medical conditions. Lack of access to clean water can impact hygiene and health. Utility failures in healthcare facilities can impact the ability to provide medical care and support for patients. Prolonged utility failures, especially during extreme weather events, can lead to stress, anxiety, and discomfort. Vulnerable populations, such as the elderly, children, and those with special needs, may be particularly affected.

Utility failures can have significant impacts on critical infrastructure and facilities. The specific impacts can vary depending on the type of utility affected, the duration of the outage, and the criticality of the infrastructure, and may include:

- Disruption of Operations: Utility failures can disrupt the normal operations of critical facilities, including hospitals, emergency response centers, data centers, and transportation hubs.
- Compromised Safety and Security: Loss of electricity can impact security systems, including surveillance cameras and alarm systems. Critical facilities may rely on backup power sources to maintain safety and security.
- Loss of Communication: Utility failures can disrupt communication systems, affecting the ability of critical facilities to coordinate responses and communicate with staff and the public.
- Healthcare Impacts: Hospitals and healthcare facilities may experience disruptions in patient care due to power outages, affecting the health and safety of patients. Medical equipment may require backup power to continue functioning.
- Water and Sanitation Services: Water utility failures can disrupt water supply to critical facilities, impacting sanitation services, firefighting capabilities, and patient care. Wastewater treatment plants may be affected, posing environmental and health risks.
- Transportation Disruptions: Transportation infrastructure, including airports, train stations, and traffic management systems, may be impacted by utility failures, leading to travel disruptions.
- Safety Hazards: Gas utility failures can result in gas leaks, posing fire and explosion hazards to critical infrastructure and nearby areas. Electrical failures may lead to equipment malfunctions, increasing the risk of accidents and safety incidents.

In general, a utility failure would have little effect on the environment. However, specific circumstances of the failure, such as a chemical leak, a downed power line in a fire prone area, or loss of wastewater containment could pose a concern. The impacts from those type of events can range from relatively minor and localized effects to more significant and widespread environmental consequences, and may include:

- Wildfires: Electrical utility failures, such as downed power lines or equipment malfunctions, can trigger wildfires. Wildfires can have devastating effects on natural landscapes and ecosystems.
- Water Pollution: Water utility failures, such as sewage system overflows or treatment plant malfunctions, can lead to the release of untreated wastewater into rivers, lakes, or oceans. This can result in water pollution, harm aquatic ecosystems, and affect drinking water quality downstream.
- Chemical Spills: Utility failures, particularly in industrial settings, can result in chemical spills and releases. These spills can harm the environment, contaminate soil and water, and endanger wildlife.

Infrastructure failure can have significant impacts on governmental operations, affecting the ability to provide essential services, respond to emergencies, and maintain critical infrastructure. The specific impacts can vary depending on the type of utility affected and the duration of the outage, and may include:

- Disruption of Emergency Services: Failures can disrupt the operations of emergency respo including police, fire departments, and medical services. This can impede their ability to respond to accidents, fires, and medical emergencies.
- Communication Challenges: Failures, particularly in telecommunications and internet infrastructure, can hinder communication between government agencies, first responders, and the public. This can impact coordination during emergencies.
- Data Loss and Information Technology Disruptions: Electrical outages and information technology infrastructure failures can result in data loss and disrupt government operations that rely on digital records and systems.
- Transportation Disruptions: Transportation infrastructure, such as traffic management systems and public transit, may be impacted by utility failures, leading to travel disruptions and challenges in managing traffic flow.
- Public Health Services: Healthcare facilities and public health agencies may experience disruptions in patient care, vaccination programs, and disease surveillance during utility failures.
- Safety Risks: Failures can pose safety risks to government employees and the public, particularly when they result in electrical hazards, gas leaks, or water contamination.
- Economic Consequences: The economic impact of infrastructure failures can extend to governmental operations, affecting budgets and resources available for public programs and services.
- Disaster Response and Recovery: Failures may occur during natural disasters, adding complexity to state response and recovery efforts. Coordination among agencies becomes crucial.

Although the limitless variables make it difficult to estimate future losses, FEMA has developed standard loss of use estimates in conjunction with their Benefit-Cost Analysis methodologies to estimate the cost of lost utilities on a per-person, per-use basis.

Table 148: FEMA Benefit-Cost Analysis

Loss of Electric Power	Cost of Complete Loss of Service
Total Economic Impact	$131 per person per day
Loss of Potable Water Service	Cost of Complete Loss of Service
Total Economic Impact	$103 per person per day
Loss of Wastewater Service	Cost of Complete Loss of Service
Total Economic Impact	$45 per person per day
Loss of Road/Bridge Service	Cost of Complete Loss of Service
Vehicle Delay Detour Time	$29.63 per vehicle per hour (one-way trips)
Vehicle Delay Mileage	$0.54 per mile (or current federal mileage rate)

Source: FEMA BCA Reference Guide, June 2009, Appendix C

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 149: Infrastructure Failure Consequence Analysis

Subject	Potential Impacts
Impact on the Public	Critical infrastructure failures can lead to heavy flooding, power loss, property damage, injury, and even death. Roadways may be obstructed or inaccessible to the public, challenging transport and resource acquirement activities. A failure of critical infrastructure would have a direct impact on public health. Power outages, transit failures, access to clean water would create severe and immediate public health impacts.

Table 149: Infrastructure Failure Consequence Analysis

Subject	Potential Impacts
Impact on Responders	Infrastructure failure would have a direct and immediate impact on first responder's ability to respond effectively. Critical infrastructure failure may cause inaccessibility of roadways. Communications system failure would impact the responders' ability to communicate their status or response capability.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. An infrastructure failure may impact an agency's ability to maintain operations based on the incidents impact, including access to facility by transportation systems, and the availability of utilities, communications, energy, and water and wastewater systems.
Delivery of Services	Delivery of services will be disrupted due to critical infrastructure failure. Transit systems may face closures due to public safety concerns. The ability to deliver food, drinking-water, and services will be impacted due to problems with accessibility and transport abilities. Communications, transportation, and governmental services operations would be impacted due to power failure and accessibility challenges.
Property, Facilities, and Infrastructure	Roads and bridges may be impacted, water and sewer systems may be damaged, leading to the issue of sanitation and waste collection. Property of homes and businesses may be completely destroyed if situated close to the failure point.
Impact on Environment	The impacts on the environment of critical infrastructure would vary based on the event. Failure of wastewater plants would result in spreading pollution and hazardous materials throughout the environment including large bodies of water. Ecosystems and natural habitats may be destroyed, causing migration or death of wildlife.
Economic Conditions	Critical infrastructure failure would have a direct and considerable fiscal impact on the local government, however through federal disaster may be offset. Additionally, infrastructure failure in every sector has the potential to impact the ability of businesses to operate. If the private sector was not able to maintain operability, there would be continued revenue loss until operability was restored.
Public Confidence in Governance	Critical infrastructure failure would have a direct and immediate impact on the state's ability to provide governance, maintain order, and ensure the continuity of public services. Given a prolonged failure, the public would become increasingly distrustful of the government's abilities. Direct, immediate, and effective actions must be taken in order to maintain public confidence.

4.20.7 Hazard Planning Significance

Utilizing the above detailed formula for calculating the hazard planning significance for human caused and technological hazards, the following table details the rating of each criterion along with a composite rating:

Table 150: Infrastructure Failure Planning Significance

County	Probability	Magnitude	Warning Time	Duration	Score	Planning Significance
Butler	3	3	3	2	2.5	Moderate
Cowley	3	3	3	2	2.5	Moderate
Harper	3	3	3	2	2.5	Moderate
Harvey	3	3	3	2	2.5	Moderate
Kingman	3	3	3	2	2.5	Moderate
Marion	3	3	3	2	2.5	Moderate
McPherson	3	3	3	2	2.5	Moderate
Reno	3	3	3	2	2.5	Moderate
Rice	3	3	3	2	2.5	Moderate
Sedgwick	3	3	3	2	2.5	Moderate
Sumner	3	3	3	2	2.5	Moderate

4.21 Terrorism

4.21.1 Hazard Description

The United States does not have a standardized definition of terrorism that is agreed upon by all agencies. The Federal Bureau of Investigation generally defines terrorism as:

"the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives."

Terrorism is characterized by the use of violence, intimidation, or the threat of violence to instill fear, achieve political, religious, ideological, or social objectives, and disrupt the normal functioning of a society. It often involves acts of violence deliberately targeting civilians. Key elements and characteristics of terrorism include:

- Political or Ideological Motivation: Terrorism is often driven by political, religious, ideological, or social goals. Perpetrators seek to advance a particular agenda or bring about change in accordance with their beliefs.
- Use of Violence: Terrorism involves the use of violence, which can range from bombings, shootings, and kidnappings to cyberattacks and biological threats. The intent is to cause harm and instill fear.
- Targeting Civilians: Terrorist acts typically target civilians or non-combatants, rather than military or government personnel. This is done to maximize the psychological impact and create a sense of vulnerability within society.
- Psychological Impact: The primary objective of terrorism is to create fear and anxiety within the population. The fear generated by terrorist acts can have profound psychological and societal effects.
- Non-State Actors: Terrorism is often associated with non-state actors, such as terrorist organizations, extremist groups, or individuals acting independently. However, some state entities have also been accused of engaging in acts that meet the criteria of terrorism.
- Symbolism: Terrorist acts are often symbolic in nature, targeting specific locations, landmarks, or institutions that hold significance to the perpetrators or their cause.

Terrorism in the United States can take various forms, and the nature of terrorist threats has evolved over time. Common forms of terrorism in the United States include:

- Domestic Terrorism: Domestic terrorism involves acts of violence or intimidation committed by individuals or groups within the United States. These acts are typically driven by extremist ideologies, such as far-right extremism, far-left extremism, or other radical beliefs. Recent examples of domestic terrorism include attacks on religious institutions, acts of violence against minority communities, and violent protests.
- Far-Right Extremism: Far-right extremism refers to ideologies and movements characterized by extreme nationalism, racism, and opposition to government authority. Some far-right extremists have engaged in acts of violence targeting minority communities, government officials, or perceived enemies.
- Far-Left Extremism: Far-left extremism encompasses a range of radical ideologies, including anarchist and socialist beliefs. While not as prevalent as far-right extremism, far-left extremists have been involved in protests, clashes with law enforcement, and acts of violence.
- Religiously-Motivated Terrorism: Religious extremism can lead to acts of terrorism. In the United States, this has included attacks by individuals or groups inspired by extremist interpretations of Islam, Christianity, or other religions.
- Examples include the 1993 World Trade Center bombing and the 2009 Fort Hood shooting.
- Single-Actor Terrorism: Lone-wolf terrorism involves individuals who carry out acts of violence without direct affiliation with established terrorist organizations. These individuals are often self-radicalized and may be

inspired by online propaganda. Examples include the 1995 Oklahoma City bombing and the Marathon bombing.

- Eco-Terrorism: Eco-terrorism refers to acts of violence or sabotage carried out in the name of environmental activism. These acts target industries or organizations perceived as harmful to the environment.
- Examples include arson attacks on logging facilities or animal testing labs.
- Cyberterrorism: Cyberterrorism involves using computer technology to disrupt or damage critical infrastructure, institutions, or networks. While not as common as other forms of terrorism, cyberattacks pose significant risks. Cyberattacks by state-sponsored actors or independent hackers can target government agencies, corporations, and infrastructure.

The U.S. government, law enforcement agencies, and intelligence services actively monitor and address various forms of terrorism. Counterterrorism efforts include preventive measures, intelligence gathering, community engagement, and law enforcement actions. Public awareness, community outreach, and reporting suspicious activities also play a role in countering terrorism in the United States.

Whether mass shooting events (especially school shootings) are considered acts of terrorism can be a subject of debate and can vary depending on the specific circumstances and legal definitions in different jurisdictions. There is no standardized definition of a mass shooting. The United States Investigative Assistance for Violent Crimes Act defines a mass killing as three or more killings in a single incident while the Federal Bureau of Investigation defines a mass shooting as any incident in which at least four people were shot and killed. Mass shootings involve acts of violence carried out in public places, often by individuals who may have personal grievances, mental health issues, or other motivations not necessarily connected to a political or ideological agenda. While mass shootings are undoubtedly acts of violence that result in tragedy and loss of life, they may not always fit the traditional definition of terrorism, as the primary motivation is often not to advance a political or ideological cause. If the shooter's primary aim is to instill fear, advance a political agenda, or promote a particular ideology, it may be more likely to be classified as terrorism. However, if the shooter's motivation is primarily personal, such as a desire for revenge or mental health issues, the act may not be considered terrorism under many legal definitions.

4.21.2 – Location and Extent

All of Kansas Region G is vulnerable to terrorism, particularly in densely populated urban areas or crowded venues. However, it is nearly impossible to pinpoint the exact location of the next terrorist attack. Through information and intelligence sharing, public safety personnel at the local, state, and federal level help identify potential targets for terrorist activity. Although it is impossible to predict for certain where the next terrorist attack will take place, terrorists generally target large, crowded places, such as malls, parks, and other large public or social gatherings, in order to maximize damage. In addition, some acts of terror are conducted against critical infrastructure in an effort to weaken or cripple services such as transportation, communications, and electricity.

The extent of terrorism can vary significantly depending on a range of factors including the tactics, capabilities, and the effectiveness of counterterrorism efforts. Tactics employed may include bombings, firearm attacks, kidnappings, assassinations, cyberattacks, or a combination. The choice of targets, such as civilians, government institutions, religious sites, or critical infrastructure can also affect the extent of the terrorist threat. The extent of terrorism may also be influenced by public support or sympathy for extremist ideologies, as well as the recruitment and radicalization of individuals into terrorist organizations. Socio-economic factors, such as poverty, unemployment, and inequality, can contribute to the conditions conducive to terrorism.

The effectiveness of counterterrorism efforts by governments and international organizations can influence the extent of terrorism. Robust counterterrorism measures can disrupt terrorist networks and reduce the frequency and impact of attacks. Efforts to address terrorism typically involve a combination of security measures, intelligence sharing, diplomacy, counter-radicalization programs, and community engagement. Reducing the extent of terrorism often requires a multifaceted approach that addresses both the root causes and the immediate security threats associated with terrorism.

4.21.3 Previous Occurrences

Although there has not been a terrorist attack in Kansas Region G, this does not reduce the significance of the threat. There have been numerous examples of terrorism that have occurred in the United States, and specifically terrorist events that have occurred in the region. Of note:

- Alfred P. Murrah Federal Building, Oklahoma City (1995), 168 killed.

4.21.4 Probability of Future Events

Assessing the probability of a terrorist attack in Kansas Region G involves complex analysis conducted by intelligence and law enforcement agencies such as the U.S. Department of Homeland Security, the Federal Bureau of Investigation, and the Kansas State Police. These agencies regularly provide threat assessments and security information to the public based on local, international, and geopolitical intelligence.

4.21.5 Projected Changes in Location, Intensity, Frequency, and Duration

Predicting the specific changes in the location, intensity, and frequency of terrorist events is highly challenging due to the complex and dynamic nature of terrorism. Terrorism is influenced by a multitude of factors, including political, social, economic, and ideological considerations. Additionally, responses by governments, international cooperation, and evolving global dynamics contribute to the uncertainty surrounding future projections.

The increasing reliance on technology provides terrorists with new tools and methods for conducting attacks. Cyberterrorism can be used to disrupt critical infrastructure or compromise information systems may become more prevalent. Additionally, the use of online platforms for radicalization and recruitment purposes is a growing concern. Changes in the online landscape, social media platforms, and encryption methods can influence the reach and effectiveness of extremist propaganda.

Climate change can indirectly influence terrorism by exacerbating certain conditions that may contribute to the emergence and persistence of terrorist threats. While climate change itself does not directly cause terrorism, it can interact with other factors to create a more conducive environment for terrorist activities. Climate change can lead to resource scarcity, such as water and arable land shortages, which may intensify poverty. This scarcity can create conditions that extremist groups exploit. Additionally, climate-induced displacement and migration can result from events like sea-level rise, extreme weather events, and droughts. Displaced populations can become vulnerable to recruitment by extremist groups, as they may lack basic necessities and economic opportunities.

As previously noted, Kansas Region G facilities have seen no major changes in the past five years, with only modest repairs and upgrades being conducted and no major rehabilitation or construction projects completed. As such, the risk to state facilities has remained static since the completion of the 2019 SHMP.

4.21.6 Vulnerability and Impact

Terrorism can have profound and far-reaching impacts on individuals and communities. These effects can be physical, psychological, social, and economic, and may include:

- Loss of Life and Injury: Terrorism often results in the loss of innocent lives and injuries to survivors. Victims may suffer physical trauma, disabilities, and long-term health issues.
- Psychological Trauma: Many survivors of terrorist attacks and witnesses may experience Post-Traumatic Stress Disorder, characterized by flashbacks, nightmares, anxiety, and emotional distress. Children and young people may be particularly vulnerable to the psychological effects of terrorism, which can impact their emotional and cognitive development.
- Anxiety and Depression: Terrorism can lead to increased anxiety and depression in affected individuals and communities.
- Grief and Loss: Those who lose loved ones in terrorist attacks may experience profound grief and loss, which can be long-lasting.

Terrorism can disrupt social structures and community cohesion, leading to feelings of insecurity and mistrust. Fear of future attacks may limit social activities and interactions, impacting the quality of life. Some terrorist attacks, such as

bombings, can result in displacement and homelessness for those affected, leading to housing instabili psychological stress. People may alter their daily routines, travel plans, or social activities due to fear of further attacks. This can impact personal freedom and quality of life.

Critical infrastructure is often high-value and high-impact, making it an attractive target for terrorists looking to cause disruption, economic damage, and fear. Many critical infrastructure sectors are interconnected, so an attack on one sector can have cascading effects on others. For example, an attack on the power grid can impact telecommunications and transportation. Compounding the issue, certain critical infrastructure facilities are accessible to the public or located in urban areas, making them vulnerable to physical attacks, such as bombings or shootings. Specific impacts on critical infrastructure may include:

- Disruption of Operations: Attacks can disrupt the normal operations of critical facilities, including hospitals, emergency response centers, data centers, and transportation hubs.
- Economic Disruption: Attacks can lead to significant economic disruption, including damage to facilities, loss of productivity, and increased operational costs.
- Public Safety: Attacks on certain critical infrastructure, such as transportation hubs or healthcare facilities, can pose immediate risks to public safety, leading to injuries and loss of life.
- Disruption of Services: Infrastructure attacks can result in service disruptions, including power outages, water supply interruptions, and communication breakdowns.
- Healthcare Impact: Attacks on healthcare infrastructure, like hospitals, can limit access to medical care during emergencies, potentially leading to higher casualties.

Terrorism can have significant impacts on governmental operations. These impacts can vary depending on the nature and scale of terrorist attacks, the level of preparedness and response, and the specific vulnerabilities, and may include:

- Security and Law Enforcement: An attack would lead to an increased demand on law enforcement agencies to prevent, investigate, and respond to terrorist threats and incidents. Allocation of significant resources to counterterrorism efforts would stretch resources.
- Emergency Response: Local emergency management agencies, in conjunction with state and federal agencies, would need to activate emergency response and management systems to coordinate response. A long-term activation could strain resources and personnel. Additionally, responders may be vulnerable to secondary devices or attacks.
- Public Services: An attack could lead to the disruption of public services, such as transportation, utilities, and public spaces, due to security concerns.
- Economic Impact: Negative economic consequences, including damage to businesses, loss of investor confidence, and reduced tourism and foreign investment can occur.
- Surveillance and Privacy Concerns: Expansion of surveillance capabilities may result in concerns about potential violations of privacy rights.
- Impact on Government Operations: An attack would likely cause the disruption of government functions, including closures of government offices and facilities.
- Psychological Impact on Government Officials: Psychological stress and burnout among government officials and first responders involved in counterterrorism efforts.
- Public Opinion and Confidence: Fluctuations in public opinion and confidence in the government's ability to provide security and protect citizens would occur.

For this assessment, it is not possible to calculate a specific vulnerability for each county or participating jurisdiction. However, because of the desire for publicity following attacks, it is more likely that counties and jurisdictions with greater population densities and /or larger evet venues have a greater risk.

In general, it is difficult to quantify potential losses of terrorism due to the many variables and human elements. The following hypothetical scenario, using the Electronic Mass Casualty Assessment and Planning Scenarios developed by Johns Hopkins University, provides an estimated impact of a potential terrorism event.

Scenario: Improvised Explosive Device

Event: A van transported improvised explosive device utilizing an ammonium nitrate/fuel oil mixture is detonated in the parking area of a stadium as people are entering. Potential losses with this type of scenario include both human and structural assets.

Event Assumptions: The quantity of ammonium nitrate/fuel oil mixture used is 4,000 pounds. The population density of the lot is assumed to be one person per every 25 square feet for a pre-game crowd. The lethal air blast range for such a vehicle is estimated to be 50 feet, and the falling glass hazard distance is estimated at 600 feet according to the Bureau of Alcohol, Tobacco, Firearms and Explosives Standards. In this event, damage would occur to vehicles, and depending on the proximity of other structures, damages would occur to the stadium complex itself. The exact amount of these damages is difficult to predict because of the large numbers of factors, including the type of structures nearby and the amount of insurance held by vehicle owners. It is estimated that the average replacement cost for a vehicle is $20,000 and the average repair cost for damaged vehicles would be $4,000.

Results: The following table presents the estimated human impacts of the scenario.

Table 151: Estimated Impact of Scenario #3, Improvised Explosive Device

Impact	Effect
Deaths	1,391 persons
Trauma Injuries	2,438 persons
Urgent Care Injuries	11,935
Injuries not Requiring Hospitalization	4,467
Repair Costs for 100 Vehicles	$400,000
Replacement Costs for 50 Vehicles	$1,000,000

Source: Electronic Mass Casualty Assessment and Planning Scenarios by Johns Hopkins University

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 152: Terrorism Consequence Analysis

Subject	Potential Impacts
Impact on the Public	Terrorist activities including bombings, kidnappings, shootings, and hijackings could cause considerable injury and death. An attack could kill and injure hundreds to thousands of people, which could overwhelm hospitals.
Impact on Responders	Attacks can create a dangerous environment and significant challenge for first responders, who may have to manage the evacuation of people, close areas, operate shelters, and take care of the injured. First responders may be a direct target of terrorism themselves from a secondary attack during response activities. Equipment may also be damaged or destroyed, which may lead to a decrease in response capabilities.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. A terrorist event may impact an agency's ability to maintain operations due to the potential to cause a significant injury to staff or impede travel.
Delivery of Services	The ability to deliver services can be impacted depending on the characteristics of the attack. Roadway and bridge closures may be required, as well as transit service disruptions. Businesses and places of commerce may completely shut down, which leads to the disruption of goods and services.

Table 152: Terrorism Consequence Analysis

Subject	Potential Impacts
Property, Facilities, and Infrastructure	Transportation, governmental operations, and infrastructure facilities may be disrupted both directly and indirectly. Roads and bridges may be impacted if explosive devices are utilized in the attack. Access to homes and critical facilities such as hospitals, schools, and supermarkets may be impossible. If power loss occurs following an attack, it may lead to disruption of critical infrastructure and technology.
Impact on Environment	Terrorist attacks involving bombings and arson pose considerable negative impacts to the environment in the form of smoke and destruction of vegetation. A terrorist attack utilizing chemical, nuclear, and biological weapons pose a significantly higher risk to the environment by causing pollution, damaging sewer and wastewater treatment plants; or disturbing or killing wildlife, and adversely affecting nature preserves.
Economic Conditions	Local, county, and state resources may be severely depleted during a terrorist attack response. Private businesses may not be able to maintain operations during or after an incident if they are impacted, which would impact the economy.
Public Confidence in Governance	If government employees or facilities are targeted directly by terrorism, it will have a significant impact on the ability to govern. The public's confidence in the state's governance is affected by immediate response through direct and effective actions. Efficiency in response and recovery operations is critical in keeping public confidence.

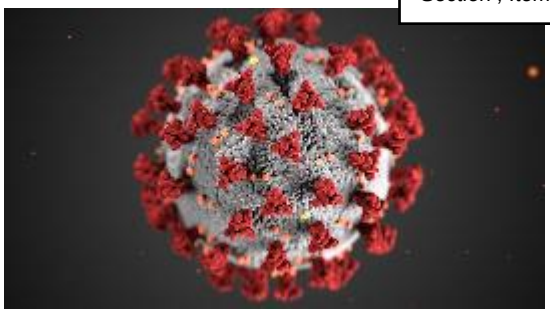
4.21.7 Hazard Planning Significance

Utilizing the above detailed formula for calculating the hazard planning significance for human caused and technological hazards, the following table details the rating of each criterion along with a composite rating:

Table 153: Terrorism Planning Significance

County	Probability	Magnitude	Warning Time	Duration	Score	Planning Significance
Butler	1	3	1	4	1.9	Low
Cowley	1	3	1	4	1,9	Low
Harper	1	3	1	4	1.9	Low
Harvey	1	3	1	4	1,9	Low
Kingman	1	3	1	4	1.9	Low
Marion	1	3	1	4	1,9	Low
McPherson	1	3	1	4	1.9	Low
Reno	1	3	1	4	1,9	Low
Rice	1	3	1	4	1.9	Low
Sedgwick	1	3	1	4	1,9	Low
Sumner	1	3	1	4	1.9	Low

4.22 Transmissible Disease



4.22.1 Hazard Description

A transmissible disease, also known as a communicable or infectious disease, is a type of illness caused by pathogens (such as bacteria, viruses, fungi, or parasites) that can be transmitted from one person or organism to another, directly or indirectly. These diseases can spread through various means, including person-to-person contact, respiratory droplets, contaminated food or water, vectors like mosquitoes, or contact with infected animals.

Transmissible diseases are characterized by their ability to pass from an infected individual to a susceptible host, leading to new cases of the disease. The transmission can occur through various routes, depending on the specific pathogen and the mode of transmission it utilizes. Examples of transmissible diseases include:

- Influenza: The flu is caused by influenza viruses and can spread through respiratory droplets when an infected person coughs or sneezes.
- West Nile virus: A mosquito-borne virus that can cause a range of illnesses in humans, from mild febrile symptoms to severe neurological disease. It is primarily transmitted to humans through the bite of infected mosquitoes.
- Malaria: Malaria is caused by Plasmodium parasites and is transmitted through the bite of infected female Anopheles mosquitoes.
- Salmonella Infection: This bacterial infection is often contracted through the consumption of contaminated food or water and can lead to gastrointestinal symptoms.
- Tuberculosis: • Tuberculosis is caused by Mycobacterium tuberculosis and can be transmitted through the inhalation of respiratory droplets from an infected person with active disease.
- Measles: Measles is caused by the measles virus and spreads through respiratory droplets, making it highly contagious.

Of particular concern are novel transmissible diseases. This is a disease that is caused by a pathogen (such as a virus, bacterium, or other microorganism) that is newly recognized in a human population or is increasing in incidence or geographic range. These diseases are termed novel because they have not been previously identified or have not been known to affect humans in the past. Several factors can contribute to the emergence of novel transmissible diseases, including changes in human behavior, urbanization, deforestation, climate change, global travel, and the encroachment of humans into natural habitats. Defining characteristics of novel transmissible diseases: include

- New Pathogen or Strain: Novel transmissible diseases often involve a pathogen or strain of a pathogen that is new to humans. This may result from genetic mutations, cross-species transmission (zoonotic diseases), or the introduction of a pathogen to a new geographic area.
- Human Transmission: These diseases have the potential to spread from person to person, either through direct contact, respiratory droplets, contaminated surfaces, or other modes of transmission.
- Challenges in Control: Because these diseases are new and may have limited prior immunity in the population, they can pose challenges for public health authorities in terms of surveillance, diagnosis, treatment, and containment.

Novel transmissible diseases can have pandemic potential, meaning they can spread globally and affect a large portion of the world's population. Dealing with novel transmissible diseases requires a multi-pronged approach, including surveillance, early detection, containment measures, public health interventions, and research to understand the pathogen and develop effective countermeasures. It also underscores the importance of preparedness and global cooperation in responding to emerging infectious diseases.

4.22.2 – Location and Extent

Kansas Region G's geographic and demographic characteristics make it vulnerable to the spread of transmissible diseases. The extent of a transmissible disease can vary widely depending on several factors, including:

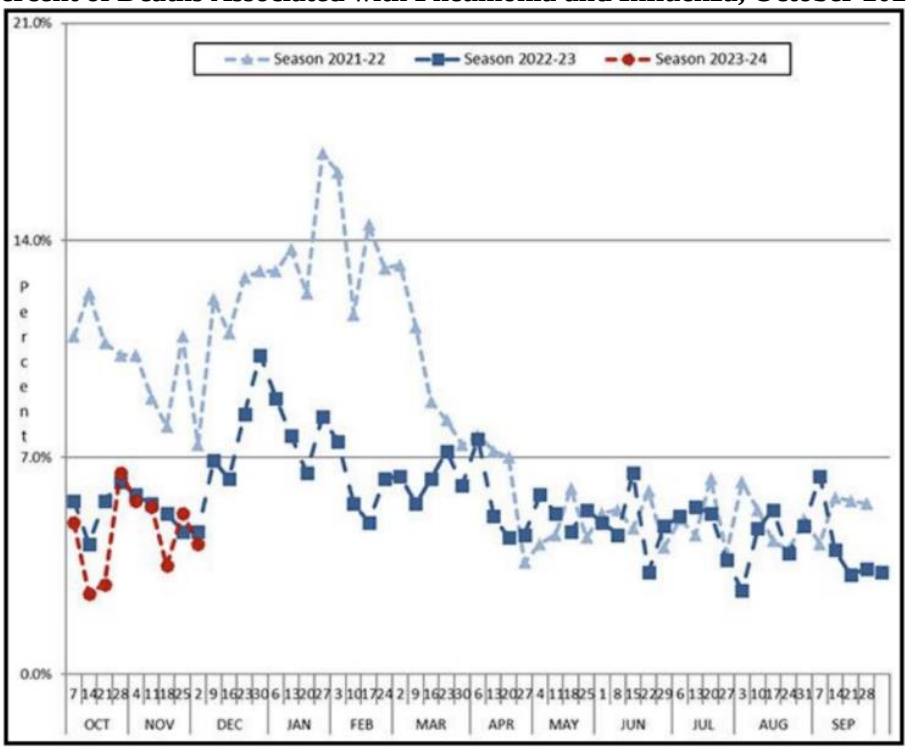
- Pathogen Characteristics: The biological properties of the infectious agent, such as its mode of transmission, incubation period, and virulence, play a significant role. Pathogens that are highly contagious and have a short incubation period are more likely to spread rapidly.
- Human Behavior: Human behavior and practices, such as hygiene, travel, and social interactions, can influence the extent of disease spread. For example, frequent travel and close interpersonal contact can facilitate the rapid transmission of infectious diseases.
- Public Health Measures: The effectiveness of public health measures, such as quarantine, isolation, contact tracing, and vaccination, can limit the extent of disease spread. Prompt and coordinated public health responses can be crucial.
- Geographic Factors: The geographic spread of a disease can be influenced by factors like population density, climate, and geographic barriers. Dense urban areas may experience more rapid transmission, while isolated or remote regions may be less affected.
- Healthcare Infrastructure: The capacity of healthcare systems to detect, treat, and isolate cases can impact the extent of an outbreak. Overwhelmed healthcare systems can lead to a larger extent of disease.
- Pre-existing Immunity: If a portion of the population has pre-existing immunity to the disease, either due to prior exposure or vaccination, this can limit the extent of disease transmission.
- Global Travel: In an era of global travel, novel infectious diseases can quickly cross international borders, affecting multiple countries and regions.
- Vaccination: The availability and coverage of vaccines against the disease can significantly reduce the extent of an outbreak. High vaccination rates create herd immunity, protecting even those who are not vaccinated.
- Mutation and Variants: Some infectious agents may undergo mutations that affect their transmissibility or virulence. New variants can lead to changes in the extent and severity of the disease.
- Public Awareness and Compliance: Public awareness of the disease, willingness to follow public health guidance, and compliance with preventive measures can affect disease transmission rates.
- Timeliness of Response: The speed with which authorities and healthcare systems respond to an outbreak can have a substantial impact. Rapid detection and containment efforts can limit the extent of spread.

The extent of a transmissible disease can range from localized outbreaks that are quickly contained to global pandemics that affect large populations across multiple countries. The management of such diseases requires a combination of robust surveillance, effective public health interventions, research, and international collaboration to minimize their impact on human health and society.

4.22.3 Previous Occurrences

One of the most common transmissible diseases within the Kanas Region G is Influenza. Influenza, commonly known as the flu, is a contagious respiratory illness caused by influenza viruses. It can affect humans, birds, and other animals. Influenza viruses are classified into types A, B, C, and D, with types A and B being the most common in humans and responsible for seasonal flu outbreaks. The following chart details deaths for the state from 2021 through 2023:

Chart 26: Percent of Deaths Associated with Pneumonia and Influenza, October 2020 to P



Source: Kansas Department of Health and Environment

The most notable recent novel infectious disease to strike Kanas Region G is COVID-19, also known as Coronavirus Disease 2019. Covid-19 is an infectious respiratory illness caused by a novel coronavirus known as SARS-CoV-2 (Severe Acute Respiratory Syndrome Coronavirus 2). It was first identified in December 2019 in the city of Wuhan, China, and spread globally leading to a pandemic. COVID-19 primarily spreads from person to person through respiratory droplets when an infected person coughs, sneezes, talks, or breathes. It can also spread by touching surfaces contaminated with the virus and then touching the face. Symptoms can range from mild to severe and may include fever, cough, shortness of breath, fatigue, muscle aches, loss of taste or smell, sore throat, congestion, and gastrointestinal symptoms like diarrhea. Some individuals may remain asymptomatic, meaning they carry the virus without displaying symptoms. While many people with COVID-19 experience mild to moderate symptoms and recover without hospitalization, the disease can be severe, especially among older adults and individuals with underlying health conditions. Severe cases can lead to pneumonia, acute respiratory distress syndrome, organ failure, and death. Available data from the Kansas Department of Health and Environment indicates the following for COVID-19 for Kansas:

- 94,656 cases
- 10,229 deaths

COVID-19 has had a profound impact on public health, economy, and daily life across Kansas Region G. Some of the key measures taken in Kansas Region G in response to the COVID-19 pandemic include:

- Public Health Measures: Kansas implemented various public health measures to slow the spread of the virus. These included stay-at-home orders, mask mandates, social distancing guidelines, and limits on gathering sizes.
- Testing and Contact Tracing: Kansas established testing sites and conducted contact tracing to identify and isolate individuals who had been exposed to the virus. Testing was widely available to the public.
- Vaccination Efforts: Kansas launched vaccination campaigns to administer COVID-19 vaccines to eligible residents. Mass vaccination sites, healthcare providers, and pharmacies played a role in the distribution of vaccines.
- School Closures and Remote Learning: Like many other states, Kansas Region G temporarily closed schools and shifted to remote learning to minimize the risk of virus transmission among students and staff.

- Travel and Quarantine Measures: Kansas issued travel advisories and quarantine requirements for those coming into the state, especially from areas with high infection rates.
- Mask Mandates and Social Distancing: Face mask mandates and social distancing measures were enforced in indoor public spaces and in situations where social distancing was not possible.

Additionally, COVID-19 had numerous, and oftentimes severe impacts on Kansas Region G, including:

- Economic Repercussion: Job losses, business closures, and economic strain on individuals and families were common within the Kansas Region G. Kansas, like other states, implemented economic relief measures.
- Healthcare System Overload: Hospitals and healthcare facilities in Kansas Region G worked to increase capacity to treat COVID-19 patients. There were efforts to secure additional medical supplies and equipment.
- Protection of Vulnerable Populations: Efforts were made to protect vulnerable populations, including the elderly and those with underlying health conditions, who were at higher risk of severe illness from COVID-19.
- Educational Impact: The pandemic disrupted education, with students and teachers adapting to remote learning. Schools implemented safety measures upon reopening.

The response to COVID-19 evolved as more information became available, and measures were adjusted based on the changing circumstances of the pandemic. Kansas Region G worked to balance public health concerns with the economic and social well-being of its residents. The state and region's response were guided by recommendations from health experts from the Centers for Disease Control.

4.22.4 Probability of Future Events

While it is impossible to predict with certainty when or if a transmissible disease outbreak will occur, the probability of occurrence can be estimated based on historical patterns and current global conditions. Factors to consider include:

- Globalization: Increased global travel and trade can facilitate the rapid spread of infectious diseases. The interconnectedness of the world means that a disease can quickly cross borders, increasing the risk of a pandemic.
- Vaccine Coverage: The level of vaccination coverage against preventable diseases can impact the likelihood of pandemics. Low vaccine coverage can lead to outbreaks that have pandemic potential.
- Public Health Preparedness: The readiness of healthcare systems, public health agencies, and governments to respond to outbreaks is crucial. Adequate preparedness can help contain outbreaks before they become pandemics.
- Surveillance and Early Detection: Improved surveillance systems and early detection mechanisms can help identify and contain outbreaks before they escalate to pandemics.
- Scientific Advancements: Advances in science and technology, such as the rapid development of vaccines and treatments, can influence our ability to respond to emerging infectious diseases.
- Behavioral Factors: Human behavior, including adherence to preventive measures like handwashing, mask-wearing, and vaccination, plays a role in disease transmission. Public health campaigns can influence behavior.
- Climate Change: Environmental changes driven by climate change can alter the geographic distribution of diseases and the behavior of vectors (like mosquitoes). This can affect disease transmission patterns and increase the risk of outbreaks.
- Agriculture and Farming Practices: The way animals are raised and farmed can impact the risk of zoonotic diseases, which are diseases transmitted from animals to humans. The probability of another pandemic is influenced by the frequency of spillover events (when a pathogen jumps from animals to humans). Factors like deforestation, urbanization, and increased contact with wildlife can contribute to these events.

Transmissible disease outbreaks can vary in their impact, and public health measures can mitigate their effects. Governments, international organizations, and scientists continuously monitor and assess the risk of transmissible diseases and work to improve preparedness and response capabilities.

In order to prevent the rapid spreads of transmissible diseases, the Kansas Department of Health and Envi
occurrences of the following diseases and conditions:

- Acute flaccid myelitis
- Anthrax
- Anaplasmosis
- Arboviral disease, neuroinvasive and nonneuroinvasive (including chikungunya virus, dengue virus, La Crosse, West Nile virus, and Zika virus)
- Babesiosis
- Botulism
- Brucellosis
- Campylobacteriosis
- Candida auris
- Carbapenem-resistant bacterial infection or colonization
- Chancroid
- Chickenpox (varicella)
- Chlamydia trachomatis infection
- Cholera
- Coccidioidomycosis
- Cryptosporidiosis
- Cyclosporiasis
- Diphtheria
- Ehrlichiosis
- Giardiasis
- Gonorrhea (include antibiotic susceptibility results, if performed)
- Haemophilus influenzae, invasive disease
- Hansen’s disease (leprosy)
- Hantavirus
- Hemolytic uremic syndrome, post-diarrheal
- Hepatitis, viral (A, B, C, D, and E, acute and chronic)
- Histoplasmosis
- Human Immunodeficiency Virus (HIV) (
- Leptospirosis
- Influenza, novel A virus infection
- Legionellosis
- Listeriosis
- Lyme disease
- Malaria
- Measles (rubeola)
- Meningococcal disease
- Mumps
- Pertussis (whooping cough)
- Plague (Yersinia pestis)
- Poliovirus
- Psittacosis
- Q Fever (Coxiella burnetii, acute and chronic)
- Rabies
- Rubella

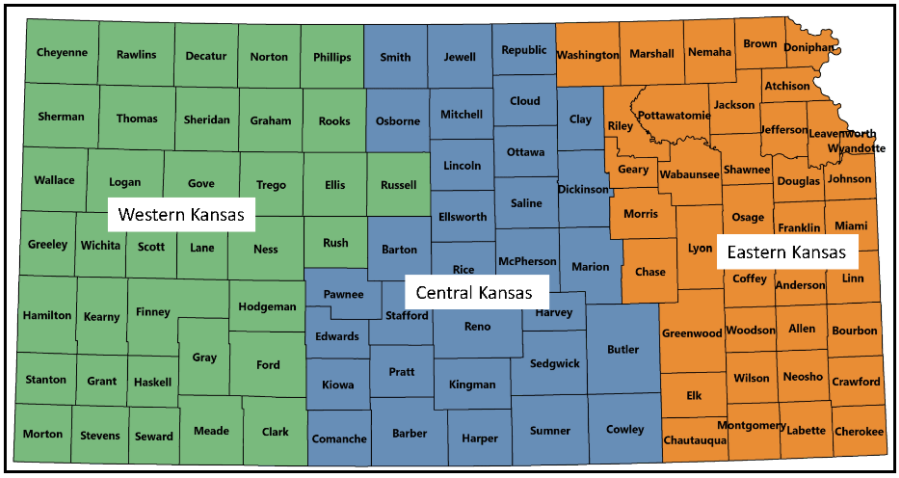
- Salmonellosis, including typhoid fever
- Severe Acute Respiratory Syndrome-associated coronavirus (SARS-CoV)
- Shiga toxin-producing Escherichia coli
- Shigellosis
- Smallpox
- Spotted fever rickettsiosis
- Streptococcus pneumoniae, invasive disease
- Syphilis, all stages, including congenital syphilis
- Tetanus
- Toxic shock syndrome, streptococcal and other
- Transmissible spongioform encephalopathy or prion disease
- Trichinellosis or trichinosis
- Tuberculosis
- Tularemia, including laboratory exposures
- Vancomycin-intermediate and resistant Staphylococcus aureus
- Vibriosis (all cholerae and non-cholerae Vibrio species)
- Viral hemorrhagic fevers
- Yellow fever

Kansas Region G Health Departments report all nationally notifiable conditions to the Centers for Disease Control using the National Electronic Disease Surveillance System to allow for rapid and appropriate response.

The Kansas Department of Health and Environment Field Epidemiology Services Program provides trained field epidemiologists to support epidemiological activities of local health departments. Field epidemiologists are the boots on the ground regionally for the state health department and serve as a liaison between the local health departments and the Kansas Department of Health and Environment. The four primary areas of support include:

- Investigation of complex or unusual infectious disease cases and large or complicated outbreaks
- Reporting and surveillance for reportable diseases
- Data analysis and reporting
- Public health training and education

Map 129: Kansas Department of Health and Environment Field Epidemiology Services Program Regions



Source: Kansas Department of Health and Environment

4.22.5 Projected Changes in Location, Intensity, Frequency, and Duration

A continued increase in international travel, both to and from Kansas, may increase the spread of infectious disease. The movement of people across diverse geographical regions brings together individuals with different immunological profiles. This mingling creates opportunities for the emergence of novel pathogens or the introduction of diseases into populations with limited immunity.

Climate change can have several impacts on the emergence and spread of transmissible diseases. While the relationship between climate change and transmissible diseases is complex, there are several ways in which climate change can influence disease dynamics including:

- Altered Disease Transmission Patterns in Vector-Borne Diseases: Climate change can affect the distribution and behavior of disease vectors (mosquitoes and ticks) by influencing temperature and precipitation patterns. This can lead to the expansion of diseases like malaria, dengue fever, and Lyme disease into new geographic areas.
- Extended Transmission Seasons: Rising temperatures can lengthen the transmission seasons for certain diseases, allowing them to be active for a more extended period each year.
- Changes in Pathogen Survival: Some pathogens can survive longer in warmer and wetter conditions. This can affect the persistence of infectious agents in the environment.
- Increased Risk of Zoonotic Diseases: Climate change can disrupt ecosystems and alter the habitats and migration patterns of wildlife. This can lead to increased interactions between humans, domestic animals, and wildlife, potentially facilitating the transmission of zoonotic diseases (diseases that originate in animals) to humans.
- Weakened Immune Response: Climate-related stressors, such as extreme heat events, can weaken the immune systems of vulnerable populations, making them more susceptible to infectious diseases.

To mitigate the impacts of climate change, public health measures, adaptation strategies, and international cooperation are essential, and may include:

- Strengthening disease surveillance systems to monitor changing disease patterns.
- Implementing vector control measures in areas at risk of vector-borne diseases.
- Enhancing healthcare infrastructure resilience to climate-related disasters.
- Promoting climate-resilient agricultural practices to ensure food security.
- Supporting research on the links between climate change and infectious diseases.
- Raising awareness and educating communities about the risks and preventive measures.

4.22.6 Vulnerability and Impact

People can be vulnerable to transmissible diseases due to various factors that influence their susceptibility to infection and the potential severity of illness. These vulnerabilities can be influenced by individual, societal, and environmental factors, and may include:

- Lack of Immunity: Many transmissible diseases are ones that people have little to no immunity to.
- Vaccination Status: Vaccination can provide immunity against certain diseases. People who are not vaccinated or have not received booster shots may be more vulnerable.
- Age: Infants, young children, and the elderly often have weaker immune systems, making them more susceptible to infections and complications.
- Underlying Health Conditions: Individuals with underlying health conditions, such as immunodeficiency disorders, chronic diseases, or respiratory conditions, may be more vulnerable to severe illness.
- Medication and Treatment Availability: The availability of medications or treatments specific to the disease can impact vulnerability. Rapid access to appropriate treatments can be life-saving.
- Population Density: Highly populated areas can facilitate the rapid spread of diseases, making people in densely populated regions more vulnerable.

- Sanitation and Hygiene: Poor sanitation and hygiene practices can increase the risk of disease. Access to clean water and sanitation facilities is crucial for reducing vulnerability.
- Access to Healthcare: The availability and accessibility of healthcare services, including diagnostic testing and medical treatment, can significantly impact the outcome of a novel transmissible disease.
- Public Awareness: People who are unaware of the risks associated with a novel transmissible disease or who do not know how to protect themselves may be more vulnerable.
- Behavioral Factors: People's behavior, such as adherence to public health guidelines (e.g., handwashing, wearing masks), can influence vulnerability.
- Fear and Panic: Fear and panic can hinder effective responses, potentially increasing vulnerability.
- Access to Information: Timely and accurate information can empower individuals to take protective measures. Lack of information or misinformation can increase vulnerability.

The spread of a transmissible disease can have severe and far-reaching impacts on human health and society, , and can include:

- Illness and Death: The most immediate impact is the potential for widespread illness and death. Depending on the disease, the severity of illness can range from mild to life-threatening.
- Healthcare Overload: A rapidly spreading disease can quickly overwhelm healthcare systems, leading to shortages of medical supplies, hospital beds, and healthcare personnel. The ability to provide timely medical care may be compromised.
- Social Disruption: Social disruption can occur due to isolation and quarantine measures, as well as the need for social distancing. Schools, businesses, and public gatherings may be canceled or limited, affecting daily life and routines.
- Psychological Trauma: Survivors of a transmissible disease may experience long-lasting psychological trauma due to the fear of infection, the loss of loved ones, and the overall trauma of the event.
- Long-Term Health Effects: Some diseases can cause long-term health effects in survivors, including chronic illnesses and disabilities.

It is important to note that public health agencies and emergency responders work to minimize vulnerabilities by implementing preventive measures, conducting public awareness campaigns, and having response plans in place. Preparedness efforts, including vaccination programs, stockpiling of medical supplies, and coordination among healthcare providers, are critical for reducing vulnerabilities.

The direct risk or vulnerability to property and critical facilities from a transmissible disease is generally limited. While unlikely, transmissible diseases could possibly be moved through a facility’s ventilation system. An incident like this would not pose a direct risk to the structure’s integrity; however, considerable contamination of the facility may occur, requiring decontamination and potential loss of access to the building for a considerable length of time. Critical facilities and infrastructure generally will not suffer direct impacts from a novel transmissible disease event. Employee absenteeism could indirectly impact the ability for a critical facility to operate. Without necessary operators, critical infrastructure may be susceptible to indirect failure.

Zoonotic diseases are infections that can be transmitted between animals and humans. These diseases can have significant impacts on both human and animal populations, as well as broader environmental consequences. Some diseases have caused significant declines and extinctions in affected species and can infect domesticated animals, leading to economic losses in the agricultural sector. Diseases like avian influenza and foot-and-mouth disease can result in culling of livestock to prevent disease spread. Zoonotic diseases can also influence the health and dynamics of ecosystems. Changes in wildlife populations due to disease can have cascading effects on biodiversity and ecosystem function.

The rapid spread of a transmissible disease can have wide-ranging impacts on governmental operations, affecting functions and public safety. These impacts can disrupt government operations, strain resources, and pose challenges to maintaining public order, and can include:

- Emergency Response and Healthcare: Kansas Region G would need to rapidly mobilize emerg teams, medical personnel, and healthcare facilities. The surge in demand for medical resources can strain healthcare systems, including hospitals, clinics, and emergency services.
- Public Health Services: County health departments would play a critical role in disease surveillance, contact tracing, and public health messaging. A transmissible disease could require additional personnel and resources to manage the outbreak.
- Resource Allocation: County health departments may need to help allocate resources for medical supplies, pharmaceuticals, personal protective equipment, and vaccine distribution. Competition for limited resources can lead to shortages and increased costs.
- Transportation and Supply Chain Disruption: Quarantine measures, travel restrictions, and supply chain disruptions can affect the movement of essential goods and services, including medical supplies, food, and fuel.
- Economic Impact: The economic consequences of a transmissible disease can be severe. Business closures, reduced consumer confidence, and trade disruptions can lead to financial losses, unemployment, and economic instability.
- Education Disruption: School closures and disruptions to education can affect students' learning and parental work arrangements, leading to social and economic consequences.
- Public Services: Essential public services, such as law enforcement, fire services, and sanitation, may be stretched thin due to the demands of responding to the outbreak.
- Social Distancing and Isolation Measures: Government directives for social distancing, isolation, and quarantine can impact daily life, social interactions, and public gatherings. The enforcement of such measures can be challenging.
- Psychological and Societal Impact: Fear and anxiety can spread rapidly during disease transmission, affecting public morale and mental health. Disinformation and rumors can compound these psychological impacts.

Consequence Analysis

This consequence analysis lists the potential impacts of this hazard on various elements of community and state infrastructure. The impact of this hazard is evaluated in terms of disruption of operations, recovery challenges, and overall wellbeing to all Kansas Region G residents and first responder personnel. The consequence analysis supplements the hazard profile by analyzing specific impacts.

Table 154: Transmissible Disease Consequence Analysis

Subject	Potential Impacts
Impact on the Public	Depending on the scale of outbreak and type of disease, residents may be at risk of illness or death. Population density may play a role in the spread of disease, with urban areas being more likely to be impacted than rural areas. Specific impacts to residents will be dependent upon the type of disease and how it is transmitted.
Impact on Responders	Epidemics pose a unique risk to first responders because they are more likely to be exposed to a transmissible disease before it has been identified. If the novel transmissible disease infects first responders and healthcare practitioners, the provision of public safety and public health services may be significantly impacted.
Continuity of Operations	Local jurisdictions maintain continuity plans which can be enacted as necessary based on the situation. A transmissible disease may impact an agency’s ability to maintain continuity of operations based on the potential to create high levels employee absenteeism. Employee absenteeism could also hinder the ability to fulfill critical operations as well as implementation and maintenance of the plan itself.
Delivery of Services	Epidemics may cause disruption of services in the event of employee absenteeism.
Property, Facilities, and Infrastructure	It is unlikely that an epidemic would have direct effects on critical infrastructure or other facilities or structures. However, under cases of absenteeism, it is possible that regular maintenance or repairs would not be performed, resulting in disrepair.
Impact on Environment	In some cases, disease outbreak is caused by infections spread from animals to humans. Under these circumstances, infections may be spread as the result of normal care (proximity) to sick animals or consumption of byproducts of infected animals.

Table 154: Transmissible Disease Consequence Analysis

Subject	Potential Impacts
	Infected animals may die as a result of the disease. Timely removal of infected animal carcasses may help to reduce the spread of the disease among animals.
Economic Conditions	Depending on the scale of outbreak and type of disease, a localized infectious disease outbreak could impact Kansas Region G significantly. In the event residents and workers became infected from an epidemic, employee absenteeism would increase and the length of time necessary to recover could be significant.
Public Confidence in Governance	Governmental response requires direct actions that must be immediate and effective to maintain public confidence. If government functionality is reduced by absenteeism, the public's confidence in governance may be reduced. The ability to perform critical functions will directly impact the community's perception of government. Maintenance of these operations will be critical to response and recovery operations.

4.22.7 Hazard Planning Significance

Utilizing the above detailed formula for calculating the hazard planning significance for human caused and technological hazards, the following table details the rating of each criterion along with a composite rating:

Table 155: Transmissible Disease Planning Significance

County	Probability	Magnitude	Warning Time	Duration	Score	Planning Significance
Butler	3	3	1	4	2.8	Moderate
Cowley	3	3	1	4	2.8	Moderate
Harper	3	3	1	4	2.8	Moderate
Harvey	3	3	1	4	2.8	Moderate
Kingman	3	3	1	4	2.8	Moderate
Marion	3	3	1	4	2.8	Moderate
McPherson	3	3	1	4	2.8	Moderate
Reno	3	3	1	4	2.8	Moderate
Rice	3	3	1	4	2.8	Moderate
Sedgwick	4	3	2	4	3.4	High
Sumner	3	3	1	4	2.8	Moderate

Section 5 –Capability Assessment

5.1 Introduction

This capability overview for Kansas Region G documents programs, policies, and funding mechanisms for participating jurisdictions. All listed capabilities documented in the previous HMP were reviewed for relevance and updated to reflect the current environment, as necessary. Additionally, any programs, policies, or funding mechanisms that are no longer applicable, are outdated, or are no longer in existence have been removed. As part of this process, updated jurisdictional capability profiles were sent for review and, if necessary, further revision.

This section of the plan discusses the current capacity of regional communities to mitigate the effects of identified hazards. A capability assessment is conducted to determine the ability of a jurisdiction to execute a comprehensive mitigation strategy, and to identify potential opportunities for establishing or enhancing specific mitigation policies, programs or projects.

A capability assessment helps to determine which mitigation actions are practical based on a jurisdiction's fiscal, staffing and political resources, and consists of:

- An inventory of relevant plans, ordinances, or programs already in place
- An analysis capacity to carry them out.

A thoughtful review of jurisdictional capabilities will assist in determining gaps that could limit current or proposed mitigation activities, or potentially aggravate a jurisdiction's vulnerability to an identified hazard. Additionally, a capability assessment can detail current successful mitigation actions that should continue to receive support.

Currently, all Kansas Region G counties have an emergency management program that has the primary responsibility for directing the hazard mitigation planning process. However, the capability of each emergency management program varies based largely on the size and financial capabilities of the jurisdiction. While all counties, and some participating jurisdictions, have the capability needed to conduct mitigation planning, many rely on the technical expertise of KDEM to apply for mitigation grant funding and oversee mitigation projects. Additionally, further augmenting local emergency management capabilities, KDEM aids with state and federal mitigation and emergency management initiatives and available funding opportunities.

Technical capabilities for each county and participating jurisdiction vary widely and are generally based on financial capabilities. In general, more urban, or larger jurisdictions have a greater range of technical capabilities and staffing related to planning, engineering, and mapping, while smaller counties and jurisdictions lack these capabilities. It should be noted that KDEM offers a variety of programs to provide local jurisdictions with technical expertise, including mapping and planning.

The following table details local departments and positions and their roles in supporting hazard mitigation planning:

Table 156: Local Jurisdiction Department and Positions Supporting Mitigation Planning

Department or Position	Description	Role in Mitigation
Building Officials	Implements and enforces building codes and zoning ordinances.	Ensures construction standards are consistently applied.
Emergency Management Director	Directs local response, recovery, and mitigation programs.	Develops Local Emergency Operations Plan, Continuity Plans, and Hazard Mitigation Plans, helping to minimize loss of life and property damage.
NFIP/CRS Coordinators	Oversees compliance with the NFIP and CRS and addresses flood determinations, mapping issues, and construction standards within Special Flood Hazard Areas.	Reviews floodplain/building permits for structures within floodplains and inspects developments to determine compliance with the community development standards and

Table 156: Local Jurisdiction Department and Positions Supporting Mitigation Planni

Department or Position	Description	Role in Mitigation
		NFIP requirements. Explains floodplain development requirements to community leaders, citizens, and the general public.
Planning Boards	Recommends land use regulations	Coordinates with the NFIP Coordinator and the Hazard Mitigation Committee through the mitigation planning process and the implementation of the plans.
Public Works Departments	Responsible for municipal drainage and storm water management systems.	Provides for the ongoing maintenance and upgrading of local storm water systems to help reduce flood risks.
Town/Township/City Council	Approves subdivision, zoning and land ordinances and bylaws and facilitates capital improvements budget and plan.	Provide leadership and approval for local hazard mitigation plans, projects, grants, and programs.

5.2 Granted Authority

In implementing a mitigation plan or specific action, a local jurisdiction may utilize any or all of the four broad types of government authority granted by the State of Kansas. The four types of authority are defined as:

- Regulation
- Acquisition
- Taxation
- Spending

The scope of regulation is subject to constraints, however, as all of Kansas' political subdivisions must not act without proper delegation from the State. Under a principle known as "Dillon's Rule," all power is vested in the State and can only be exercised by local governments to the extent it is delegated.

The power of acquisition can be a useful tool for pursuing local mitigation goals. Local governments may find the most effective method for completely "hazard-proofing" a particular piece of property or area is to acquire the property, thus removing the property from the private market and eliminating or reducing the possibility of inappropriate development occurring. Kansas legislation empowers cities, towns, counties to acquire property for public purpose by gift, grant, devise, bequest, exchange, purchase, lease or eminent domain (County Home Rule Powers, K.S.A. 19-101, 19-101a, 19-212).

The power to levy taxes and special assessments is an important tool delegated to local governments by Kansas law. The power of taxation extends beyond merely the collection of revenue and can have a profound impact on the pattern of development in the community. Communities have the power to set preferential tax rates for areas which are more suitable for development in order to discourage development in otherwise hazardous areas. Local units of government also have the authority to levy special assessments on property owners for all or part of the costs of acquiring, constructing, reconstructing, extending or otherwise building or improving flood control within a designated area. This can serve to increase the cost of building in such areas, thereby discouraging development. Because the usual methods of apportionment seem mechanical and arbitrary, and because the tax burden on a particular piece of property is often quite large, the major constraint in using special assessments is political. Special assessments seem to offer little in terms of control over land use in developing areas. They can, however, be used to finance the provision of necessary services within municipal or county boundaries. In addition, they are useful in distributing to the new property owners the costs of the infrastructure required by new development.

The Kansas General Assembly allocated the ability to local governments to make expenditures in the public interest. Hazard mitigation principles can be made a routine part of all spending decisions made by the local government, including the adoption of annual budgets and a Capital Improvement Plan. A Capital Improvement Plan is a schedule for the provision of municipal or county services over a specified period of time. Capital programming, by itself, can

be used as a growth management technique, with a view to hazard mitigation. By tentatively commit timetable for the provision of capital to extend services, a community can control growth to some extent. In addition to formulating a timetable for the provision of services, a local community can regulate the extension of and access to services. A Capital Improvement Plan that is coordinated with extension and access policies can provide a significant degree of control over the location and timing of growth. These tools can also influence the cost of growth. If the Capital Improvement Plan is effective in directing growth away from environmentally sensitive or high hazard areas.

5.3 Regulation of Development

The regulation of development plays a crucial role in helping a community become more resilient in the face of various hazards. Effective regulation of development contributes to community resilience through:

- Risk Reduction: Regulations guide land use and construction practices, ensuring that they provide strong protection against hazards.
- Public Safety: Building codes and land-use regulations establish minimum safety standards for construction, including structural integrity, fire resistance, and the use of resilient materials.
- Infrastructure Resilience: Regulations may require infrastructure improvements, such as the construction of resilient roads, bridges, utility systems, and drainage systems. This strengthens a community's ability to withstand hazards, ensures the continued operation of critical services, and aids in recovery.
- Floodplain Management: Regulations in flood-prone areas can mandate elevation requirements for new construction, ensuring that structures are built above the base flood elevation. This minimizes flood damage, reduces the need for costly post-disaster repairs, and protects property values.
- Land Use Planning: Effective land-use planning helps communities avoid inappropriate development in areas at high risk of hazards.
- Community Awareness: Public education and outreach can be incorporated into regulations, requiring communities to inform residents about local hazards, evacuation routes, and preparedness. Informed residents are more likely to take protective measures and respond effectively to disasters.

The following sections provide further detail on building codes, zoning ordinances, and floodplain management.

Building Codes

In Kansas, the authority for enacting and enforcing building codes lies with local governments, such as cities and counties. Each jurisdiction can adopt its own building codes, which can be based on national or international building codes like the International Building Code or the International Residential Code.

Building codes play a critical role in enhancing the resilience of buildings and communities to various hazards. In Kansas Region G, locally instituted and enforced building codes provide for:

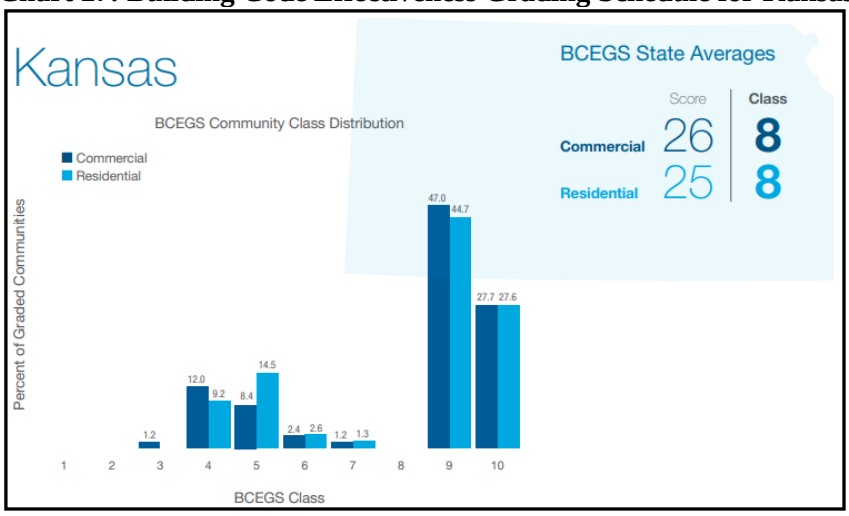
- Structural Integrity: Building codes set standards for the structural design and construction of buildings. These standards ensure that structures are built to withstand the forces and stresses imposed by hazards such as earthquakes, tornadoes, and high winds. Reinforced foundations, bracing systems, and other structural components are designed to resist damage and prevent catastrophic failures during disasters.
- Life Safety: Building codes include provisions for fire safety, emergency egress, and the use of fire-resistant materials.
- Resistant Materials: Building codes often specify the use of hazard-resistant materials.
- Foundations and Elevation: Codes in flood-prone areas may require buildings to be elevated above the base flood elevation to reduce the risk of inundation and damage. Properly designed foundations can resist soil movement and mitigate flood damage.
- Seismic Retrofitting: In earthquake-prone regions, building codes mandate seismic retrofitting measures, such as bracing, shear walls, and base isolation systems, to minimize structural damage during seismic events.
- Wind Load Considerations: Building codes in areas susceptible to high winds stipulate requirements for wind load resistance. This includes factors like roof designs, fastening systems, and reinforced structural elements to withstand strong winds.

- Accessibility and Life Support: Building codes incorporate accessibility standards, ensuring tha designed to accommodate all individuals. This is crucial during and after disasters when people with mobility issues may require assistance. Accessible features also benefit emergency responders and support recovery efforts.
- Retrofitting Existing Buildings: Building codes may require the retrofitting of older structures to meet modern safety standards.
- Public Awareness: Building codes promote public awareness of hazards and the importance of resilient construction. This can lead to informed decision-making by property owners, builders, and developers, resulting in safer structures.

As building codes vary by jurisdiction, it is essential to contact the local building department for the most accurate information concerning application and enforcement.

The Building Code Effectiveness Grading Schedule assesses the building codes in effect in a particular community and how the community enforces its building codes, with special emphasis on mitigation of losses from natural hazards. The program assigns each participating municipality a Building Code Effectiveness Grading Schedule grade of 1 (exemplary commitment to building code enforcement) to 10 (lowest possible score). The following graph illustrates the rating for each rated State of Kansas participating municipalities.

Chart 27: Building Code Effectiveness Grading Schedule for Kansas



Source: Building Code Effectiveness Grading Schedule

The average score for the State of Kansas was 26 (or a Class 8) rating for commercial, and a 25 (Class 8) for residential.

As part of this planning effort, county personnel charged with regulating or overseeing development were given the opportunity to review and comment of the elements of this plan. Please note that not all counties have building or zoning departments. The following personnel involved in regulating development were identified:

Table 157: County Building or Development Stakeholders

Jurisdiction	Title	Name
Butler County	Director of Community Development	Lucas Herb-Mullin
Harper County	Zoning Administrator	Jackie Keim
Harvey County	Planning, Zoning, And Environment Director	Karen Rothe
Kingman County	Planning/Zoning Coordinator	Stan Goetz
Marion County	Planning and Zoning Director	Sharon Omstead
McPherson County	Building Inspector	Ryan Rank
Reno County	Environmental Health Supervisor	Mark Vonachen
Rice County	Planning and Zoning Director	David Larsen
Sedgwick County	Metropolitan Area Building and Construction Department Director	Chirs Labrum

Table 157: County Building or Development Stakeholders

Jurisdiction	Title	Name
Sumner County	Planning and Zoning Director	Jon Bristor

Zoning Ordinances

Zoning ordinances in Kansas Region G govern land use, development, and building requirements. These ordinances work by dividing the land into different zoning districts and establishing rules and guidelines for land use, building placement, density, and setback within the zoning districts. In general, zoning ordinances establish:

- **Zoning districts:** Areas designated for specific types of land uses, such as residential, commercial, industrial, agricultural, mixed-use, or special districts.
- **Land usage within a zoning district:** Specifications as to which activities, buildings, and operations are permitted in each zoning district.
- **Enforcement:** Zoning ordinances are enforced by the local building department or zoning enforcement officers.

Zoning is the traditional, and most common, tool available to local jurisdictions to control the use of land. Zoning is used to promote health, safety, and the general welfare of the community. Zoning is used to dictate the type of land use and to set minimum specifications for use such as lot size, building height and setbacks, and density of population.

Legal authority for Kansas Region G local governments to adopt and implement zoning regulations is found at K.S.A. 12-741, which provides for the enactment of planning and zoning laws and regulations by cities and counties. The components of local zoning ordinances are detailed at K.S.A. 12-753(a). and include the provision for the adoption or amendment of zoning regulations and the provision for restricting and regulating the height, number of stories and size of buildings

Zoning ordinances play a significant role in enhancing hazard resilience for communities and can help reduce vulnerability to various natural and man-made hazards by regulating land use and development practices. In Kansas Region G, locally instituted and enforced zoning ordinances provide for:

- Land Use Planning: Zoning ordinances designate land use zones within a community, ensuring that certain areas are reserved for particular uses. This can prevent the construction of critical infrastructure, homes, or businesses in high-risk zones, such as floodplains or wildfire-prone areas.
- Setback Requirements: Zoning ordinances often mandate specific setbacks, which are distances between structures and property lines or natural features. These setbacks can help prevent buildings from being too close to potential hazards, potentially reducing the risk of damage.
- Building Height and Design Standards: Zoning codes can establish building height limits to reduce exposure to certain hazards. Design standards, including materials and construction methods, can be specified to make structures more resilient.
- Floodplain Management: Many zoning ordinances incorporate floodplain regulations, which dictate where and how buildings can be constructed within flood-prone areas. These regulations may require buildings to be elevated, use flood-resistant materials, or include openings to allow floodwaters to pass through.
- Wildfire Mitigation Zones: In regions susceptible to wildfires, zoning ordinances can establish wildfire mitigation zones with specific requirements for defensible space, fire-resistant landscaping, and building materials to reduce the risk of wildfires spreading to structures.

In addition to zoning ordinances, historic preservation is an important consideration for all jurisdictions within Kansas Region G. Historic preservation is enacted under K.S.A. 12-755(a)(3), and provides local governments the authority they need to adopt zoning regulations to preserve structures listed on local, state, or national historic registers.

Properly applied, zoning restriction and historic preservation are some of the most effective hazard mitigation tools available against a wide variety of hazards.

Floodplain Management Standards

Floodplain ordinances and management are one of the most effective hazard mitigation tools available against flooding. Local floodplain ordinances, required for NFIP participants, are often used to prevent inappropriate development in floodplains and to reduce flood hazards. In general, they allow the jurisdiction to:

- Minimize the extent of floods by preventing obstructions that inhibit water flow and increase flood height and damage.
- Prevent and minimize loss of life, injuries, and property damage in flood hazard areas.
- Promote the public health, safety and welfare of citizens in flood hazard areas.
- Manage planned growth.
- Grant permits for use in development within special flood hazard areas that are consistent with the community ordinance and the NFIP under 44 CFR 60.3.

The NFIP floodplain management regulations work alongside local building codes by providing specific flood-related requirements that must be met in addition to general building code standards. In NFIP communities, when constructing or substantially improving a structure in a Special Flood Hazard Area (SFHA), the structure must be elevated to or above the Base Flood Elevation (BFE), which is a requirement imposed by the NFIP's regulations.

The following table details the status of these codes and ordinances for participating jurisdictions, with the absence of an x indicating that the jurisdiction does not currently have that specific code or ordinance:

Table 158: Jurisdictional Codes and Ordinances

Jurisdiction	Building Code	Floodplain Ordinance	Zoning Ordinance
Butler County	x	x	x
Andover	x	x	x
Augusta	x	x	x
Benton	x	x	x
Cassoday		x	
Douglass	x	x	x
El Dorado	x	x	x
Elbing		x	
Latham		x	
Leon		x	
Potwin	x	x	x
Rose Hill	x	x	x
Towanda	x	x	x
Whitewater	x	x	x
Cowley County			x
Arkansas City	x	x	x
Atlanta			
Burden	x	x	
Dexter		x	
Geuda Springs		x	
Parkerfield		x	
Udall	x	x	x
Winfield	x	x	x
Harper County		x	x
Anthony		x	
Attica		x	
Bluff City			
Danville	x		x
Harper	x	x	x
Harvey County	x	x	x
Burrton	x	x	x

Table 158: Jurisdictional Codes and Ordinances

Jurisdiction	Building Code	Floodplain Ordinance	Zoning Ordinance
Halstead	x	x	x
Hesston	x	x	
Newton	x	x	x
North Newton	x	x	x
Sedgwick	x		x
Walton	x	x	x
Kingman County		x	
Marion County	x	x	x
Burns			
Florence			
Goessel			
Hillsboro		x	
Lehigh		x	
Lincolnville			
Lost Springs			
Marion	x	x	
Peabody		x	
Ramona		x	
Tampa		x	
McPherson County	x	x	x
Canton			
Galva		x	
Inman		x	
Lindsborg		x	
Marquette		x	
McPherson	x	x	x
Moundridge	x	x	x
Windom			
Reno County			
Buhler		x	
Haven	x	x	x
The Highlands			x
Hutchinson	x	x	x
Nickerson	x	x	x
Partridge		x	
South Hutchinson	x	x	
Turon	x	x	
Willowbrook		x	x
Rice County		x	x
Chase		x	
Little River		x	
Lyons	x	x	x
Sterling		x	
Sedgwick County	x	x	x
Andale		x	
Bel Aire	x	x	x
Bentley		x	
Cheney	x	x	x
Clearwater		x	
Colwich		x	
Derby	x	x	x
Eastborough		x	
Garden Plain	x	x	x

Table 158: Jurisdictional Codes and Ordinances

Jurisdiction	Building Code	Floodplain Ordinance	Zoning Ordinance
Goddard		x	
Haysville	x	x	x
Maize	x	x	x
Mount Hope		x	
Mulvane			
Park City	x	x	x
Valley Center	x	x	x
Wichita	x	x	x
Sumner County		x	
Argonia		x	
Belle Plaine	x	x	x
Geuda Springs		x	
Oxford		x	
Wellington		x	

Note: No X (or blank) indicates jurisdiction does not have code or ordinance

Regulation of High Hazard Dams

The KDA Division of Water Resources (KDA-DWR) is responsible for the review and approval of plans for constructing new dams and for modifying existing dams, ensuring quality control during construction, and monitoring dams that, if they failed, could cause loss of life, or interrupt public utilities or services. The KDA-DWR regulates the construction, operation, and maintenance of all dams or other water obstructions, with the exception of federal reservoirs. The Obstructions in Streams Act (K.S.A 82a-303b) requires owners of high hazard (class C) and significant hazard dams (class B) dams to have a qualified engineer conduct periodic dam inspections. For high hazard dams, the inspection must be done every three years. For significant hazard dams, an inspection must be done every five years.

5.4 Jurisdictional Compliance with NFIP

All NFIP participating jurisdictions are required to meet the minimum standards set forth in the program. The jurisdictions' NFIP coordinator ensures all new construction projects are properly surveyed and receive an elevation certificate.

NFIP participants are committed to continued involvement and compliance. To help facilitate compliance, NFIP participating jurisdictions:

- Adopted floodplain regulations through local ordinance
- Enforces floodplain ordinances through building restrictions
- Regulates new construction in Special Flood Hazard Areas as outlined in their floodplain ordinance
- Utilizes FEMA DFIRMs, where available
- Monitors floodplain activities

Please see section 4.12.8, National Flood Insurance Program and Community Rating System Communities, Table 94: Kanas Region G NFIP Communities for current effective map dates for each participating community.

As part of this planning effort, jurisdictional NFIP Coordinators were given the opportunity to review and comment of the elements of this plan. The following individuals designated as NFIP Coordinators identified:

Jurisdiction	NFIP Coordinator	Title
Butler County	Dave Alfaro	Floodplain Manager
Andover	Leslie Mangus	Floodplain Manager
Augusta	Josh Shaw	Floodplain Manager
Benton	Joyce Casady	Floodplain Manager
Cassoday	David Hinde	Mayor

Jurisdiction	NFIP Coordinator	Title
Douglass	Terri West	City Clerk/Administrator
El Dorado	Scott Rickard	Floodplain Manager
Elbing	Marsha Clark	Clerk
Latham	Bret Clavin	Mayor
Leon	Gerald Schuetz	Mayor
Potwin	Heath Austin	Fire Chief
Rose Hill	Rico Aguayo	City Administrator
Towanda	Lisa Long Hamilton	Floodplain Manager
Whitewater	Kathy Wiebe	Floodplain Manager
Cowley County	Tanner Langer	Floodplain Manager
Arkansas City	Josh White	Principal Planner
Atlanta	Deb Firebaugh	Floodplain Manager
Burden	Melodi Bowen	Floodplain Manager
Dexter	Shirley Wilson	City Clerk
Geuda Springs	Shannon Wendt	City Clerk
Parkerfield	Mike Bergagnini	Mayor
Udall	Lulita Hopkins	City Clerk
Winfield	Patrick Steward	Public Works Engineer
Harper County	Jackie Keim	Planning And Zoning Recording Secretary
Anthony	Cyndra Kastens	Floodplain Manager
Attica	T J Rausch	Floodplain Manager
Bluff City	Not specified	Not specified
Danville	Not specified	Not specified
Harper	Mike Aldritt	Surveyor
Harvey County	Karen Rothe	Planning And Zoning Director
Burrton	Jon Roberts	FPM/Fire Chief
Halstead	Ethan Reimer	FPM/City Clerk
Hesston	Scott Robertson	Utility Supervisor
Newton	Justin Erickson	Building/Zoning Administrator
North Newton	Kyle Fiedler	Floodplain Administrator City Administrator
Sedgwick	Brian Keller	City Administrator
Walton	Not specified	Not specified
Kingman County	Stan Goetz	Planning/Zoning- Floodplain Manager
Marion County	Sharon Omstead	Floodplain Manager
Burns	Faith Hatfield	City Clerk
Florence	Dana Gayle	City Clerk
Goessel	Jennifer Whitehead	City Clerk
Hillsboro	Matthew T. Stiles	Floodplain Manager
Lehigh	David Terrell	Floodplain Manager
Lincolnville	Not specified	Not specified
Lost Springs	Not specified	Not specified
Marion	Tim Makovec	Building Inspections
Peabody	Taylor Ensminger	Clerk/Zoning Admin.
Ramona	Jessica Gilbert	Floodplain Manager
Tampa	Donna Backhus	Floodplain Manager
McPherson County	Jon Kinsey	Planning And Zoning Administrator
Canton	Earl Maltbie	Mayor
Galva	Lori Tector	City Clerk
Inman	Barbara Tuxhorn	Floodplain Administrator

Jurisdiction	NFIP Coordinator	Title
Lindsborg	Jordan Jerkovich	Community Development Director
Marquette	Fred Peterson	City Clerk
McPherson	Virgil Lyon	Community Development Director
Moundridge	Murray T. McGee	City Administrator, Interim
Windom	Not specified	Not specified
Reno County	Mark A Vonachen	Co Planning /FPM
Buhler	Merrill Peterson	Clerk/FPM
Haven	Leslie Atherton	City Clerk
The Highlands	Jim Seitnater	Interim Planning Director
Hutchinson	Casey Hartman	Fpm/Superintendent
Nickerson	Debbie Fountain	City Clerk
Partridge	Ronnie Pederson	Public Works Supervisor
South Hutchinson	Loren Frees	Floodplain Administrator
Turon	Not specified	Not specified
Willowbrook	Frank Alexander	City Clerk
Rice County	Dave Larsen	Director Of Planning And Zoning
Chase	Gayla Godfrey	City Clerk
Little River	Sue Peters	City Clerk
Lyons	Brogan Jones	City Inspector
Sterling	Craig Crossette	City Manager/ Floodplain Administrator
Sedgwick County	Kelly Dixon	Interim Floodplain Administrator
Andale	Patty Hein	City Clerk
Bel Aire	Keith Price	Zoning Inspecter
Bentley	Lisa Wright	City Clerk
Cheney	Danielle Young	City Administrator
Clearwater	Courtney Zollinger	City Administrator
Colwich	Stephanie Guy	City Clerk
Derby	Dillan Curtis	Assistant Director Public Works
Eastborough	Daniel Wallace	Mayor
Garden Plain	Kimberly McCormick	City Clerk
Goddard	Micah Scoggan	City Planner
Haysville	Jonathan Tardiff	Planning And Zoning Administrator
Maize	Jolene Graham	Deputy City Administrator
Mount Hope	Charlie Beetch	City Clerk
Mulvane	Joel Pile	Floodplain Administrator
Park City	Debbie Jerauld	Planner
Valley Center	Ryan Shrack	Community Development Director
Wichita	Kelly Dixon	Interim Floodplain Administrator
Sumner County	Jon Bristor	Planning & Zoning
Argonia	Tara Pierce	City Clerk
Belle Plaine	Ramon Lujan	Zoning Admin
Geuda Springs	Shannon Wendt	City Clerk
Oxford	Patrick Kopfer	City Administrator
Wellington	Jason Newberry	Floodplain Administrator

Participation in the NFIP is based on an agreement between the municipality and the federal government. If a municipality agrees to adopt and enforce a floodplain ordinance designed to reduce future flood risks, all citizens in the participating municipality can purchase flood insurance.

In Kansas Region G, as part of NFIP participation communities must:

- Use current NFIP flood maps in adopting floodplain management regulations.
- Require permits for all development in Special Flood Hazard Area (SFHAs)
- Ensure that development does not increase the flood hazard on other properties.
- Meet current elevation standards. Ensuring the lowest occupied floor is elevated to or above the base flood elevation indicated on the NFIP flood map.

While most floodplain requirements have been incorporated into the current Building Codes, some additional provisions and regulations may be required by a community. Communities participating in the NFIP are required to adopt, enforce and maintain a local floodplain ordinance as a stipulation of compliance with the program. The purpose of this ordinance is to ensure public safety, minimize impact to persons and property from flooding, protect watercourses from encroachment, and maintain the capability of floodplains to retain and carry off floodwaters. The local floodplain administrator is typically the municipal official responsible for overseeing the enforcement and update of the document.

Floodplain ordinances are typically enforced by law enforcement departments or code enforcement offices. In general, the enforcement process generally works as follows:

- Identification of Violations: Violations are often identified through various means, such as citizen complaints, routine inspections, or observations by enforcement officers.
- Notification: Once a violation is identified, the responsible party is typically notified of the violation. This notification may come in the form of a written citation, warning letter, or verbal communication depending on the severity of the violation and local procedures.
- Correction Notice: In many cases, the responsible party is given a certain amount of time to correct the violation. They may be required to remedy the situation, obtain necessary permits, or comply with specific regulations.
- Follow-up Inspections: After the designated correction period, enforcement officers may conduct follow-up inspections to ensure that the violation has been addressed satisfactorily.
- Penalties and Fines: If the responsible party fails to comply with the ordinance or correct the violation within the specified timeframe, they may face penalties or fines. These penalties can vary depending on the nature and severity of the violation and may escalate for repeated offenses.
- Legal Action: In cases of persistent non-compliance or serious violations, local authorities may initiate legal proceedings against the responsible party. This can involve court appearances, injunctions, or other legal measures to compel compliance.

The following figure represents both pre- and post-disaster community NFIP requirements:

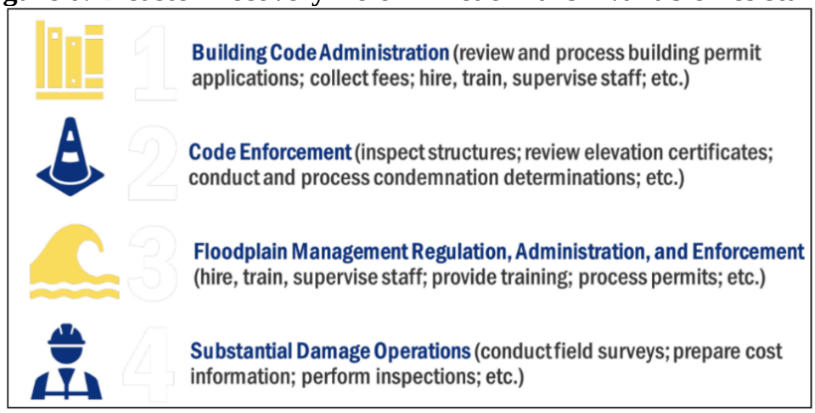
Figure 5: Pre- and Post-Disaster Community NFIP Requirements

Source: FEMA

When structures located in the SFHAs are substantially modified (more than 50% damaged or improved) they are required to be brought into compliance with current NFIP standards and local building codes. In cases of repairs being conducted as a result of damage, jurisdictional NFIP Coordinators are responsible for substantial damage and improvement determinations. These determinations are required for compliance in the NFIP and must be completed before residents begin repairs or permits are issued. However, the May 2020 Report to Congressional Committees on the National Flood Insurance Program by the United States Government Accountability indicates “FEMA generally

does not collect or analyze the results of these assessments, limiting its ability to ensure the process operat
Furthermore, FEMA has not clarified how communities can access NFIP claims data. Such data would help communities target substantial damage assessments after a flood." This has been found to be true in the Kansas Region G, with submitted information and data underutilized and some FEMA available data unshared and/or unadvertised.
Section 1206 of the Disaster Recovery Reform Act of 2018 authorizes the FEMA to provide communities with the resources to administer and enforce building code and floodplain management ordinances following a major disaster declaration through FEMA's Public Assistance Program. To be eligible for reimbursement under the Public Assistance Program, including for the Disaster Recovery Reform Act of 2018 Section 1206, communities must be designated for Public Assistance permanent work under a major disaster declaration and be legally responsible to administer and enforce building codes or floodplain management regulations. Communities must also be in good standing with the NFIP. Available assistance includes:

Figure 6: Disaster Recovery Reform Act of 2018 Available Assistance



Source: FEMA

It is worth noting that this assistance is available for a variety of hazards occurrence types, not just flooding.

Key to achieving across the board reduction in flood damages is a robust community assistance, education, and awareness program. As such, NFIP participating jurisdictions will continue to develop both electronic (including social media) and in person outreach activities.

5.5 Jurisdictional Plans

Planning plays a critical role in hazard mitigation by helping communities identify, assess, and reduce risks associated with natural and man-made hazards. Effective planning involves a proactive, strategic, and comprehensive approach to minimize the impact of disasters and enhance community resilience. Jurisdictions were asked if they had completed the following plans:

- Comprehensive Plan: A comprehensive plan establishes the overall vision for a jurisdiction and serves as a guide to decision making, and generally contains information on demographics, land use, transportation, and facilities. As a comprehensive plan is broad in scope the integration of hazard mitigation measures can enhance the likelihood of achieving risk reduction goals.
- Emergency Operations Plan: An emergency operations plan outlines the responsibility and means and methods by which resources are deployed during and following an emergency or disaster. In Kansas Region G, the overarching county provides emergency operation planning for jurisdictions within its borders.
- Fire Mitigation Plan: A fire mitigation plan is used to mitigate a jurisdiction's wildfire risk and vulnerability. The plan documents areas with an elevated risk of wildfires, and identifies the actions taken to decrease the risk. A fire mitigaion plan can influence and prioritize future funding for hazardous fuel reduction projects, including where and how federal agencies implement fuel reduction projects on federal lands.
- Flood Mitigation Assistance Plan: The purpose of the flood mitigation assistance plan is to reduce or eliminate the long-term risk of flood damage to buildings and other structures insured under the NFIP.

The following table details the status of these plan types for each participating jurisdiction, with the al
indicating that the jurisdiction does not currently have that specific plan:

Table 159: Jurisdictional Planning Capabilities

Jurisdiction	Comprehensive Plan	Emergency Operations Plan	Fire Mitigation Plan	Flood Mitigation Assistance Plan
Butler County	x	x		
Andover	x	x		
Augusta	x	x		
Benton	x	x		
Cassoday		x		
Douglass	x	x		
El Dorado	x	x		x
Elbing		x		
Latham		x		
Leon		x		
Potwin	x	x		x
Rose Hill	x	x		
Towanda	x	x		
Whitewater		x		
Cowley County		x		
Arkansas City	x	x		
Atlanta		x		
Burden		x		
Dexter		x		
Geuda Springs	x	x		
Parkerfield		x		
Udall	x	x		
Winfield	x	x		
Harper County	x	x	x	
Anthony		x		
Attica		x		
Bluff City		x		
Danville	x	x		
Harper	x	x	x	
Harvey County	x	x		x
Burrton	x	x		
Halstead	x	x		
Hesston	x	x		
Newton	x	x	x	
North Newton	x	x		
Sedgwick	x	x		
Walton	x	x		
Kingman County	x	x		
Marion County	x	x		
Burns				
Florence				
Goessel				
Hillsboro		x		
Lehigh		x		
Lincolnville		x		
Lost Springs		x		
Marion		x		
Peabody		x		
Ramona		x		
Tampa		x		

Table 159: Jurisdictional Planning Capabilities

Jurisdiction	Comprehensive Plan	Emergency Operations Plan	Fire Mitigation Plan	Flood Mitigation Assistance Plan
McPherson County	x	x		
Canton		x		
Galva		x		
Inman	x	x		
Lindsborg		x		
Marquette		x		
McPherson	x	x		
Moundridge	x	x		
Windom		x		
Reno County	x	x		
Buhler		x		x
Haven	x	x		x
The Highlands		x		
Hutchinson	x	x		
Nickerson	x	x		
Partridge		x		
South Hutchinson	x	x		
Turon		x		
Willowbrook		x		
Rice County	x	x		
Chase	x	x		
Little River		x		
Lyons	x	x		
Sterling		x		
Sedgwick County	x	x		
Andale		x		
Bel Aire	x	x		x
Bentley		x		
Cheney	x	x		
Clearwater		x		
Colwich		x		
Derby		x		
Eastborough		x		
Garden Plain	x	x		
Goddard		x		
Haysville	x	x		x
Maize	x	x		
Mount Hope		x		
Mulvane		x		
Park City	x	x		
Valley Center	x	x		
Wichita	x	x		x
Sumner County		x		
Argonia		x		
Belle Plaine	x	x		x
Geuda Springs		x		
Oxford		x		
Wellington		x		

Note: No X (or blank) indicates jurisdiction does not have plan

5.6 Challenges and Opportunities for Capability Improvement

As always, challenges exist for all participating jurisdictions due to the day-to-day demands of the working environment including staffing issues, budget restrictions, and staffing turnover. These issues can, and do, impact the utilization and incorporation of the HMP and the completion of identified hazard mitigation projects.

As part of this planning process, the MPC worked to identify gaps and deficiencies identified in the completion of this HMP. Resulting from this assessment is a series of problem statements, concise descriptions of issues or challenges that need to be addressed. These problem statements were determined to be applicable to all participating jurisdictions:

- Continued climate change is driving an increased incidence of major hazard occurrences, stressing the response, recovery, and mitigation capabilities of even the most prepared jurisdiction.
- Available funding for the completion of hazard mitigation projects is at a premium, with all participating jurisdiction seeing minimal room in the budget for any required project match.
- The difficulties in applying for and managing hazard mitigation grants is beyond the capability of smaller jurisdictions.
- Staffing at all levels is stretched thin, with many personnel wearing multiple hats, compromising mitigation capabilities.

Improving capabilities can lead to enhanced performance, increased efficiency, and better outcomes in hazard mitigation planning and implementation. The following identify recommended improvements for all jurisdictions, with some recommendations being applicable to all jurisdictions, and other being specific to identified jurisdictions:

- All participating jurisdictions should build a relationship with local meteorologists and the NWS to give priority access to rapidly developing weather conditions.
- All participating jurisdictions could receive instruction from the State of Kansas Division of Emergency Management /Homeland Security and FEMA Region VII on grant application processes and grant management strategies. These classes could help all participating jurisdictions receive available grant funding.
- All participating jurisdictions should consider adoption of the 2021 International Building Codes to ensure current constructions standards, including climate resiliency standards.
- Participating jurisdictions without a long-term community plan would benefit from the creation of a comprehensive plan to help plan and budget for hazard mitigation measures, policies, and procedures. Legal authority for Kansas local governments to develop comprehensive plans, both individually and with other jurisdictions, is found at K.S.A 12-747 and K.S.A. 19-2958. The statute also authorizes county planning commissions to develop comprehensive plans for unincorporated areas, and for cities, where appropriate.
- Jurisdictions that do not currently participate in the NFIP should enroll in the program.
- Current NFIP participants should apply for membership in the CRS to allow citizens to receive discounts off their federally backed flood insurance policies.
- All participating jurisdictions should explore engaging in public-private emergency planning partnerships to further increase hazard resiliency through the infusion of additional funding and expertise.

Additionally, to help overcome many of these identified challenges, participating jurisdictions will work collaboratively using the following strategies, as appropriate:

- Innovation and Adaptation: Foster a culture of innovation and adaptability. Encourage employees to think creatively, embrace change, and explore new ways of doing things to overcome challenges.
- Training and Development: Invest in training and development to enhance skills and knowledge.
- Communication Improvement: Enhance communications and provide clear and transparent communication when sharing information, aligning teams, and addressing concerns.
- Collaboration and Teamwork: Encourage collaboration and teamwork which allows for the pooling of diverse skills and perspectives, leading to more effective problem-solving (the MPC is a good example of effective use of this strategy).
- Technology Adoption: Embrace technology to streamline operations and enhance productivity.

- Agile Project Management: Implement agile project management methodologies to enhance responsiveness to changing conditions. Agile approaches allow teams to adapt quickly to challenges.

As appropriate, these strategies will be tailored for specific circumstances, with a combination of these strategies often being more effective than relying on a single approach.

Section 6 – Mitigation Strategy

6.1 Introduction

As part of this planning effort, Kansas Region G participating jurisdictions worked to minimize the risk of future impacts from identified hazards to all citizens of the region. In an attempt to shape future regulations, ordinances and policy decisions the MPC reviewed, revised, and developed a comprehensive hazard mitigation strategy. This comprehensive strategy includes:

- Goals to guide the selection of activities to mitigate and reduce potential loss.
- A discussion of funding capabilities for hazard mitigation projects.
- Identification, evaluation, and prioritization of mitigation actions along with potential funding sources.

Kansas Region G's mitigation strategy promotes long-term hazard resilience that will have a positive impact on quality-of-life issues. By minimizing both the exposure to, and potential impacts from, identified hazards jurisdictions can expect to minimize injuries and loss of life, reduce property damage, and minimize the day to day social and economic disruptions that follow hazard events.

6.2 Goals and Objectives

Kansas Region G's overall mitigation goal is to minimize the protect lives and properties within the region from the impacts of hazards identified in this plan. Based on discussion with the discussions by the MPC, it was determined that the goals (desired outcomes) identified in the 2019 HMP remained viable and valid. The following represent the identified goals for the 2024 HMP:

- **Goal 1:** Reduce the risk to the people and property from the identified hazards in this plan.
- **Goal 2:** Work to protect all vulnerable populations, structures, and critical facilities from the impacts of the identified hazards.
- **Goal 3:** Improve public outreach initiatives to include education, awareness, and partnerships with all entities in order to enhance the understanding identified hazards and hazard mitigation opportunities.
- **Goal 4:** Enhance communication and coordination among all agencies and between agencies and the public.

The Kansas Region G MPC will continuously evaluate these identified goals against current capabilities and conditions. As part of this process, the Kansas Region G MPC will utilize a monitoring and evaluation system to systematically track, assess, and measure the progress of activities and outcomes related to the goals outlined in this HMP. Key components to the monitoring and evaluation system include:

- Establishment of baseline data to quantify the starting point upon the approval of this plan. This will provide a reference against which progress can be measured.
- Enactment of a monitoring plan which outlines the specific activities, tasks, and responsibilities for regularly collecting, analyzing, and reporting data on the performance indicators.
- Identification and specification of the methods for collecting data, whether through surveys, interviews, focus groups, or observations.
- Definition of the criteria and methods for analyzing collected data. This includes determining how quantitative and qualitative data will be processed and interpreted to assess progress.
- Involvement of stakeholders to ensure that all perspectives are considered, and that feedback on the progress of achieving the delineated goals is taken into account.

In addition, the Kansas Region G MPC will work with all local, county, regional, and state agencies and policy makers to help integrate the goals delineated in the HMP and goals and plans for combating climate change.

6.3 Review and Creation of Hazard Mitigation Actions

Hazard mitigation actions are proactive measures taken to reduce or eliminate the long-term risk and impact of natural and human-made hazards. These actions are designed to minimize the damage caused by disasters and contribute to the overall resilience of communities and infrastructure.

For this plan update members of the MPC were provided with a complete list of previously identified mitigation actions and asked to review them to determine their status. Previously identified mitigation status was reported using the following definitions:

- **Completed:** The action has been fully completed.
- **Not Completed:** The action was not started or has been started and is not completed.
- **Revised:** Action has been revised to reflect current planning environment or identified changes.
- **Cancelled:** The action has been removed from consideration due to either a lack of resources or changing mitigation priorities.
- **Ongoing:** The action is completed and has become an ongoing activity or capability.

Additionally, MPC members and stakeholders were provided with opportunities to identify and incorporate newly identified actions based on the changing hazard environment or previously unidentified needs.

In preparing a mitigation strategy all reasonable and obtainable mitigation actions were considered to help achieve the general goals. Priorities were developed based on past damages, existing exposure to risk, and weaknesses identified by the State and local capability assessments. In identifying mitigation actions, the following activities were considered:

- The use of applicable building construction standards.
- Hazard avoidance through appropriate land-use practices.
- Relocation, retrofitting, or removal of structures at risk.
- Removal or elimination of the hazard.
- Reduction or limitation of the amount or size of the hazard.
- Segregation of the hazard from that which is to be protected.
- Modification of the basic characteristics of the hazard.
- Control of the rate of release of the hazard.
- Provision of protective systems or equipment for both cyber or physical risks.
- Establishment of hazard warning and communication procedures.
- Redundancy or duplication of essential personnel, critical systems, equipment, and information materials.

In general, all mitigation actions can be classified under one of the following broad categories:

- **Local plans and regulations:** Actions that create or update plans to reflect situational changes and/or actions that aid in the creation, revision, or adoption of regulations related to hazard mitigation and management.
- **Natural resource protection:** Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems.
- **Preparedness and response:** Emergency response or operational preparedness actions.
- **Public education and awareness:** Actions to inform and educate citizens, elected officials, and property owners about the hazards and potential ways to mitigate them.
- **Structural:** Actions that the modification of existing buildings or structures or involve the construction of structures to reduce the impact of hazard.

6.4 Prioritization of Mitigation Actions

The MPC and subject matter experts worked together to prioritize both previously identified and newly identified hazard mitigation actions. The methodology used to determine mitigation action priorities was based upon the following:

- Review of the updated risk assessments.

- Review of revised goals and objectives.
- Review of capabilities.

A multi-pronged and flexible analysis method was used for determining and prioritizing mitigation actions. An initial review of previously identified but not completed actions was conducted to ensure that, based on current condition and capabilities, the actions were still viable. Actions that were considered viable were retained in this plan update, with minor revisions completed as necessary.

For identified actions that were retained, and for newly identified actions, the FEMA recommended Social, Technical, Administrative, Political, Legal, Economic, and Environmental (STAPLEE) criteria were used to assist with prioritization. The following table details the STAPLEE criteria:

Table 160: STAPLEE Review Criteria

Criteria	Discussion	Example Considerations
Social	There should be community acceptance and support for the mitigation action?	Does the action have community acceptance? Will the proposed action adversely affect one segment of the population?
Technical	The proposed mitigation action should be technically feasible and should provide a long-term reduction in losses.	How effective is the action in avoiding or reducing future losses? Does it solve a problem or only a symptom? Does the action create additional problems?
Administrative	Personnel and administrative capabilities should be available to administer all phases of the project.	Are the staffing and administrative capabilities to implement the action in place? Is there someone to coordinate and lead the effort?
Political	Political support for the mitigation action needs to be present.	Is the action politically acceptable? Have political leaders been involved in the planning process? Is there a political champion to help see the project to completion?
Legal	The legal authority to implement the actions need to be in place or possible with the passing of laws or regulations.	Does the legal authority to implement the proposed action exist? Are there potential legal repercussions?
Economic	The current budget (and/or general obligation bonds or other instruments) need to be in place to fully fund the mitigation action.	Do the potential benefits of this action exceed the potential costs? Has funding been secured for the proposed action? What are the potential funding sources (public, non-profit, and private)? How will this action affect the fiscal capability of the community(s)? Does the action contribute to other community goals, such as capital improvements or economic development?
Environmental	Actions should interface with the need for sustainable and environmentally healthy communities. Also, statutory considerations, such as the National Environmental Policy Act need to considered for federal funds.	How will the action affect the environment? Will the action need environmental regulatory approvals? Will it meet federal, state, and local state regulatory requirements? Are endangered or threatened species likely to be affected?

Based on the prioritization review, the MPC assigned each action the following prioritized ranking:

- **High Priority:** Actions that provide substantial progress towards improving resiliency and are determined as potentially urgent in nature by the MPC. This would include actions that strongly support the reduction of high

hazard risks and meet mitigation goals. Additionally, actions in this ranking may have imm availability or strong community support.

- **Medium Priority:** Actions that provide reasonable progress towards improving resiliency and are determined as moderately urgent in nature by the MPC. This would include actions that would lessen impact hazard events, but not eliminate the impact completely.
- **Low Priority:** Actions that provide incremental progress towards improving resiliency and are determined as slightly urgent in nature by the MPC. This would include actions that are generally the responsibility of the local community, actions outside the normal authority of the State, or actions whose cost/benefit analysis returns a low yield.

6.5 Mitigation Action Funding Sources

It is generally recognized that mitigation actions help realize long term savings by preventing future losses due to hazard events. However, many mitigation actions are beyond the budgetary capabilities of a single jurisdiction. This section provides a general description of some of the avenues available to defray the cost of implementing mitigation actions.

FEMA provides financial assistance to state, local, tribal, and territorial governments, as well as certain private non-profit organizations, to implement projects that help reduce the risk and impact of future disasters. These grant programs are designed to support initiatives aimed at mitigating hazards and improving resilience. The main grant program offered by FEMA for hazard mitigation is the Hazard Mitigation Assistance (HMA) program. The HMA program includes four subprograms, the Hazard Mitigation Grant Program (HMGP), the HMGP Post-Fire, Building Resilient Infrastructure and Communities (BRIC), and the Flood Mitigation Assistance (FMA) grant program. Applicants to these grant programs are required to submit project proposals that demonstrate the effectiveness of their proposed mitigation projects. The eligibility criteria, application process, and specific requirements for each program are outlined by FEMA in their guidelines and announcements, which are typically published on FEMA's website.

The following provides a general overview of major grant funding streams:

- **HMGP and HMGP Fire:** The HMGP grants assist in implementing long-term hazard mitigation measures following Presidential disaster declarations, including fire declarations. Funding is available to implement projects in accordance with State, Tribal, and local priorities.
- **BRIC:** BRIC supports states, local communities, tribes and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. The BRIC program guiding principles are supporting communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency. Working in coordination with BRIC, the National Mitigation Investment Strategy is intended to provide a national, whole-community approach to investments in mitigation activities and risk management.
- **FMA Grant Program:** FMA is a competitive grant program that provides funding to states, local communities, federally recognized tribes and territories. Funds can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the NFIP. FEMA chooses recipients based on the applicant's ranking of the project and the eligibility and cost-effectiveness of the project. FEMA requires state, local, tribal and territorial governments to develop and adopt hazard mitigation plans as a condition for receiving certain types of non-emergency disaster assistance, including funding for hazard mitigation assistance projects.

The following chart summarizes HMA grants programs:

Chart 28: HMA Grant Program Summary

HMA Program Comparison	HMGP	HMGP Post Fire	BRIC	FMA
Program Type	Post-disaster	Post-disaster	Pre-disaster	Pre-disaster
Funding Availability	Presidentially declared disaster	FMAG-declared disaster	6% set aside from federal post-disaster grant funding	Annual appropriations
Competitive?	No	No	Yes	Yes
Eligible Applicants	States, federally recognized tribes, territories and the District of Columbia (DC)	States, federally recognized tribes, territories and DC	States, federally recognized tribes, territories and DC	States, federally recognized tribes, territories and DC
Eligible Subapplicants	State agencies, local governments, tribes and private nonprofit organizations	State agencies, local governments, tribes and private nonprofit organizations	State agencies, local governments and tribes	State agencies, local governments and tribes
Hazard Mitigation Plan Requirement	Yes	Yes	Yes	Yes
NFIP Participation	Communities with projects in Special Flood Hazard Areas (SFHAs)	Communities with projects in SFHAs	Communities with projects in SFHAs	Subapplicants and properties

Source: FEMA

Additionally, the following provide available grant funding avenues for hazard mitigation projects:

- **Rehabilitation Of High Hazard Potential Dam (HHPD) Grant Program:** HHPD awards provide technical, planning, design and construction assistance in the form of grants for rehabilitation of eligible high hazard potential dams. A state or territory with an enacted dam safety program, the State Administrative Agency, or an equivalent state agency, is eligible for the grant.
- **Emergency Management Performance Grant:** Program provides state, local, tribal and territorial emergency management agencies with the resources required for implementation of the National Preparedness System and works toward the National Preparedness Goal of a secure and resilient nation. Allowable costs support efforts to build and sustain core capabilities across the prevention, protection, mitigation, response and recovery mission areas.
- **State Homeland Security Program:** Program includes a suite of risk-based grants to assist state, local, tribal and territorial efforts in preventing, protecting against, mitigating, responding to and recovering from acts of terrorism and other threats. This grant provides grantees with the resources required for implementation of the National Preparedness System and working toward the National Preparedness Goal of a secure and resilient nation.
- **Nonprofit Security Grant Program:** Program is one of three grant programs that support DHS/FEMA's focus on enhancing the ability of state, local, tribal, and territorial governments, as well as nonprofits, to prevent, protect against, prepare for, and respond to terrorist or other extremist attacks. These grant programs are part of a comprehensive set of measures authorized by Congress and implemented by DHS to help strengthen the nation's communities against potential terrorist or other extremist attacks. Among the five basic homeland security missions noted in the DHS Strategic Plan for Fiscal Years 2020-2024
- **Public Assistance Program:** The mission of FEMA's Public Assistance program is to provide assistance to State, Tribal and local governments, and certain types of Private Nonprofit organizations so that communities can quickly respond to and recover from major disasters or emergencies declared by the President. Through the Public Assistance program, FEMA provides supplemental Federal disaster grant assistance for debris removal,

emergency protective measures, and the repair, replacement, or restoration of disaster-damaged, p facilities and the facilities of certain private non-profit organizations. The Public Assistance Program also encourages protection of these damaged facilities from future events by providing assistance for hazard mitigation measures during the recovery process. The Federal share of assistance is not less than 75% of the eligible cost for emergency measures and permanent restoration. The grantee determines how the non-Federal share (up to 25%) is split with the eligible applicants.

- **Individual Assistance Program:** After a disaster, the federal government determines if any county in the state meets the criteria for individual disaster assistance. The decision is based on damage related to the severity and magnitude of the event. When a county receives an Individual Assistance declaration from the President of the United States, anyone who lives in that county can apply for assistance.
- **Small Business Administration Disaster Loans:** The Small Business Administration provides low-interest disaster loans to homeowners, renters, businesses of all sizes, and most private nonprofit organizations. Small Business Administration disaster loans can be used to repair or replace the following items damaged or destroyed in a declared disaster: real estate, personal property, machinery and equipment, and inventory and business assets.
- **The Housing and Urban Development Agency**: Provides flexible grants to help cities, counties, and States recover from Presidentially declared disasters, especially in low-income areas, subject to availability of supplemental appropriations.
- **Community Development Block Grant Program**: This is a flexible program that provides communities with resources to address a wide range of unique community development needs. The program provides annual grants on a formula basis to general units of local government and States.
- **Individual and Households, Other Needs Assistance Program:** This program provides financial assistance to individuals or households who sustain damage or develop serious needs because of a natural or man-made disaster. The funding share is 75% federal funds and 25% state funds. The program provides grants for necessary expenses and serious needs that cannot be provided for by insurance, another federal program, or other source of assistance. The current maximum allowable amount for any one disaster to individuals or families is $25,000. The program gives funds for disaster-related necessary expenses and serious needs, including personal property, transportation, medical and dental, funeral, essential tools, flood insurance, and moving and storage.
- **WUI Grants:** The 10-Year Comprehensive Strategy focuses on assisting people and communities in the WUI to moderate the threat of catastrophic fire through the four broad goals of improving prevention and suppression, reducing hazardous fuels, restoring fire-adapted ecosystems, and promoting community assistance. The WUI Grant may be used to apply for financial assistance towards hazardous fuels and educational projects within the four goals of: improved prevention, re duction of hazardous fuels, restoration of fire-adapted ecosystems and promotion of community assistance.
- **Bureau of Indian Affairs Aid to Tribal Governments:** This program provides funds to Indian Tribal governments to support general Tribal government operations, to maintain up-to-date Tribal enrollment, to conduct Tribal elections, and to develop appropriate Tribal policies, legislation, and regulations. Funds may be used in a variety of ways to strengthen the capabilities of Indian tribes in self-government, community planning, and maintenance of membership records.
- **Bureau of Indian Affairs Replacement and Repair of Indian Schools:** Providing safe, functional, code-compliant, economical, and energy efficient education facilities for American Indian students attending Bureau of Indian Affairs owned or funded primary and secondary schools or residing in Bureau owned or funded dormitories.
- **Bureau of Indian Affairs Wildland Fire Management:** Cooperative agreements for grants and reimbursable costs related to wildland fire management directly associated with programs contracted by tribes under the authority of the National Indian Forest Resources Management Act.

Small and impoverished communities that receive grants may receive a federal cost share of up to 90% of the total amount approved under the grant award. As defined in 44 CFR 201.2, a small and impoverished community is:

- A community of 3,000 or fewer individuals that is identified by the State as a rural community
- Is not a remote area within the corporate boundaries of a larger city

- Is economically disadvantaged, by having an average per capita annual income of residents not e
  of national, per capita income
- The local unemployment rate exceeds by one percentage point or more, the most recently reported, average yearly national unemployment rate
- Any other factors identified in the State Plan in which the community is located

6.6 Completed Mitigation Actions

Kansas Region G and its participating jurisdictions remain committed to investigating and obtaining all available grant funding for the completion of hazard mitigation projects. Since the completion of the previous HMP, the MPC has been tracking the completion status of all identified hazard mitigation actions. The onset of COVID-19 early in the life of the 2019 HMP necessitated all available resources, funding, and capabilities to be reassigned to help manage the pandemic. Additionally, staff shortages and non-standard working arrangements were instituted for all agencies. As such, the Kansas Region G and its participating jurisdictions only managed to complete a sub-set of previously identified mitigation action items since the completion of the last HMP. Completed action are marked as such in the detailed list jurisdictional mitigation actions found in Appendix D.

6.7 Jurisdictional Mitigation Actions

To support the mitigation goals identified in this HMP, all participating Kansas Region G jurisdictions identified a comprehensive range mitigation projects and activities. The selected set carefully takes an all-hazards approach to mitigation while simultaneously addressing each of the plan's profiled hazards. The list of mitigation actions is based upon the potential to reduce risk to life and property with an emphasis on ease of implementation, community and agency support, consistency with local jurisdictions' plans and capabilities, available funding, and jurisdictional vulnerability. This plan update includes carryover mitigation actions from the 2019 HMP as they are still relevant and/or in progress or ongoing. It also includes projects that have been carried over due to a lack of funding and/or resources required for project completion during the last five-year cycle.

It is important to note that since the previous HMP, requirements for plan approval have changed. In the previous plan, all jurisdictions identified only a few actions, with many of the actions identified at the county level to cover local participants. As such, the actions in this plan have been re-written and reclassified on a wholesale basis to ensure each participating jurisdiction has identified at least one action per identified hazard. In doing so, presenting a comparison to previously identified actions in impractical. However, any actions previously identified that have been completed are noted to illustrate successes.

The Kansas Region G MPC acknowledges that the adoption and approval of this plan does not obligate any participating jurisdictions to complete each identified action. Rather, the MPC understands that progress should be shown in mitigation efforts which may include the completion of mitigation actions or other actions or progress in achieving the goals of the HMP.

A detailed list of each participating jurisdiction's hazard mitigation actions may be found in Appendix D. A revised version of the requirement allows for a more tailored approach to mitigation planning, ensuring that communities address the hazards most relevant to their circumstances while also acknowledging that not all hazards may be equally significant across different areas. It promotes a more efficient use of resources by focusing efforts on mitigating the most pressing risks faced by each community.

The following table details each participating jurisdiction's mitigation action items against identified hazards:

Table 161: Jurisdictional Mitigation Action Cross Check

Jurisdiction	All Hazards	Agricultural Infestation	Dam or Levee Failure	Drought	Earthquake	Extreme Temperatures	Flood	Severe Weather	Severe Winter Weather	Tornado	Wildfire
Butler County	1, 2, 3	4, 5	6, 7	4, 8	9	10	11, 12, 13, 14 ,15 ,16, 17	18, 19	20	17, 18, 21	21, 22
Andover	1, 2, 3, 4, 5, 6	X	X	7, 8, 9	X	X7	12, 13, 14, 15	11	12	13	22, 23, 24, 25, 26, 27
Augusta	X	X	15	X	X	8	1, 2, 3, 9, 10, 11, 12, 14, 15	4, 6, 7	X	4, 5, 6, 7, 13	X
Benton	1, 2, 3	X		4, 5		6	7, 8, 9	10	11	12	10, 13
Cassoday	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Elbing	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
El Dorado	1, 2, 3	X	X	4, 5	6	7	8,9, 10	12	11	12	13
Latham	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Leon	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Potwin	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Rose Hill	1, 2, 3	X	X	4, 5	6	7	8, 9, 10	11	12	13	11, 14
Towanda	1, 2, 3	X	X	4, 5	6	7	8,9, 10	12	11	12	13
Whitewater	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12
Augusta Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Benton Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Bloomington Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
El Dorado Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Fairmount Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Glencoe Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Little Walnut Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Milton Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Murdock Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Prospect Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Rosalia Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Spring Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Sycamore Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Union Township	1	X	X	X	X	X	2, 3, 4	4	X	X	4, 5
Butler Community College	1, 2	X	X	X	X	X	3	4, 5	4	4	4
St. James School	1, 2, 3	X	X	4	5	6	7	8	6	2	8
USD 205 - Bluestem	1, 2, 3	X	X	4	5	6	7	8	6	2	8
USD 206 – Remington	1, 2, 3	X	X	4	5	6	7	8	6	2	8
USD 375 – Circle	1, 2, 3	X	X	4	5	6	7	8	6	2	8
USD 385 – Andover	1, 2, 3	X	X	4	5	6	7	8	6	2	8
USD 394 – Rose Hill	1, 2, 3	X	X	4	5	6	7	8	6	2	8
USD 396 – Douglass	1, 2, 3, 4	X	X	X	5	6	7	8	6	X	8
USD 402 – Augusta	1, 2, 3	X	X	4	5	6	7	8	6	2	8
USD 490 – El Dorado	1, 4, 6, 7	X	X	X	X	X	X	2, 3	X	2, 3	X
USD 492 – Flinthills	1, 2, 3, 4	X	X	X	5	6	7	8	6	X	8
Butler Rural Electric Cooperative	1	X	2	2	2	2	2	2	2	2	2
Butler Co. Fire #3	1	X	X	X	X	X	X	X	X	X	2, 3
Butler Co. Fire #6	1	X	X	X	X	X	X	X	X	X	2, 3, 4
Butler Co. Fire #7	2	X	X	X	X	X	X	X	X	X	2, ,3, 4
Butler Co. Fire #10	1	X	X	X	X	X	X	X	X	X	2, 3
Whitewater River Consolidated Fire	1	X	X	X	X	X	X	X	X	X	2, 3
Butler Co. Conservation District	1	X	1	1	X	X	X	X	X	X	X

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Table 161: Jurisdictional Mitigation Action Cross Check

Jurisdiction	All Hazards	Agricultural Infestation	Dam or Levee Failure	Drought	Earthquake	Extreme Temperatures	Flood	Severe Weather	Severe Winter Weather	Tornado	Wildfire
Rural Water District #3	1	X	X	2	X	X	X	X	X	X	2
Rural Water District #5	1, 2	X	X	3, 4	X	X	X	X	X	X	3, 4
Rural Water District #7	1	X	X	2	X	X	X	X	X	X	2
Watershed District #18	1	X	2, 3, 4, 5, 6	X	X	X	X	X	X	X	X
Watershed District #22	1	X	2, 3, 4, 5, 6	X	X	X	X	X	X	X	X
Watershed District #27	1	X	2, 3, 4, 5, 6	X	X	X	X	X	X	X	X
Watershed District #28	1	X	2, 3, 4, 5, 6	X	X	X	X	X	X	X	X
Watershed District #33	1	X	2, 3, 4, 5, 6	X	X	X	X	X	X	X	X
Susan B Allen Hospital	1	X	X	X	1	X	X	1	1	1	1
Cowley County	1, 2, 3, 4	5, 6	7, 8	5, 9, 10	11	12, 13	14 ,15 ,16 ,17, 18	19, 20, 21	22, 23	21	24, 25
Arkansas City	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Atlanta	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Burden	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Dexter	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Geuda Springs	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Parkerfield	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Udall	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Winfield	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Beaver Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Dexter Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Bolton Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Harvey Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Liberty Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Maple Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Ninnescah Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Ottor Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Pleasant Valley Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Sheridan Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Silver Creek Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Silverdale Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Tisdale Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Walnut Township	1, 2 ,3	X	4	5	6	7	8, 9	10	11	12	10, 13
Cowley Community College	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 462 – Central	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 463 – Udall	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 465 – Winfield	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 470 – Arkansas City	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 471 – Dexter	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Cowley County RFD #4	1	X	X	X	X	X	X	X	X	X	2, 3
Cowley County RFD #7	1	X	X	X	X	X	X	X	X	X	2, 3
Rural Water District # 1	1	X	X	2	X	X	X	X	X	X	X
Big Caney RWD # 31	1	X	X	2	X	X	X	X	X	X	X
Butler REC	1	X	2	2	2	2	2	2	2	2	2
Sumner Cowley Electric Cooperative	1	X	2	2	2	2	2	2	2	2	2

Table 161: Jurisdictional Mitigation Action Cross Check

Jurisdiction	All Hazards	Agricultural Infestation	Dam or Levee Failure	Drought	Earthquake	Extreme Temperatures	Flood	Severe Weather	Severe Winter Weather	Tornado	Wildfire
Harper County	1, 2, 3, 4	5, 6	7, 8	5, 9, 10	11	12, 13	14 ,15 ,16 ,17, 18	19, 20, 21	22, 23	21	24, 25
Anthony	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Attica	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Bluff City	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Danville	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Harper	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
USD 361 - Anthony / Harper	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD - 511 Attica	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Sumner Cowley Electric Cooperative	1	X	2	2	2	2	2	2	2	2	2
Sunflower Electric	1	X	2	2	2	2	2	2	2	2	2
Wheatland REC	1	X	2	2	2	2	2	2	2	2	2
Patterson Hospital	1	X	X	X	X	X	X	2, 3	X	2, 3	2, 3
Harvey County	1, 2, 3, 4	5, 6	7, 8	5, 9, 10	11	12, 13	14 ,15 ,16 ,17, 18	19, 20, 21	22, 23	21	24, 25
Burrton	1, 2, 3	X	X	4, 5	6	7	8, 9, 10	11	12	13	11 ,14
Halstead	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Hesston	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Newton	1, 2, 3, 4, 5	X	6	7, 8	9	10	11, 12, 13	14	15	16	14, 17
North Newton	1, 2, 3	X	X	4, 5	6	7	8, 9, 10	11	12	13	11 ,14
Sedgwick	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Walton	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Alta Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Burrton Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Darlington Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Emma Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Halstead Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Highland Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Lake Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Lakin Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Macon Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Newton Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Pleasant Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Sedgwick Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
Walton Township	1, 2, 3	X	4	5	6	7	8, 9	10	11	12	10, 13
USD 369 - Burrton	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 373 - Newton	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 439 - Sedgwick	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 440 - Halstead	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 460 - Hesston	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Hesston College	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Ark Valley Electric Cooperative	1	X	2	2		2	2	2	2	2	2
Butler REC	1	X	2	2	2	2	2	2	2	2	2
Flint Hills REC	1	X	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4
Burrton CFD#5	1	X	X	X	X	X	X	X	X	X	2, 3
Harvey County RFD #1 (Walton)	1	X	X	X	X	X	X	X	X	X	2, 3
Harvey County RWD #1	1	X	X	2	X	X	X	X	X	X	X
Little Arkansas River Drainage District	1	X	1	1	1	1	1	1	1	X	X
Sand Creek Watershed	1	X	1	1	1	1	1	1	1	X	X
Kingman County	1, 2, 3, 4	5, 6	7, 8	5, 9, 10	11	12, 13	14 ,15 ,16 ,17, 18	19, 20, 21	22, 23	21	24, 25

Table 161: Jurisdictional Mitigation Action Cross Check

Jurisdiction	All Hazards	Agricultural Infestation	Dam or Levee Failure	Drought	Earthquake	Extreme Temperatures	Flood	Severe Weather	Severe Winter Weather	Tornado	Wildfire
USD 331 - Kingman/Norwich	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Ark Valley Electric Cooperative	1	X	2	2	2	2	2	2	2	2	2
Sumner Cowley Electric Cooperative	1	X	2	2	2	2	2	2	2	2	2
Marion County	1, 2, 3	4, 5	6	4	7	8, 9	10, 11, 12 13, 14 ,15	16, 17, 18, 21	19, 20	18	21
Burns	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Florence	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Goessel	1, 2, 3	X	4	5, 6	7	8	9, 10, 11, 12	13	14	15	13, 16
Hillsboro	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Lehigh	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Lincolnville	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Lost Springs	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
City of Marion	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Peabody	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Ramox	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Tampa	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Tabor College	1, 2, 3, 4, 5	X	X	6	7	X	8	4	5	4	5
USD 397 - Centre	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 398 - Peabody / Burns	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 408 - Marion / Florence	1, 2, 3, 4	X	X	5	6	X	7, 8	2	4	2	4
USD 410 - Hillsboro	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 411 - Goessel	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Marion County Special Education	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Butler REC	1	X	2	2	2	2	2	2	2	2	2
Flint Hills REC	1	X	2, 3	2, 3	2, 3	2, 3	2, 3	2, 3	2, 3	2, 3	2, 3
Hillsboro Hospital	1	X	X	X	X	X	X	3	X	3	3
St. Luke Hospital	1	X	X	X	X	X	X	3	X	3	3
Marion Fire District #1	1	X	X	X	X	X	X	X	X	X	2, 3
Marion Fire District #2	1	X	X	X	X	X	X	X	X	X	2, 3
Marion Fire District #5	1	X	X	X	X	X	X	X	X	X	2, 3
Marion Fire District #7	1	X	X	X	X	X	X	X	X	X	2, 3
Eastshore Water District	1	X	X	2	X	X	X	X	X	X	X
Rural Water District 1	1	X	X	2	X	X	X	X	X	X	X
Hillsboro Industries	1	X	X	X	X	X	X	X	X	X	X
McPherson County	1, 2, 3, 4	5, 6	7, 8	5, 9, 10	11	12, 13	14 ,15 ,16 ,17, 18	19, 20, 21	22, 23	21	24, 25
Canton	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Galva	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Inman	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Lindsborg	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Marquette	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
City of McPherson	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Moundridge	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Windom	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Bethany College	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Central Christian College of Kansas	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
McPherson College	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
St. Joseph Catholic School	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 400 – Lindsborg	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8

Table 161: Jurisdictional Mitigation Action Cross Check

Jurisdiction	All Hazards	Agricultural Infestation	Dam or Levee Failure	Drought	Earthquake	Extreme Temperatures	Flood	Severe Weather	Severe Winter Weather	Tornado	Wildfire
USD 418 - McPherson	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 419 - Canton	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 423 - Moundridge	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 448 - Inman	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Arkansas Valley Electric	1	X	1	1	1	1	1	1	1	1	1
DS&O Rural Electric	1	X	1	1	1	1	1	1	1	1	1
Flint Hills Electric	1	X	2	2	2	2	2	2	2	2	2
Midwest Energy, Inc.	1	X	1	1	1	1	1	1	1	1	1
McPherson Board of Public Utilities	1	X	1	1	1	1	1	1	1	1	1
Post Rock Rural Water District	1	X	X	2	X	X	X	X	X	X	X
Lindsborg Community Hospital	1	X	X	X	X	X	X	2	X	2	2
McPherson Hospital	1	X	X	X	X	X	X	2	X	2	2
Mercy Hospital	1	X	X	X	X	X	X	2	X	2	2
Reno County	1, 2, 3,	4	5	6	7	8	9, 10, 11, 12	13	13	13	14, 15, 16, 17, 18, 19
Buhler	2, 4	X	X	X	X	1	3	1	X	1	1
Haven	1, 2, 3	X	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3
The Highlands	1, 2, 3, 4, 5, 6	X	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	7	8		8	9, 10
Hutchinson	1, 2, 3	X	3	4, 5	6	7	8, 9, 10	11, 13	12	13	11, 14
Nickerson	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Partridge	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
South Hutchinson	1, 2, 3	X	1, 2, 3	1, 2, 3	1, 2, 3	4	5, 6, 7, 8	9	1, 2, 3	9	1, 2, 3
Turon	1, 2, 3	X	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3
Willowbrook	1	X	X	X	1	1	2, 3, 4, 5, 6, 7	1	1	1	1
Castleton Township	X	X	X	X	X	X	1, 2	X	X	X	X
Grant Township	X	X	X	X	X	X	1, 2	X	X	X	X
Haven Township	1	X	X	X	X	X	2, 3	1, 2	X	X	X
Salt Creek Township	1	X	X	X	X	X	2, 3	1, 2	X	X	X
Sylvia Township	1	X	X	X	X	X	2, 3	1, 2	X	X	X
Walnut Township	X	X	X	X	X	X	1, 2	X	X	X	X
Central Christian School	1, 2, 3	X	X	4	5	X	6	7	X	7	7
Holy Cross School	1	X	X	X	1	1	1	1	1	1	1
Hutchinson Community College	1, 2, 3	X	X	4	5	X	6	2	X	2	2
USD 309 - Nickerson	1, 2, 3, 4, 5	X	X	X	X	X	X	1, 4	4	1, 4	1
USD 310 - Fairfield	1	X	X	X	X	X	X	2, 3	X	2, 3	X
USD 312 - Haven	1	X	X	X	X	X	X	2, 3	X	2, 3	X
USD 313 - Buhler	4, 5	X	X	X	X	X	X	1, 2	2	1, 2	3
Hutchinson Correctional Facility	1, 2, 3	X	X	X	X	X	X	X	X	X	X
Hutchinson Regional Hospital	2, 3	X	X	X	X	X		1	1	1	X
Ark Valley Electric Cooperative	X	X	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7
Midwest Energy	X	X	1	1	1	1	1	1	1	1	1
Sunflower Electric	1, 2	X	2	2	2	2	2	2	2	2	2
Drainage District #2	X	X	1	X	X	X	1	X	X	X	X

Table 161: Jurisdictional Mitigation Action Cross Check

Jurisdiction	All Hazards	Agricultural Infestation	Dam or Levee Failure	Drought	Earthquake	Extreme Temperatures	Flood	Severe Weather	Severe Winter Weather	Tornado	Wildfire
Reno County Drainage District #3	X	X	1, 2, 3, 4	X	X	X	1, 2, 3, 4	X	X	X	X
Rice County	1, 2, 3, 4	5, 6	7, 8	5, 9, 10	11	12, 13	14 ,15 ,16 ,17, 18	19, 20, 21	22, 23	21	24, 25
Chase	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Little River	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Lyons	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Sterling	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
USD 405 - Lyons	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Ark Valley Electric Cooperative	1	X	2	2	2	2	2	2	2	2	2
Sunflower Electric	1	X	2	2	2	2	2	2	2	2	2
Sedgwick County	1	2, 3	4	2, 5, 6	7	8. 92	10, 11, 12, 13	14, 15, 160	16, 17	16, 18	19
Andale	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Bel Aire	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Bentley	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Cheney	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Clearwater	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Colwich	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Derby	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Eastborough	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Garden Plain	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Goddard	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Haysville	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Kechi	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Maize	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Mount Hope	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Mulvane	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Park City	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Valley Center	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
Wichita	1, 2	X	X	3, 4	X	5	6, 7	8	9	10	8, 11
USD 259 - Wichita	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 260 - Derby	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 261 - Haysville	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 262 - Valley Center	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 263 - Mulvane	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 264 - Clearwater	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 265 - Goddard	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 266 - Maize	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 267 - Renwick	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 268 - Cheney	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 356 - Conway Springs	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
USD 440 – Halstead-Bentley	1, 2, 3	X	X	4	5	6, 7	8	9	8	2	9
KU School Medicine	1, 2	X	X	3	X	6	X	5	X	X	X
Wichita State University	1, 2	X	X	3	X	6	X	5	X	X	X
Sedgwick County REC	1	X	2	2	2	2	2	2	2	2	2
Wheatland REC	1	X	2	2	2	2	2	2	2	2	2
Sedgwick County Fire District #1	1	X	X	X	X	X	X	X	X	X	2, 3
Sumner County	1, 2, 3, 4	5, 6	7, 8	5, 9, 10	11	12, 13	14 ,15 ,16 ,17, 18	19, 20, 21	22, 23	21	24, 25
Argonia	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Belle Plaine	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Geuda Springs	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
Oxford	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15

Table 161: Jurisdictional Mitigation Action Cross Check

Jurisdiction	All Hazards	Agricultural Infestation	Dam or Levee Failure	Drought	Earthquake	Extreme Temperatures	Flood	Severe Weather	Severe Winter Weather	Tornado	Wildfire
Wellington	1, 2, 3	X	4	5, 6	7	8	9, 10, 11	12	13	14	12, 15
USD 353 - Wellington	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 356 - Conway Springs	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 357 - Belle Plaine	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 358 - Oxford	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 359 - Argonia	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 360 - Caldwell	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
USD 509 - South Haven	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Wellington Christian Academy	1, 2, 3	X	X	4	5	6	7	2, 8	6	2	8
Sumner/Cowley Electric Cooperative	1	X	2	2	2	2	2	2	2	2	2
Sunflower Electric	1	X	2	2	2	2	2	2	2	2	2
Wheatland Electric	1	X	2	2	2	2	2	2	2	2	2
RWD #1	1	X	X	2	X	X	X	X	X	X	2
RWD #6	1	X	X	2	X	X	X	X	X	X	2
RWD #7	1	X	X	2	X	X	X	X	X	X	2
Sumner County Hospital District #1	1	X	X	X	X	X	X	3	X	3	3

Note: X: Jurisdiction did not consider hazard to be either a major risk to the community, provided an action for the hazard classified as all hazards, and/or the hazard to be managed by another entity.

Prior to the implementation of any action further feasibility analysis will be performed. Additionally, a Benefit-Cost Analysis that determines the future risk reduction benefits of a hazard mitigation project and compares those benefits to its costs will be conducted as required. Applicants and sub-applicants will use FEMA approved methodologies and tools, such as the Benefit-Cost Analysis Toolkit, to demonstrate the cost-effectiveness of their projects. The result of the analysis is a Benefit-Cost Ratio, and a project is considered cost-effective when the Benefit-Cost Ratio is 1.0 or greater. Depending on the project, either a full Benefit-Cost Analysis will be completed by entering documented values into the FEMA Benefit-Cost Analysis Toolkit, which calculates a benefit-cost ratio or, if the project meets specified criteria, a streamlined Benefit-Cost Analysis may be completed (FEMA's cost-effectiveness requirement is never waived).

6.8 Mitigation Action Implementation and Monitoring

Kansas Region G participating jurisdictions are responsible for implementing their identified mitigation actions. To foster accountability and increase the likelihood that actions will be implemented, every proposed action is assigned to a specific department or position as a champion. In general:

- The identified champion will be responsible for tracking and reporting on action status.
- The identified champion should provide input on whether the action as implemented is successful in reducing vulnerability, if applicable.
- If the action is unsuccessful in reducing vulnerability, the identified champion will be tasked with identifying deficiencies and additional required actions.

Additionally, each action has been assigned a proposed completion timeframe to determine if the action is being implemented according to plan.

In general, the Kansas Region G HMP is responsible for monitoring the progress of mitigation activities and projects throughout the county in conjunction with participating jurisdictions. To facilitate the tracking of any awarded hazard mitigation grants, the Kansas Region G MPC, in conjunction with participating jurisdictions, will compile a list of projects funded throughout the calendar year, if any, and add it to an electronic database administered by KDEM.

Additionally, the Kansas Region G MPC will monitor information on any other mitigation projects that w through hazard mitigation grants.

To track mitigation projects from initiation to closeout, participating jurisdictions will use a project tracking spreadsheet that includes, at a minimum, the following information:

- Applicant/Subrecipient
- Grant Identifier
- Contractor
- Total Cost Estimate
- Federal/Local share
- Award Date
- Period of Performance
- Quarterly Reports
- Subrecipient Risk
- Reimbursements

Upon completion of a project, a member of the awarded jurisdiction, a member of the Kansas Region G MPC, and a State of Kansas representative will conduct a closeout site visit to:

- Review all files and documents
- Review all procurement files and contracts to third parties
- Take photos of the completed project

Project closeout packages will generally be submitted 90 days after a project has been completed, and will include the following:

- Summary of documentation
- Pictures of completed project
- Materials, labor, and equipment forms, if required
- Close-out certification

6.9 Hazard Mitigation Plan Incorporation and Integration

The hazard mitigation plan is an overarching document that is both comprised of, and contributes to, various county, tribal, and local plans. Unfortunately, previous versions of the Kansas Region G HMP have not been incorporated into jurisdictional planning efforts. Under the leadership of the MPC, it is hoped that when future revisions occur to these other plans, they will be measured against the contents of this HMP. Plan integration will help:

- Align community goals, objectives, and prime concerns
- Avoid lost opportunities
- Eliminate duplication of effort

In cooperation with the MPC, each participating jurisdiction will be actively courted on incorporating elements of this hazard mitigation plan for any relevant plan, code or ordinance revision or creation. Each participating jurisdiction has committed to actively encourage all departments to implement actions that minimize loss of life and property damage from hazards. Whenever possible, each participating jurisdiction will use existing plans, policies, procedures, and programs to aid in the implementation of identified hazard mitigation actions.

On a local level, hazard mitigation plans can be integrated into various planning documents and initiatives to ensure a comprehensive and coordinated approach to reducing the impact of hazards. Local level plans where hazard mitigation strategies can be integrated include:

- Comprehensive Plans: Helps guide long term community development o ensure future resilience against identified hazards.

- Threat and Hazard Identification and Risk Assessment: Utilizes information from the HMP to i specific threats and hazards that may impact the community. This informs the development of strategies and resource allocation for emergency management capabilities, ensuring that the community is well-prepared to respond effectively.
- Comprehensive Land-Use Plans: Helps guide the development and zoning decisions in a way that minimizes vulnerability to hazards. This includes avoiding construction in high-risk areas and encouraging resilient building practices.
- Emergency Operations Plans: Contributes to detailing specific actions to be taken before, during, and after disasters to reduce vulnerability and enhance community resilience.
- Climate Action Plans: Can help address both short-term hazards and long-term climate-related risks. This includes considerations for extreme temperatures and changes in precipitation patterns.
- Transportation Plans: Helps ensure the resilience of transportation infrastructure to hazards such as floods, and earthquakes. This may involve designing infrastructure to withstand extreme weather events.
- Infrastructure Master Plans: Contributes to the design, construction, and maintenance of critical infrastructure, such as water supply systems, roads, bridges, and utility networks.
- Community Development Plans: Helps ensure that new development projects align with hazard resilience goals. This may involve establishing building codes that prioritize hazard-resistant construction.
- Open Space and Recreation Plans: Provides for the consideration of green infrastructure and open spaces for flood control, wildfire buffers, and other hazard mitigation purposes.
- School Emergency Plans: Enhances the safety and resilience of educational facilities. This may involve retrofitting buildings, establishing evacuation routes, and conducting regular drills.
- Public Health Preparedness Plans: Addresses potential health risks associated with hazards. This includes planning for medical surge capacity, disease prevention, and healthcare facility resilience.

Integration of hazard mitigation into these various plans ensures that resilience efforts are embedded in the broader fabric of community development. Coordination and collaboration among different sectors and stakeholders are essential for the successful implementation of hazard mitigation strategies on the local level. Plan incorporation and integration is crucial for creating a cohesive and coordinated approach to address various aspects of hazard mitigation. All stakeholders and participating jurisdictions utilize similar internal procedures for plan incorporation and integration. The following represent commonly utilized methods by all participating jurisdictions:

- Cross-Referencing: Identify and cross-reference relevant sections of different plans and policies. This involves explicitly noting connections between the goals, strategies, and actions outlined in one plan with those in others.
- Consistency Checks: Conduct consistency checks to ensure that the language, objectives, and strategies in different plans and policies align with each other.
- Joint Planning Committees: Establish joint planning committees or task forces that involve representatives from different departments or agencies responsible for various plans (for example, the MPC). These committees facilitate communication, collaboration, and the coordination of planning efforts across sectors.
- Collaborative Workshops and Meetings: Organize collaborative workshops and meetings to bring together stakeholders involved in different planning processes (as seen in the planning meetings for the HMP). These forums provide an opportunity for stakeholders to share information and discuss common goals.
- Alignment with State and Regional Plans: Ensure that local plans align with broader regional and state plans. This involves considering regional and state priorities and incorporating them into local planning efforts to create a harmonized approach to development.
- Data Sharing and Analysis: Share relevant data among planning efforts and conduct joint data analysis. This helps in creating a common understanding of the challenges and opportunities, facilitating evidence-based decision-making across different plans.
- Unified Implementation Strategies: This involves identifying common actions and initiatives that contribute to the achievement of multiple goals outlined in various plans.

All participating jurisdictions within Kansas Region G have good internal working relationships relationships with the State of Kansas and FEMA, indicating great potential for plan incorporation and integration across the planning area. Where appropriate, The Kansas Region G MPC will take the lead in integrating this HMP into overarching plans, codes, ordinances and any other relevant documents, policies, or procedures.

Federal Program Integration
KDEM and Kansas Region G work closely with FEMA Region VII in all aspects of planning, response, and mitigation. To ensure understanding and cooperation, the KDEM SHMO and Kansas Region G Emergency Managers regularly interface with FEMA mitigation staff on the status of local plans, changing FEMA guidelines, and opportunities for closer working relationships.

FEMA Grant Outcomes (FEMA GO)
The State of Kansas is currently working with FEMA to apply the FEMA GO system to all FEMA grants. The FEMA GO system allows users to apply, track, and manage all disaster and non-disaster grants and helps improve oversight and monitoring.

Risk Mapping, Assessment, and Planning Program
Kansas Region G and KDEM work closely with FEMA, tribal, and local partners to identify flood risk and promote informed planning and development practices through the Risk MAP program. Risk MAP is the process used to make FIRMs which both map flood risk and provide informational datasets. Mapping occurs in four phases:

- Discovery: An initial investigation into a community's flood risk, challenges, and goals.
- Analysis and Mapping: A complete engineering analysis is performed that leads to the initial updates to the flood maps. Work is completed with technical experts in each community to make sure the drafts line up with community knowledge.
- Preliminary Flood Map Release: A preliminary flood map and supporting preliminary flood hazard data is generated for review and comment.
- Map Adoption: Community takes full ownership of the updated flood maps and data.

Kansas Region G and KDEM work with FEMA during the map update process from discovery to map adoption. In addition, Kansas Region G and KDEM provide any available data to FEMA as requested.

Kansas Silver Jackets
The Kansas Silver Jackets is comprised of representatives from Federal and State agencies which support comprehensive and sustainable actions that reduce flood risk. In general, the Silver Jackets:

- Promote capacity to implement projects, programs, plans, policies, and legislative actions to reduce vulnerability to flooding.
- Foster and facilitate statewide coordination with organizations, agencies, and stakeholders to achieve flood risk reduction.
- Establish or supplement mechanisms to collaboratively identify issues and implement or recommend solutions.
- Increase and improve flood risk communication and outreach.
- Advise and assist communities in their efforts to become more resilient and less vulnerable to flood hazards.

FEMA National Safety of Dams Program
The State of Kansas is responsible for regulating the safety of dams and supports the National Safety of Dams Program.

Section 7 – Plan Maintenance

7.1 Introduction

The HMP is a living document that will be updated and submitted to FEMA for approval every five years as required by 44 CRF 201.4. During the five-year cycle, the plan will undergo continuous monitoring and evaluation to ensure that the policies, procedures, priorities, and state environment established in the plan reflect current conditions. Kansas Region G will utilize the MPC to provide plan updates, revisions, and data collection for future HMP planning purposes.

7.2 Plan Maintenance Responsibilities

KDEM serves as the lead coordinating agency for plan maintenance. Additional assistance in the plan maintenance process is provided by members of the MPC, subject matter experts, and representatives of local jurisdictions.

KDEM and the MPC will facilitate the review and revision of the HMP every five years. The review and revision will be an ongoing process. This process will incorporate all of the revisions made during the life of the plan, especially new data obtained from participating jurisdictions.

7.3 Plan Review Meetings

As part the Local Emergency Planning Committee (LEPC), a Mitigation Sub-Committee will be formed from members of the MPC. The LEPC Mitigation Sub-Committee will meet annually for the first two years after plan approval. Kansas Region G L EPC Mitigation Sub-Committee members will determine the meeting dates and locations and will ensure that the meetings are open to all participating jurisdictions and the public. The elected LEPC Mitigation Sub-Committee Chair will be the main point of contact for these meetings and will maintain attendance and meeting minutes.

The purpose of these meetings is to discuss agency capability changes, the status of proposed projects, and any new studies or mapping that may inform the HMP. Should a specific plan element or section require revision or amendment due to a state or federal legislation or policy change, the LEPC Mitigation Sub-Committee will work with the KDEM SHMO to complete a plan addendum and submit it to FEMA as quickly as is practicable.

During these meetings, and in order to monitor HMP progress, the following information will be tracked by the LEPC Mitigation Sub-Committee:

- How the actions from the mitigation strategy are being pursued and completed
    - Are actions being prioritized
- How the plan goals and objectives are being carried out
- How mitigation funding mechanisms are being utilized
- How local jurisdictions are receiving technical assistance

Additionally, the LEPC Mitigation Sub-Committee will monitor the following elements to ensure the HMP is current and correct:

- Reviewing the hazards and determining if any of them have changed
- Determining if there are new hazards that pose a risk to the state
- Ensuring goals and objectives are still relevant
- Determining if any actions have been completed or are deemed irrelevant
- Determining if new actions should be added
- Determining if capabilities have changed

After each meeting, the LEPC Mitigation Sub-Committee will compile a meeting report for usage in future plan revisions.

In addition to these meetings, MPC members and local jurisdictional representatives will monitor and evaluate the progress of mitigation projects via quarterly reports, site visits, correspondence, and reimbursements. Completed projects will be evaluated for loss avoidance and alignment with local development plans.

KDEM may request a non-scheduled report on the monitoring, evaluation, or updating of any portion of due to irregular progress on mitigation actions and or projects, in the aftermath of a hazard event, or for any reason deemed appropriate.

7.4 Plan Monitoring and Situational Change

Plan monitoring can be defined as the ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives. In the more limited approach, monitoring may focus on tracking projects and the use of the agency's resources. In the broader approach, monitoring also involves tracking strategies and actions being taken by partners and non-partners, and figuring out what new strategies and actions need to be taken to ensure progress towards the most important results.

The full MPC or the LEPC Mitigation Sub-Committee will track and record all substantial situational changes and will address, as appropriate, the following questions:

- Is the mitigation project under, over, or on budget?
- Is the mitigation project behind, ahead of, or on schedule?
- Are there any changes in jurisdictional capabilities which impact the plan?
- Are there any changes in jurisdictional hazard risk?
- Has the mitigation action been initiated, or its initiation planned?
- Is the current process of prioritizing mitigation actions and projects appropriate and accurate?
- Has the current method of incorporating mitigation actions and projects yielded a comprehensive action and project strategy to address seen and unforeseen hazards?
- If applicable, has participation in a mitigation action's collaboration been regular?
- Was a negative result caused directly or indirectly by insufficient levels of public outreach?
- If any, what plan updates occurred, why they occurred, and what is their impact?

7.5 Post-Disaster Review

After each Presidential disaster declaration, and in coordination with FEMA, KDEM and the full MPC will convene to document impacts on Kansas Region G and to determine if any mitigation actions should be considered to reduce future risk. This will allow for the development of hazard mitigation recommendations to FEMA during the disaster operation as well as to update the mitigation strategy as needed. The post-disaster review may coincide with established meetings or may be convened as separate events.

7.6 Plan Evaluation

A plan evaluation is a rigorous and independent assessment of either completed or ongoing activities to determine the extent to which they are achieving stated goals and contributing to decision making.

A plan evaluation report will be completed by either the full MPC or the LEPC Mitigation Sub-Committee when the situation dictates. The following situations are typical examples of when an evaluation will be necessary.

- Post hazard event
- Post training exercise
- Post tabletop or drill exercise
- Significant change or completion of a mitigation project
- Significant change or completion of a mitigation action

An evaluation report will ask the following questions in response to the previously listed events.

- Do the mitigation objectives and goals continue to address the current hazards?
- Are there new or previously unforeseen hazards?
- Does a change in hazard vulnerability demand a change of or addition of mitigation actions or projects?
- Does a change in the mitigation strategy demand a change of or addition of mitigation actions or projects?

- Are current resources appropriate for implementing a mitigation project?
- Was the outcome of a mitigation action/project expected?
- Are there implementation problems?
- Was the public engaged to the point where they were satisfied with current engagement strategies?
- Did the public participate in a number that produced a positive yield on the plan, action, or project?
- Are there coordination problems?

7.7 Plan Updates

Typically, the updating of a HMP is initiated upon the completion of a plan evaluation when the evaluation determines an update is appropriate. A plan update also occurs every five years per FEMA guidelines or at any time it is deemed necessary by MPC members or KDEM.

According to FEMA DMA 2000 guidelines for mitigation planning, Kansas Region G will begin the update process three years from this plan's adoption under the direction of the LEPC Mitigation Sub-Committee. An increase in meeting tempo to twice yearly will allow the LEPC Mitigation Sub-Committee to gather relevant information needed for the next plan update. The following meeting schedule indicates the tasks to be performed during this plan update period:

- **2026 Fall Meeting:** The LEPC Mitigation Sub-Committee will begin updating the risk assessment portion of the plan. Hazards will be analyzed to determine if they are still relevant, if location should be updated, and if new hazards should be added. Previous occurrences will be reviewed to help determine the probability of future events.
- **2027 Spring Meeting:** The LEPC Mitigation Sub-Committee will begin updating the vulnerability assessment. The MPC will update the vulnerability assessment portion of the plan. Data will need to be gathered for assets, critical facilities, building stock values, jurisdictional damages, etc.
- **2027 Fall Meeting:** The LEPC Mitigation Sub-Committee will review information received and determine if the goals and objectives are still relevant and if new ones should be added. Actions will be reviewed to determine if they should remain in the plan, have been completed, or are no longer relevant. The LEPC Mitigation Sub-Committee will review the potential funding sources for each action.
- **2028 Spring Meeting:** As appropriate, a new MPC for Kansas Region G will be formed, and all participating jurisdictions will be convened, to take over the planning process. The new MPC and all participating jurisdictions will evaluate the policies, programs, capabilities, and funding sources from the previous plan to determine if they are still accurate and if any new items should be added.
- **2028 Fall Meeting:** The new MPC and all participating jurisdictions will review the draft copy of the mitigation plan and make comments and updates if necessary. Formal submittal to FEMA for re-approval will follow.

In general, the following steps will be taken to complete the next HMP revision:

Table 161: Kansas Region G HMP Update Task List

Task	Action
1	Evaluate and update the planning process.
2	Review the stakeholder contact list and identify new stakeholders.
3	Initiate plan outreach and discussion, including a stakeholder meeting.
4	Consider the addition, removal, or modification of hazards identified in the plan.
5	Update and revise membership of the MPC.
6	Evaluate risk assessment methodologies and data sources.
7	Evaluate and update critical facility inventory information.
8	Evaluate and update the hazard profiles.
9	Evaluate and update the risk assessment summary.
10	Evaluate and update the mitigation strategy, including proposed mitigation actions.
11	Evaluate and update the mitigation implementation system.
12	Integrate new and updated local plans.
13	Evaluate and update other plans sections.

Table 161: Kansas Region G HMP Update Task List

Task	Action
14	Identify and add any additional sections or information needed.
15	Review updated plan in its entirety.
16	Conduct updated plan outreach, including public information, comment period, and meetings.
17	Integrate additional comments received.
18	Finalize plan document.
19	Complete crosswalk and submit final plan to FEMA for review and approval.
20	Make additional modifications as required.
21	Obtain jurisdictional adoption resolutions.

7.8 Continued Public Involvement

Kansas Region G and all participating jurisdictions are dedicated to involving the public in the continual shaping of the HMP and in the development of its mitigation projects and activities.

The Kansas Region G MPC, the LEPC Mitigation Sub-Committee, and all participating jurisdictions will continue to keep the public informed about hazard mitigation projects and activities through jurisdictional websites, and as appropriate, public announcements. The public will also be invited to participate in all meetings to review and discuss the mitigation-related events. Additionally, participating jurisdictions will present to public officials in a public forum concerning the progress of mitigation actions identified in this plan as progress is made.

Copies of the Kansas Region G HMP will be distributed to all the participating jurisdictions and made available to the public. Methods of public availability may include electronically posted on a website or a hard copy kept at a jurisdictional office.

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Appendix A – Kansas Region G Adoption Documentation and FEMA Region VII Approval Documentation

Appendix B – Community Feedback

Appendix C – FEMA National Risk Index Census Tract Data

Table C1: FEMA NRI Census Tract General Data

County	Census Tract	Population	Building Value	Agricultural Value	Area	All Hazard Risk Rating	All Hazard EAL	Social Vulnerability Rating	Community Resilience Rating
Butler	20101	2,269	$703,823,347	$114,966,799	471.2	Relatively Moderate	Relatively Moderate	Very Low	Relatively Moderate
Butler	20102	3,495	$620,805,512	$85,142,280	309.8	Relatively Moderate	Relatively Moderate	Relatively High	Relatively Moderate
Butler	20204	3,310	$504,800,961	$3,497,408	24.7	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Butler	20205	4,139	$1,403,555,732	$7,016,107	93.3	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Butler	20206	4,460	$731,546,904	$84,952	2.4	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Butler	20207	3,897	$555,513,200	$0	2.0	Relatively Low	Relatively Moderate	Very Low	Relatively Moderate
Butler	20208	3,292	$733,422,276	$859,766	4.1	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Butler	20209	1,913	$327,515,508	$1,736,275	15.9	Relatively Low	Relatively Low	Very Low	Relatively Moderate
Butler	20210	3,251	$516,892,013	$2,235,934	12.2	Relatively Moderate	Relatively Moderate	Very Low	Relatively Moderate
Butler	20300	3,739	$574,910,210	$1,945,774	5.8	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Butler	20400	2,225	$747,872,036	$0	1.1	Relatively Moderate	Relatively Moderate	Relatively High	Relatively Moderate
Butler	20500	5,313	$819,746,597	$0	2.6	Relatively Moderate	Relatively Moderate	Relatively High	Relatively Moderate
Butler	20601	4,438	$895,775,468	$6,666,109	52.4	Relatively Moderate	Relatively Moderate	Very Low	Relatively Moderate
Butler	20602	3,110	$688,363,561	$42,895,646	166.6	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Butler	20700	3,999	$556,130,515	$22,005	3.5	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Butler	20800	2,913	$554,546,943	$96,089	1.8	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Butler	20901	4,143	$778,405,819	$18,344,028	143.5	Relatively Moderate	Relatively Moderate	Very Low	Relatively Moderate
Butler	20902	3,994	$554,811,633	$613,178	6.0	Relatively Moderate	Relatively Moderate	Very Low	Relatively Moderate
Butler	20903	3,440	$698,767,334	$19,169,146	142.4	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Cowley	493100	2,535	$798,089,072	$48,790,745	628.4	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Cowley	493200	2,921	$762,798,517	$24,487,677	244.3	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Cowley	493300	2,710	$939,242,685	$21,850,822	152.7	Relatively Moderate	Relatively Moderate	Very Low	Relatively Moderate
Cowley	493400	2,419	$643,796,987	$1,844,110	11.9	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Cowley	493500	5,017	$965,527,112	$1,227,033	14.9	Relatively High	Relatively Moderate	Relatively High	Relatively Moderate
Cowley	493600	4,094	$820,419,036	$2,868	2.0	Relatively Moderate	Relatively Moderate	Very High	Relatively Moderate
Cowley	493700	3,450	$636,512,564	$133,835	4.4	Relatively High	Relatively Moderate	Very High	Relatively Moderate
Cowley	493800	4,454	$597,455,296	$1,326,029	9.2	Relatively Moderate	Relatively Moderate	Relatively High	Relatively Moderate
Cowley	493900	3,216	$593,037,399	$10,955,360	71.7	Relatively Moderate	Relatively Moderate	Very Low	Relatively Moderate
Cowley	494000	2,277	$588,065,492	$0	1.8	Relatively Moderate	Relatively Moderate	Very High	Relatively Moderate
Cowley	494100	1,448	$224,800,187	$52,196	2.5	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Harper	961600	1,966	$739,475,301	$45,896,848	225.1	Relatively Moderate	Relatively Moderate	Relatively High	Relatively Moderate
Harper	961700	1,296	$857,447,605	$57,628,621	556.0	Relatively Moderate	Relatively Moderate	Relatively High	Relatively Moderate
Harper	961800	2,219	$668,498,486	$3,280,444	29.7	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Harvey	30100	4,511	$689,285,642	$3,384,819	7.8	Relatively Moderate	Relatively Moderate	Very High	Very High
Harvey	30200	5,277	$810,859,162	$6,287,138	12.0	Relatively Moderate	Relatively Moderate	Relatively High	Very High
Harvey	30300	5,726	$964,959,162	$1,504,326	9.9	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High
Harvey	30400	5,003	$1,174,083,211	$600,313	5.4	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High
Harvey	30500	6,130	$1,932,809,206	$88,564,393	264.1	Relatively High	Relatively High	Relatively High	Very High
Harvey	30601	3,520	$832,161,609	$38,924,003	146.7	Relatively Moderate	Relatively Moderate	Relatively Low	Very High
Harvey	30602	3,857	$975,950,237	$21,265,165	100.3	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High
Kingman	961100	2,344	$833,111,674	$42,904,744	378.7	Relatively Moderate	Relatively Moderate	Very Low	Relatively High

Table C1: FEMA NRI Census Tract General Data

County	Census Tract	Population	Building Value	Agricultural Value	Area	All Hazard Risk Rating	All Hazard EAL	Social Vulnerability Rating	Community Resilience Rating
Kingman	961200	3,419	$981,649,374	$515,301	14.3	Relatively Moderate	Relatively High	Relatively Moderate	Relatively High
Kingman	961300	1,707	$881,652,460	$46,944,628	482.4	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Marion	489500	1,512	$841,177,770	$51,968,480	336.8	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Marion	489600	3,808	$1,070,542,952	$27,554,956	131.5	Relatively High	Relatively High	Relatively Low	Relatively High
Marion	489700	2,798	$860,450,872	$21,735,505	147.6	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High
Marion	489800	3,699	$1,171,601,903	$66,796,377	347.5	Relatively High	Relatively High	Relatively Moderate	Relatively High
McPherson	788100	2,848	$620,359,636	$44,401,447	230.2	Relatively Moderate	Relatively Moderate	Very Low	Very High
McPherson	788200	3,978	$650,138,214	$3,876,155	22.0	Relatively Moderate	Relatively Moderate	Relatively Low	Very High
McPherson	788300	2,775	$734,002,199	$65,122,434	355.1	Relatively Moderate	Relatively Moderate	Relatively Low	Very High
McPherson	788400	6,434	$1,277,576,391	$4,100,281	15.2	Relatively High	Relatively High	Relatively Moderate	Very High
McPherson	788500	1,707	$475,222,248	$0	0.7	Relatively Low	Relatively Low	Relatively Low	Very High
McPherson	788600	6,400	$1,467,841,271	$5,205,135	20.3	Relatively High	Relatively High	Relatively High	Very High
McPherson	788700	6,075	$1,442,282,854	$55,163,408	266.2	Relatively High	Relatively High	Relatively Moderate	Very High
Reno	100	3,362	$931,816,888	$110,247	2.7	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High
Reno	200	4,034	$779,907,830	$0	1.4	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High
Reno	300	6,918	$839,695,611	$131,650	2.9	Relatively Moderate	Relatively High	Relatively Low	Relatively High
Reno	400	3,421	$296,038,259	$2,085	1.1	Relatively Low	Relatively Moderate	Relatively Low	Relatively High
Reno	500	5,358	$777,571,010	$0	1.4	Relatively Moderate	Relatively Moderate	Very Low	Relatively High
Reno	600	2,613	$841,476,453	$0	1.0	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Reno	700	5,143	$627,661,281	$0	1.5	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Reno	800	3,114	$913,674,388	$1,731,229	4.5	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Reno	1000	2,076	$551,673,913	$0	2.0	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Reno	1100	5,368	$1,509,049,089	$2,698,170	32.9	Relatively High	Relatively High	Relatively Low	Relatively High
Reno	1200	3,377	$615,185,258	$5,224,282	32.0	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High
Reno	1300	2,753	$916,179,591	$1,994,781	16.9	Relatively High	Relatively Moderate	Relatively High	Relatively High
Reno	1400	4,887	$1,573,254,745	$61,452,198	281.0	Relatively High	Relatively High	Relatively Moderate	Relatively High
Reno	1500	3,291	$624,423,015	$21,317,645	77.1	Relatively High	Relatively High	Relatively Moderate	Relatively High
Reno	1600	1,769	$375,807,448	$21,598,040	130.3	Relatively Low	Relatively Moderate	Relatively Low	Relatively High
Reno	1700	2,250	$760,366,631	$83,355,223	475.6	Relatively Moderate	Relatively High	Relatively Low	Relatively High
Reno	1800	2,150	$673,325,719	$49,045,900	220.7	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Rice	967100	2,160	$814,446,157	$173,011,842	348.3	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Rice	967200	3,787	$968,437,885	$17,601,204	36.6	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Rice	967300	3,464	$997,560,669	$79,527,536	350.5	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	100	3,231	$315,495,216	$0	0.6	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	200	3,032	$266,602,950	$0	0.6	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	300	4,728	$686,677,846	$0	0.9	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Sedgwick	400	2,847	$1,515,951,616	$0	1.6	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Sedgwick	600	1,970	$291,035,760	$0	0.7	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	700	3,414	$365,016,937	$0	0.8	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	800	2,214	$260,877,318	$0	0.5	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	900	3,511	$1,303,413,385	$0	1.1	Relatively Moderate	Relatively Moderate	Very High	Relatively High

Table C1: FEMA NRI Census Tract General Data

County	Census Tract	Population	Building Value	Agricultural Value	Area	All Hazard Risk Rating	All Hazard EAL	Social Vulnerability Rating	Community Resilience Rating
Sedgwick	1000	3,841	$346,891,054	$0	0.9	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	1100	2,102	$506,966,025	$0	0.5	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	1400	3,824	$574,989,085	$4,471	1.5	Relatively Low	Relatively Low	Relatively Low	Relatively High
Sedgwick	1500	2,999	$324,333,202	$0	0.7	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	1800	1,850	$650,976,290	$0	0.7	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	1900	2,063	$417,239,176	$0	0.4	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	2000	2,055	$377,465,119	$0	0.4	Very Low	Relatively Low	Very Low	Relatively High
Sedgwick	2200	1,626	$288,517,961	$0	0.4	Very Low	Very Low	Very Low	Relatively High
Sedgwick	2300	1,974	$310,623,602	$0	0.5	Relatively Low	Relatively Low	Relatively Low	Relatively High
Sedgwick	2400	1,462	$563,649,096	$0	0.6	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	2600	1,269	$287,435,589	$0	0.4	Relatively Low	Very Low	Very High	Relatively High
Sedgwick	2700	1,572	$373,775,753	$0	0.5	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	2800	3,211	$492,891,308	$0	0.7	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	2900	2,909	$255,598,925	$0	0.6	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	3000	2,159	$288,682,506	$0	0.6	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	3100	2,206	$386,002,858	$0	0.7	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	3200	2,780	$374,822,295	$0	0.6	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	3400	3,051	$619,143,113	$0	0.8	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	3500	2,097	$241,370,357	$0	0.5	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	3600	3,269	$324,324,496	$0	0.6	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	3700	2,022	$128,081,284	$0	0.2	Relatively Low	Very Low	Very High	Relatively High
Sedgwick	3800	2,602	$332,894,563	$0	0.8	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	3900	4,428	$468,856,214	$0	0.9	Relatively Moderate	Relatively Low	Very High	Relatively High
Sedgwick	4000	4,461	$448,012,281	$0	0.9	Relatively Moderate	Relatively Low	Very High	Relatively High
Sedgwick	4301	4,041	$2,034,800,882	$0	0.9	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Sedgwick	4302	2,036	$949,064,014	$0	0.8	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	5100	4,704	$637,371,053	$0	2.0	Relatively Moderate	Relatively Low	Very High	Relatively High
Sedgwick	5200	4,329	$386,584,906	$0	0.8	Relatively Moderate	Relatively Low	Very High	Relatively High
Sedgwick	5300	5,843	$634,357,705	$0	1.4	Relatively Low	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	5401	3,591	$596,934,233	$387,354	5.6	Relatively Low	Relatively Low	Relatively Low	Relatively High
Sedgwick	5402	5,054	$598,972,581	$65,928	2.4	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Sedgwick	5501	4,830	$707,877,055	$6	2.2	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Sedgwick	5502	5,574	$517,079,628	$231,359	2.5	Relatively Low	Relatively Low	Relatively Low	Relatively High
Sedgwick	5600	4,853	$758,579,379	$102,247	5.2	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High
Sedgwick	5700	5,681	$795,068,185	$14,603	3.0	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Sedgwick	5800	4,050	$506,761,187	$169,178	3.4	Relatively Moderate	Relatively Low	Very High	Relatively High
Sedgwick	5900	4,497	$731,448,491	$0	2.8	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Sedgwick	6000	4,499	$492,136,897	$0	1.7	Relatively Moderate	Relatively Low	Very High	Relatively High
Sedgwick	6100	3,096	$394,254,405	$0	1.0	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	6200	3,523	$300,942,212	$0	0.7	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	6300	2,085	$476,131,621	$0	0.8	Relatively Low	Relatively Low	Relatively High	Relatively High

Table C1: FEMA NRI Census Tract General Data

County	Census Tract	Population	Building Value	Agricultural Value	Area	All Hazard Risk Rating	All Hazard EAL	Social Vulnerability Rating	Community Resilience Rating
Sedgwick	6400	1,792	$236,922,785	$0	0.6	Very Low	Very Low	Relatively Moderate	Relatively High
Sedgwick	6500	3,429	$298,170,034	$0	0.8	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	6600	2,521	$2,605,418,821	$61,011	9.0	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	6700	2,362	$208,675,048	$0	0.5	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	6800	4,375	$503,335,492	$0	0.8	Relatively Moderate	Relatively Low	Very High	Relatively High
Sedgwick	6900	2,817	$222,660,780	$0	0.5	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	7000	3,682	$414,630,232	$0	0.9	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	7101	2,142	$373,017,184	$0	0.7	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	7102	4,896	$361,627,186	$0	0.7	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	7201	4,242	$1,391,857,453	$227	4.1	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High
Sedgwick	7205	3,334	$456,484,060	$0	1.0	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	7206	2,976	$297,795,782	$0	0.5	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	7207	3,572	$475,896,270	$11,125	1.9	Relatively Low	Relatively Low	Very Low	Relatively High
Sedgwick	7208	6,062	$798,619,987	$25,404	2.2	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High
Sedgwick	7301	3,774	$1,077,961,351	$0	1.8	Relatively Low	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	7302	3,580	$1,025,457,130	$0	1.6	Relatively Low	Relatively Moderate	Very Low	Relatively High
Sedgwick	7500	2,576	$211,097,942	$0	0.5	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	7600	4,082	$759,830,737	$0	1.7	Relatively Moderate	Relatively Low	Relatively High	Relatively High
Sedgwick	7701	3,087	$325,672,984	$41,605	1.6	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	7702	5,292	$685,278,405	$0	1.0	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Sedgwick	7800	2,598	$278,451,096	$8,941	0.9	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	8000	6,155	$886,012,609	$53,696	3.1	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	8100	4,704	$2,452,645,025	$417,309	11.7	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High
Sedgwick	8200	6,857	$691,543,568	$0	1.9	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Sedgwick	8300	4,169	$593,890,169	$0	2.1	Relatively Low	Relatively Low	Very Low	Relatively High
Sedgwick	8400	3,337	$678,926,289	$0	1.1	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	8500	2,400	$313,522,365	$0	0.8	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	8600	3,620	$386,880,411	$0	0.9	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	8700	3,960	$489,394,422	$0	0.9	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	8800	4,615	$514,287,612	$0	1.4	Relatively Moderate	Relatively Low	Relatively High	Relatively High
Sedgwick	8900	3,415	$809,212,275	$0	1.6	Relatively Moderate	Relatively Low	Relatively High	Relatively High
Sedgwick	9000	2,940	$855,711,838	$0	1.2	Relatively Moderate	Relatively Low	Relatively High	Relatively High
Sedgwick	9100	6,648	$2,239,579,423	$26,823	4.1	Relatively High	Relatively Moderate	Very High	Relatively High
Sedgwick	9200	2,873	$2,873,698,377	$82,532	8.5	Relatively Moderate	Relatively High	Relatively Low	Relatively High
Sedgwick	9301	5,945	$719,718,631	$0	2.0	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High
Sedgwick	9303	3,035	$525,953,735	$0	1.0	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	9304	2,489	$271,130,196	$6,578	0.8	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	9401	3,823	$527,199,663	$0	1.0	Relatively Low	Relatively Low	Very Low	Relatively High
Sedgwick	9402	2,383	$389,371,208	$0	1.0	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	9504	4,444	$599,019,911	$0	1.0	Relatively Low	Relatively Low	Relatively Low	Relatively High
Sedgwick	9505	2,973	$478,511,606	$0	1.0	Relatively Low	Relatively Low	Very Low	Relatively High

Table C1: FEMA NRI Census Tract General Data

County	Census Tract	Population	Building Value	Agricultural Value	Area	All Hazard Risk Rating	All Hazard EAL	Social Vulnerability Rating	Community Resilience Rating
Sedgwick	9506	4,719	$561,248,962	$0	1.0	Relatively Low	Relatively Low	Very Low	Relatively High
Sedgwick	9507	6,657	$1,099,557,448	$2,262,404	17.8	Relatively Moderate	Relatively Moderate	Very Low	Relatively High
Sedgwick	9508	3,470	$706,320,144	$954,674	6.0	Relatively Low	Relatively Low	Very Low	Relatively High
Sedgwick	9509	7,450	$1,250,263,131	$1,468,176	9.0	Relatively Moderate	Relatively Moderate	Very Low	Relatively High
Sedgwick	9510	4,929	$765,342,412	$168,236	3.0	Relatively Low	Relatively Moderate	Very Low	Relatively High
Sedgwick	9511	7,391	$932,043,860	$12,400	3.1	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	9512	4,092	$593,890,690	$0	1.0	Relatively Low	Relatively Low	Very Low	Relatively High
Sedgwick	9513	4,648	$722,987,175	$0	1.0	Relatively Low	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	9514	3,810	$1,080,532,908	$28,276	4.9	Relatively Low	Relatively Moderate	Very Low	Relatively High
Sedgwick	9515	6,247	$1,032,457,107	$18,723	2.0	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	9603	2,765	$447,478,164	$308,282	3.0	Relatively Low	Relatively Low	Very Low	Relatively High
Sedgwick	9604	2,859	$552,344,852	$1,330,226	10.1	Relatively Low	Relatively Low	Relatively Low	Relatively High
Sedgwick	9605	6,133	$1,722,066,266	$14,067,988	86.8	Relatively Moderate	Relatively Moderate	Very Low	Relatively High
Sedgwick	9700	5,981	$1,039,565,039	$9,830,402	66.7	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	9801	4,417	$804,719,089	$20,118	3.0	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Sedgwick	9803	4,428	$829,241,335	$0	1.4	Relatively Low	Relatively Moderate	Very Low	Relatively High
Sedgwick	9804	3,573	$470,534,251	$0	1.0	Relatively Low	Relatively Low	Very Low	Relatively High
Sedgwick	9901	5,124	$723,405,167	$1,870,640	16.0	Relatively Low	Relatively Moderate	Very Low	Relatively High
Sedgwick	9902	5,911	$887,991,304	$1,691,221	18.3	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	10001	4,586	$844,876,381	$62,165	4.1	Relatively Low	Relatively Moderate	Very Low	Relatively High
Sedgwick	10002	5,114	$985,414,210	$93,836	4.1	Relatively Low	Relatively Moderate	Very Low	Relatively High
Sedgwick	10003	2,171	$273,296,876	$30,090	0.7	Very Low	Relatively Low	Very Low	Relatively High
Sedgwick	10005	3,989	$492,057,694	$8,770	1.8	Relatively Low	Relatively Low	Relatively Low	Relatively High
Sedgwick	10006	1,598	$374,670,355	$3,354,687	14.2	Relatively Low	Relatively Low	Relatively Low	Relatively High
Sedgwick	10007	7,285	$1,188,172,482	$2,547,758	19.1	Relatively Moderate	Relatively Moderate	Very Low	Relatively High
Sedgwick	10106	3,051	$556,330,967	$0	1.7	Relatively Low	Relatively Low	Relatively Low	Relatively High
Sedgwick	10107	3,575	$512,084,210	$0	1.0	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	10108	2,158	$544,178,725	$0	1.0	Very Low	Relatively Low	Very Low	Relatively High
Sedgwick	10109	2,347	$675,421,644	$422,461	1.0	Relatively Low	Relatively Low	Very High	Relatively High
Sedgwick	10110	1,579	$457,018,107	$0	1.0	Very Low	Relatively Low	Very Low	Relatively High
Sedgwick	10111	7,896	$1,075,468,751	$554,477	3.6	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	10113	4,797	$1,593,655,647	$2,300,089	16.7	Relatively Moderate	Relatively Moderate	Very Low	Relatively High
Sedgwick	10115	8,791	$2,117,033,892	$459,334	5.6	Relatively Moderate	Relatively High	Relatively Low	Relatively High
Sedgwick	10116	4,671	$1,420,178,158	$14,762,737	70.5	Relatively Moderate	Relatively Moderate	Very Low	Relatively High
Sedgwick	10201	5,318	$752,664,573	$121,872	2.5	Relatively Low	Relatively Moderate	Very Low	Relatively High
Sedgwick	10202	4,893	$1,287,653,040	$11,933,079	70.4	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	10301	8,928	$1,610,938,630	$199,008	4.4	Relatively Moderate	Relatively Moderate	Very Low	Relatively High
Sedgwick	10302	9,209	$1,879,284,399	$3,397,216	31.8	Relatively Moderate	Relatively High	Relatively Low	Relatively High
Sedgwick	10400	2,210	$603,749,364	$12,541,328	73.1	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	10500	4,578	$1,363,769,386	$15,083,133	74.2	Relatively Moderate	Relatively Moderate	Very Low	Relatively High
Sedgwick	10600	4,227	$1,319,771,414	$14,772,824	108.4	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High

Table C1: FEMA NRI Census Tract General Data

County	Census Tract	Population	Building Value	Agricultural Value	Area	All Hazard Risk Rating	All Hazard EAL	Social Vulnerability Rating	Community Resilience Rating
Sedgwick	10700	3,408	$963,734,837	$17,945,285	109.5	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Sedgwick	10801	2,808	$553,825,123	$0	1.4	Relatively Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	10802	2,996	$1,217,605,171	$2,345	1.7	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High
Sedgwick	10900	3,781	$835,672,258	$0	1.3	Relatively Low	Relatively Moderate	Very Low	Relatively High
Sumner	962100	4,739	$1,016,934,817	$11,270,476	89.0	Relatively High	Relatively High	Relatively High	Relatively High
Sumner	962200	4,834	$1,166,857,127	$53,390,942	376.7	Relatively High	Relatively High	Relatively Moderate	Relatively High
Sumner	962300	2,429	$908,231,000	$62,737,163	423.0	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High
Sumner	962400	4,264	$648,554,550	$4,219,993	35.6	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Sumner	962500	3,905	$1,034,788,722	$2,665,681	23.8	Relatively High	Relatively Moderate	Relatively High	Relatively High
Sumner	962600	2,188	$538,850,963	$44,249,839	248.8	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High

Source: FEMA NRI

Table C2: FEMA NRI Identified Hazard Ratings

County	Census Tract	Drought EAL	Drought Risk Rating	Earthquake EAL	Earthquake Risk Rating	Cold Wave EAL	Cold Wave Risk Rating	Heatwave EAL	Heatwave Risk Rating
Butler	20101	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Butler	20102	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Butler	20204	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Butler	20205	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Butler	20206	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
Butler	20207	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
Butler	20208	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
Butler	20209	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively Moderate
Butler	20210	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
Butler	20300	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Butler	20400	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Very Low	Very Low	Relatively High	Relatively High
Butler	20500	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Relatively Low	Very High	Very High
Butler	20601	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Butler	20602	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Butler	20700	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
Butler	20800	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
Butler	20901	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Butler	20902	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
Butler	20903	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Cowley	493100	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Cowley	493200	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Cowley	493300	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Cowley	493400	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Cowley	493500	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	493600	No Expected Annual Losses	No Rating	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	493700	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively High	Very High
Cowley	493800	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	493900	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Cowley	494000	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Cowley	494100	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Harper	961600	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Harper	961700	Relatively High	Relatively High	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Harper	961800	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Harvey	30100	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Very High	Very High
Harvey	30200	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Very High	Very High
Harvey	30300	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Very High	Very High
Harvey	30400	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Very High	Very High
Harvey	30500	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Harvey	30601	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Low	Relatively Low	Very High	Relatively High
Harvey	30602	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Low	Relatively Low	Very High	Very High
Kingman	961100	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Kingman	961200	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Kingman	961300	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Marion	489500	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Marion	489600	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Very High	Relatively High
Marion	489700	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Marion	489800	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Very High	Very High

Table C2: FEMA NRI Identified Hazard Ratings

County	Census Tract	Drought EAL	Drought Risk Rating	Earthquake EAL	Earthquake Risk Rating	Cold Wave EAL	Cold Wave Risk Rating	Heatwave EAL	Heatwave Risk Rating
McPherson	788100	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
McPherson	788200	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Very High	Relatively High
McPherson	788300	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
McPherson	788400	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Very High	Very High
McPherson	788500	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
McPherson	788600	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Very High	Very High
McPherson	788700	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Very High	Very High
Reno	100	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
Reno	200	No Expected Annual Losses	No Rating	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	300	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Low	Very High	Relatively High
Reno	400	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
Reno	500	No Expected Annual Losses	No Rating	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	600	No Expected Annual Losses	No Rating	Very Low	Relatively Low	Very Low	Relatively Low	Relatively High	Relatively High
Reno	700	No Expected Annual Losses	No Rating	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	800	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	1000	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively High	Relatively High
Reno	1100	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	1200	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	1300	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	1400	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	1500	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	1600	Relatively Moderate	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Reno	1700	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	1800	Relatively Moderate	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Rice	967100	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively Moderate
Rice	967200	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Rice	967300	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Sedgwick	100	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	200	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	300	No Expected Annual Losses	No Rating	Very Low	Relatively Low	Very Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	400	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	600	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	700	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	800	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	900	No Expected Annual Losses	No Rating	Very Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	1000	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	1100	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	1400	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	1500	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	1800	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	1900	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	2000	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Low
Sedgwick	2200	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Low
Sedgwick	2300	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	2400	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	2600	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	2700	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate

Table C2: FEMA NRI Identified Hazard Ratings

County	Census Tract	Drought EAL	Drought Risk Rating	Earthquake EAL	Earthquake Risk Rating	Cold Wave EAL	Cold Wave Risk Rating	Heatwave EAL	Heatwave Risk Rating
Sedgwick	2800	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	2900	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	3000	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	3100	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	3200	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	3400	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	3500	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	3600	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	3700	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	3800	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	3900	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	4000	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	4301	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Very Low	Very Low	Relatively High	Relatively Moderate
Sedgwick	4302	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	5100	No Expected Annual Losses	No Rating	Very Low	Relatively Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	5200	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	5300	No Expected Annual Losses	No Rating	Very Low	Very Low	Relatively Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	5401	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	5402	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	5501	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	5502	Very Low	Very Low	Very Low	Very Low	Relatively Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	5600	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	5700	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	5800	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	5900	No Expected Annual Losses	No Rating	Very Low	Relatively Low	Very Low	Relatively Low	Relatively Moderate	Relatively High
Sedgwick	6000	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	6100	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	6200	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	6300	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	6400	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	6500	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	6600	Very Low	Very Low	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	6700	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	6800	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	6900	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7000	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7101	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7102	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7201	Very Low	Very Low	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7205	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7206	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7207	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7208	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	7301	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7302	No Expected Annual Losses	No Rating	Relatively Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7500	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7600	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate

Table C2: FEMA NRI Identified Hazard Ratings

County	Census Tract	Drought EAL	Drought Risk Rating	Earthquake EAL	Earthquake Risk Rating	Cold Wave EAL	Cold Wave Risk Rating	Heatwave EAL	Heatwave Risk Rating
Sedgwick	7701	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	7702	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	7800	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	8000	Very Low	Very Low	Very Low	Very Low	Relatively Low	Very Low	Relatively High	Relatively Moderate
Sedgwick	8100	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Very Low	Very Low	Relatively High	Relatively Moderate
Sedgwick	8200	No Expected Annual Losses	No Rating	Very Low	Relatively Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	8300	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	8400	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	8500	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	8600	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	8700	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	8800	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	8900	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9000	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9100	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	9200	Very Low	Very Low	Relatively Low	Relatively Low	Very Low	Very Low	Relatively High	Relatively Moderate
Sedgwick	9301	No Expected Annual Losses	No Rating	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	9303	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9304	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9401	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9402	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9504	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9505	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9506	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9507	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	9508	Relatively Low	Relatively Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9509	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	9510	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9511	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	9512	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9513	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9514	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9515	Very Low	Very Low	Relatively Low	Very Low	Relatively Low	Very Low	Relatively High	Relatively Moderate
Sedgwick	9603	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9604	Relatively Low	Relatively Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9605	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	9700	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	9801	No Expected Annual Losses	No Rating	Very Low	Relatively Low	Very Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	9803	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9804	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9901	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	9902	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	10001	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	10002	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	10003	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Low
Sedgwick	10005	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	10006	Relatively Low	Relatively Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate

Table C2: FEMA NRI Identified Hazard Ratings

County	Census Tract	Drought EAL	Drought Risk Rating	Earthquake EAL	Earthquake Risk Rating	Cold Wave EAL	Cold Wave Risk Rating	Heatwave EAL	Heatwave Risk Rating
Sedgwick	10007	Relatively Low	Relatively Low	Relatively Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	10106	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	10107	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	10108	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Low
Sedgwick	10109	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	10110	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Low
Sedgwick	10111	Very Low	Very Low	Very Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	10113	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Very Low	Relatively High	Relatively Moderate
Sedgwick	10115	Very Low	Very Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	10116	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	10201	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	10202	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	10301	Very Low	Very Low	Relatively Low	Very Low	Relatively Low	Relatively Low	Relatively High	Relatively Moderate
Sedgwick	10302	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Sedgwick	10400	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	10500	Relatively Moderate	Relatively Moderate	Relatively Low	Very Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	10600	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	10700	Relatively Moderate	Relatively Moderate	Relatively Low	Very Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate
Sedgwick	10801	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	10802	Very Low	Very Low	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sedgwick	10900	No Expected Annual Losses	No Rating	Very Low	Very Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate
Sumner	962100	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Sumner	962200	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively High
Sumner	962300	Relatively Moderate	Relatively Moderate	Relatively Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Sumner	962400	Relatively Low	Relatively Low	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Sumner	962500	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High
Sumner	962600	Relatively Moderate	Relatively Moderate	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High

Source: FEMA NRI

Table C3: FEMA NRI Identified Hazard Ratings

County	Census Tract	Riverine Flood EAL	Riverine Flood Risk Rating	Hail EAL	Hail Risk Rating	Lightning EAL	Lightning Risk Rating	Strong Wind EAL	Strong Wind Risk Rating
Butler	20101	Relatively High	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low	Very High	Relatively High
Butler	20102	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High
Butler	20204	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Very High	Relatively High
Butler	20205	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Butler	20206	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Butler	20207	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Very High	Relatively High
Butler	20208	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Very High	Very High
Butler	20209	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High
Butler	20210	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Very High	Relatively High
Butler	20300	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Butler	20400	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Low	Relatively Low	Very High	Very High
Butler	20500	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Butler	20601	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Butler	20602	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Butler	20700	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Butler	20800	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Butler	20901	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Very High	Relatively High
Butler	20902	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Butler	20903	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	493100	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	493200	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	493300	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	493400	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	493500	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate	Relatively High	Relatively High	Very High	Very High
Cowley	493600	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Very High
Cowley	493700	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	493800	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	493900	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Cowley	494000	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Cowley	494100	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively High	Relatively High
Harper	961600	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Harper	961700	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Harper	961800	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Harvey	30100	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High
Harvey	30200	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High
Harvey	30300	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High
Harvey	30400	Relatively Moderate	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High
Harvey	30500	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively High	Very High	Very High	Very High
Harvey	30601	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High	Relatively High	Relatively High
Harvey	30602	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High	Relatively High	Relatively High
Kingman	961100	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Kingman	961200	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Very High
Kingman	961300	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Marion	489500	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Marion	489600	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High
Marion	489700	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High
Marion	489800	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively High	Relatively High	Very High	Very High

Table C3: FEMA NRI Identified Hazard Ratings

County	Census Tract	Riverine Flood EAL	Riverine Flood Risk Rating	Hail EAL	Hail Risk Rating	Lightning EAL	Lightning Risk Rating	Strong Wind EAL	Strong Wind Risk Rating
McPherson	788100	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High
McPherson	788200	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Very High
McPherson	788300	Relatively Low	Relatively Low	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High
McPherson	788400	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High
McPherson	788500	Very Low	Very Low	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High	Relatively High
McPherson	788600	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High
McPherson	788700	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively High	Relatively High	Very High	Very High
Reno	100	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	200	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	300	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	400	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Relatively High
Reno	500	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	600	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	700	Very Low	Very Low	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	800	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	1000	No Expected Annual Losses	No Rating	Relatively Low	Relatively Low	Relatively Low	Relatively Low	Very High	Very High
Reno	1100	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	1200	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	1300	Relatively High	Relatively High	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	1400	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	1500	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Very High
Reno	1600	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High
Reno	1700	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Very High	Very High
Reno	1800	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Very High	Very High
Rice	967100	Very Low	Very Low	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High
Rice	967200	No Expected Annual Losses	No Rating	Very High	Very High	Relatively High	Relatively High	Very High	Very High
Rice	967300	Very Low	Very Low	Very High	Very High	Relatively High	Relatively High	Very High	Very High
Sedgwick	100	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Sedgwick	200	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	300	Very Low	Very Low	Relatively High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	400	Relatively Low	Relatively Low	Very High	Very High	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	600	Relatively Low	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	700	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively High	Relatively Low	Relatively Moderate
Sedgwick	800	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	900	Very Low	Very Low	Very High	Very High	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	1000	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Sedgwick	1100	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Sedgwick	1400	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	1500	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	1800	Relatively Low	Relatively Low	Relatively High	Very High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Sedgwick	1900	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	2000	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low
Sedgwick	2200	No Expected Annual Losses	No Rating	Relatively High	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low	Relatively Low
Sedgwick	2300	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	2400	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Sedgwick	2600	Very Low	Very Low	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively Low	Relatively Low
Sedgwick	2700	Very Low	Very Low	Relatively High	Relatively High	Relatively Low	Relatively Moderate	Relatively Low	Relatively Low

Table C3: FEMA NRI Identified Hazard Ratings

County	Census Tract	Riverine Flood EAL	Riverine Flood Risk Rating	Hail EAL	Hail Risk Rating	Lightning EAL	Lightning Risk Rating	Strong Wind EAL	Strong Wind Risk Rating
Sedgwick	2800	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Sedgwick	2900	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	3000	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	3100	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	3200	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	3400	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	3500	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	3600	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Sedgwick	3700	No Expected Annual Losses	No Rating	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	3800	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	3900	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	4000	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	4301	No Expected Annual Losses	No Rating	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	4302	Relatively Low	Relatively Low	Very High	Very High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	5100	Relatively Low	Relatively Low	Relatively High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	5200	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	5300	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	5401	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	5402	Relatively Low	Relatively Low	Relatively High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	5501	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	5502	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	5600	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	5700	Relatively Low	Relatively Low	Relatively High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	5800	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	5900	Relatively Low	Relatively Low	Relatively High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	6000	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	6100	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Sedgwick	6200	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate
Sedgwick	6300	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	6400	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low
Sedgwick	6500	Very Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively High	Relatively Low	Relatively Moderate
Sedgwick	6600	Very Low	Very Low	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	6700	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	6800	Very Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	6900	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	7000	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively High	Relatively Low	Relatively Moderate
Sedgwick	7101	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	7102	Very Low	Very Low	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	7201	Very Low	Very Low	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	7205	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	7206	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	7207	Relatively Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	7208	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	7301	Relatively Low	Relatively Low	Very High	Very High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	7302	Relatively Low	Relatively Low	Very High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	7500	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	7600	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate

Table C3: FEMA NRI Identified Hazard Ratings

County	Census Tract	Riverine Flood EAL	Riverine Flood Risk Rating	Hail EAL	Hail Risk Rating	Lightning EAL	Lightning Risk Rating	Strong Wind EAL	Strong Wind Risk Rating
Sedgwick	7701	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	7702	Very Low	Very Low	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	7800	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	8000	Relatively Low	Relatively Low	Very High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	8100	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	8200	Relatively Low	Relatively Low	Relatively High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	8300	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	8400	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	8500	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	8600	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	8700	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	8800	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	8900	Relatively Low	Relatively Low	Relatively High	Very High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	9000	No Expected Annual Losses	No Rating	Very High	Very High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	9100	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively High
Sedgwick	9200	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	9301	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	9303	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	9304	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	9401	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	9402	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	9504	Relatively Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	9505	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	9506	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	9507	Relatively Low	Relatively Low	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	9508	Relatively Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	9509	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	9510	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	9511	Relatively Low	Relatively Low	Very High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	9512	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	9513	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	9514	Relatively Low	Relatively Low	Very High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	9515	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	9603	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	9604	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	9605	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	9700	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	9801	Relatively Low	Relatively Low	Relatively High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	9803	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	9804	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	9901	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	9902	Relatively Low	Relatively Low	Very High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	10001	Relatively Low	Relatively Low	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	10002	Relatively Low	Relatively Low	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	10003	No Expected Annual Losses	No Rating	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low
Sedgwick	10005	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	10006	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low

Table C3: FEMA NRI Identified Hazard Ratings

County	Census Tract	Riverine Flood EAL	Riverine Flood Risk Rating	Hail EAL	Hail Risk Rating	Lightning EAL	Lightning Risk Rating	Strong Wind EAL	Strong Wind Risk Rating
Sedgwick	10007	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	10106	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	10107	No Expected Annual Losses	No Rating	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sedgwick	10108	Relatively Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low
Sedgwick	10109	Relatively Low	Relatively Low	Relatively High	Very High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	10110	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Relatively Low	Relatively Low
Sedgwick	10111	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	10113	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	10115	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively High	Relatively High	Relatively Moderate
Sedgwick	10116	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	10201	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	10202	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	10301	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	10302	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	10400	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	10500	Relatively Low	Relatively Low	Very High	Very High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	10600	Relatively Low	Relatively Low	Very High	Very High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	10700	Relatively Low	Relatively Low	Very High	Very High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	10801	Very Low	Very Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low
Sedgwick	10802	Relatively Low	Relatively Low	Very High	Very High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate
Sedgwick	10900	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low
Sumner	962100	Relatively High	Relatively High	Relatively High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High
Sumner	962200	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High
Sumner	962300	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High
Sumner	962400	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High
Sumner	962500	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High
Sumner	962600	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Low	Relatively Low	Very High	Very High

Source: FEMA NRI

Table C4: FEMA NRI Identified Hazard Ratings

County	Census Tract	Ice Storm EAL	Ice Storm Risk Rating	Winter Weather EAL	Winter Weather Rating	Tornado EAL	Tornado Risk Rating	Wildfire EAL	Wildfire Risk Rating
Butler	20101	Relatively High	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High	Relatively High	Relatively High
Butler	20102	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively High	Relatively High
Butler	20204	Relatively High	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Butler	20205	Relatively High	Relatively High	Very High	Very High	Very High	Very High	Relatively High	Relatively High
Butler	20206	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Butler	20207	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Relatively High	Relatively Low	Relatively Low
Butler	20208	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Relatively High	Relatively Low	Relatively Low
Butler	20209	Relatively Moderate	Relatively Moderate	Relatively High	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate
Butler	20210	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Relatively High	Relatively Moderate	Relatively Moderate
Butler	20300	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Butler	20400	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Low	Relatively Low
Butler	20500	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Butler	20601	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Relatively High	Relatively High	Relatively Moderate
Butler	20602	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Butler	20700	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Butler	20800	Relatively Moderate	Relatively High	Relatively High	Relatively High	Relatively High	Relatively High	Relatively Low	Relatively Low
Butler	20901	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Relatively High	Relatively High	Relatively High
Butler	20902	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Relatively High	Relatively Moderate	Relatively Moderate
Butler	20903	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Relatively High	Relatively Moderate	Relatively Moderate
Cowley	493100	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very High	Very High	Relatively High	Relatively High
Cowley	493200	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Cowley	493300	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Cowley	493400	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Cowley	493500	Relatively Moderate	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Cowley	493600	Relatively Moderate	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Cowley	493700	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Cowley	493800	Relatively Moderate	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Cowley	493900	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Cowley	494000	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Cowley	494100	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Low	Relatively Low
Harper	961600	Relatively Moderate	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Harper	961700	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Harper	961800	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Harvey	30100	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Low	Relatively Low
Harvey	30200	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Low	Relatively Low
Harvey	30300	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Low	Relatively Low
Harvey	30400	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Low	Relatively Low
Harvey	30500	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Moderate	Relatively Moderate
Harvey	30601	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Harvey	30602	Relatively High	Relatively High	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Kingman	961100	Very High	Very High	Relatively High	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Moderate
Kingman	961200	Very High	Very High	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Kingman	961300	Very High	Very High	Relatively High	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Moderate
Marion	489500	Very High	Very High	Very High	Very High	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Marion	489600	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Moderate	Relatively Low
Marion	489700	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Moderate	Relatively Moderate
Marion	489800	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Moderate	Relatively Moderate

Table C4: FEMA NRI Identified Hazard Ratings

County	Census Tract	Ice Storm EAL	Ice Storm Risk Rating	Winter Weather EAL	Winter Weather Rating	Tornado EAL	Tornado Risk Rating	Wildfire EAL	Wildfire Risk Rating
McPherson	788100	Very High	Very High	Relatively High	Relatively High	Very High	Relatively High	Relatively Moderate	Relatively Moderate
McPherson	788200	Very High	Very High	Very High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
McPherson	788300	Very High	Very High	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
McPherson	788400	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Low	Relatively Low
McPherson	788500	Very High	Relatively High	Relatively High	Relatively High	Relatively High	Relatively High	Very Low	Very Low
McPherson	788600	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Low	Relatively Low
McPherson	788700	Very High	Very High	Very High	Very High	Very High	Very High	Relatively Low	Relatively Low
Reno	100	Very High	Very High	Relatively High	Relatively High	Very High	Very High	Relatively High	Relatively High
Reno	200	Very High	Very High	Relatively High	Relatively High	Very High	Very High	No Expected Annual Losses	No Rating
Reno	300	Very High	Very High	Relatively High	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Moderate
Reno	400	Very High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Low	Relatively Low
Reno	500	Very High	Very High	Relatively High	Relatively Moderate	Very High	Very High	Very Low	Very Low
Reno	600	Very High	Very High	Relatively High	Relatively High	Very High	Very High	No Expected Annual Losses	No Rating
Reno	700	Very High	Very High	Relatively Moderate	Relatively High	Very High	Very High	Very Low	Very Low
Reno	800	Very High	Very High	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Reno	1000	Very High	Very High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Reno	1100	Very High	Very High	Relatively High	Relatively High	Very High	Very High	Very High	Very High
Reno	1200	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively High	Relatively High
Reno	1300	Very High	Very High	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Reno	1400	Very High	Very High	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Reno	1500	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively High	Relatively High
Reno	1600	Very High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Reno	1700	Very High	Very High	Relatively High	Relatively Moderate	Very High	Relatively High	Relatively High	Relatively High
Reno	1800	Very High	Very High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate
Rice	967100	Very High	Very High	Relatively High	Relatively High	Very High	Very High	Relatively Moderate	Relatively Moderate
Rice	967200	Very High	Very High	Relatively High	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Rice	967300	Very High	Very High	Relatively High	Relatively High	Very High	Very High	Relatively High	Relatively High
Sedgwick	100	Relatively High	Relatively High	Relatively Low	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	200	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	300	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Very Low	Very Low
Sedgwick	400	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Very Low	Very Low
Sedgwick	600	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively High	Very Low	Very Low
Sedgwick	700	Relatively High	Relatively High	Relatively Low	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	800	Relatively Moderate	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	900	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Very Low	Very Low
Sedgwick	1000	Relatively High	Relatively High	Relatively Low	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	1100	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	1400	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	1500	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	1800	Relatively Moderate	Relatively High	Relatively Low	Relatively Moderate	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	1900	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	2000	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively Moderate	Very Low	Very Low
Sedgwick	2200	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very Low	Very Low
Sedgwick	2300	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively Moderate	Very Low	Very Low
Sedgwick	2400	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Moderate	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	2600	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	No Expected Annual Losses	No Rating
Sedgwick	2700	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively High	No Expected Annual Losses	No Rating

Table C4: FEMA NRI Identified Hazard Ratings

County	Census Tract	Ice Storm EAL	Ice Storm Risk Rating	Winter Weather EAL	Winter Weather Rating	Tornado EAL	Tornado Risk Rating	Wildfire EAL	Wildfire Risk Rating
Sedgwick	2800	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	2900	Relatively Moderate	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	3000	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	3100	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	3200	Relatively Moderate	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	3400	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	3500	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	3600	Relatively High	Relatively High	Relatively Low	Relatively Moderate	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	3700	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively High	Very Low	Very Low
Sedgwick	3800	Relatively Moderate	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	3900	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Very Low	Very Low
Sedgwick	4000	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Very Low	Very Low
Sedgwick	4301	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	No Expected Annual Losses	No Rating
Sedgwick	4302	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	5100	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Very Low	Very Low
Sedgwick	5200	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Very Low	Very Low
Sedgwick	5300	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Very Low	Very Low
Sedgwick	5401	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Low	Relatively Low
Sedgwick	5402	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Very Low	Very Low
Sedgwick	5501	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	5502	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Low	Relatively Low
Sedgwick	5600	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	5700	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Very Low	Relatively Low
Sedgwick	5800	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Relatively Low	Relatively Low
Sedgwick	5900	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	6000	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Very Low	Very Low
Sedgwick	6100	Relatively High	Relatively High	Relatively Low	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	6200	Relatively High	Relatively High	Relatively Low	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	6300	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	6400	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Very Low	Very Low
Sedgwick	6500	Relatively High	Relatively High	Relatively Low	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	6600	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	6700	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	6800	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	No Expected Annual Losses	No Rating
Sedgwick	6900	Relatively Moderate	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	7000	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	No Expected Annual Losses	No Rating
Sedgwick	7101	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	7102	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	7201	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	7205	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	7206	Relatively High	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	No Expected Annual Losses	No Rating
Sedgwick	7207	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Relatively Low	Relatively Low
Sedgwick	7208	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	7301	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Low	Very Low
Sedgwick	7302	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Very Low	Very Low
Sedgwick	7500	Relatively Moderate	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	7600	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low

Table C4: FEMA NRI Identified Hazard Ratings

County	Census Tract	Ice Storm EAL	Ice Storm Risk Rating	Winter Weather EAL	Winter Weather Rating	Tornado EAL	Tornado Risk Rating	Wildfire EAL	Wildfire Risk Rating
Sedgwick	7701	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	7702	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Very Low	Very Low
Sedgwick	7800	Relatively Moderate	Relatively High	Relatively Low	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	8000	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	8100	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	8200	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	8300	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Relatively Low	Relatively Low
Sedgwick	8400	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	8500	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	8600	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	8700	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	No Expected Annual Losses	No Rating
Sedgwick	8800	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Relatively Low	Relatively Low
Sedgwick	8900	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Very Low	Very Low
Sedgwick	9000	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Relatively Low
Sedgwick	9100	Relatively High	Relatively High	Relatively Moderate	Relatively High	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	9200	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	9301	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	9303	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Relatively Low
Sedgwick	9304	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	9401	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	9402	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Low	Relatively Low
Sedgwick	9504	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	9505	Relatively High	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	9506	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	9507	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	9508	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Low	Relatively Low
Sedgwick	9509	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Low
Sedgwick	9510	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Very High	Relatively High	Relatively Low	Relatively Low
Sedgwick	9511	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	9512	Relatively High	Relatively High	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	9513	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Low	Relatively Low
Sedgwick	9514	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Low	Relatively Low
Sedgwick	9515	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Very Low	Very Low
Sedgwick	9603	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Low	Relatively Low
Sedgwick	9604	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	9605	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	9700	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	9801	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Very Low	Relatively Low
Sedgwick	9803	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Low	Relatively Low
Sedgwick	9804	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	9901	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	9902	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Low	Relatively Low
Sedgwick	10001	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Moderate	Relatively Low
Sedgwick	10002	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	10003	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively Moderate	Very Low	Very Low
Sedgwick	10005	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Relatively Low	Relatively Low
Sedgwick	10006	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Moderate

Table C4: FEMA NRI Identified Hazard Ratings

County	Census Tract	Ice Storm EAL	Ice Storm Risk Rating	Winter Weather EAL	Winter Weather Rating	Tornado EAL	Tornado Risk Rating	Wildfire EAL	Wildfire Risk Rating
Sedgwick	10007	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Moderate
Sedgwick	10106	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Relatively Low	Relatively Low
Sedgwick	10107	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	10108	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively Moderate	Very Low	Very Low
Sedgwick	10109	Relatively Moderate	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Relatively Low	Relatively Low
Sedgwick	10110	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively Low	Relatively High	Relatively Moderate	Very Low	Very Low
Sedgwick	10111	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	10113	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Moderate
Sedgwick	10115	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Moderate
Sedgwick	10116	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	10201	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Very Low	Very Low
Sedgwick	10202	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Moderate	Relatively Moderate
Sedgwick	10301	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	10302	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sedgwick	10400	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Relatively Low	Relatively Low
Sedgwick	10500	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Low	Relatively Low
Sedgwick	10600	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Moderate	Relatively Moderate
Sedgwick	10700	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Relatively High	Relatively Moderate	Relatively Low
Sedgwick	10801	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively Low	Relatively High	Relatively High	Very Low	Very Low
Sedgwick	10802	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Relatively High	Very High	Relatively Low	Relatively Low
Sedgwick	10900	Relatively High	Relatively Moderate	Relatively Moderate	Relatively Moderate	Relatively High	Relatively High	Very Low	Very Low
Sumner	962100	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sumner	962200	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sumner	962300	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sumner	962400	Relatively High	Relatively High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sumner	962500	Very High	Very High	Relatively Moderate	Relatively Moderate	Very High	Very High	Relatively Low	Relatively Low
Sumner	962600	Relatively High	Relatively High	Relatively Low	Relatively Low	Relatively High	Relatively High	Relatively Low	Relatively Low

Source: FEMA NRI

Appendix D – Jurisdictional Hazard Mitigation Actions

Butler County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler County 1	Install generators in county facilities.	All hazards	Butler County Facilities Director	High	1, 3	$10,000 to $50,000 per location	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Butler County 2	Purchase electronic mobile traffic notification signs.	All Hazards	Butler County Emergency Management, Butler County Public Works	Medium	1, 2	$35,000	HMGP, Local budgets	Five years	New
Butler County 3	Conduct a regular tree trimming and tree wire installation program.	All hazards	Butler County Public Works	High	1, 2	$25,000 per occurrence	HMGP, BRIC, Local Budgets	Five years	New
Butler County 4	Conduct agricultural education program on water reduction methods.	Agricultural Infestation, Drought	Butler Co Extension	High	1, 3	Staff Time	Local budgets	Five years	New
Butler County 5	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	Butler Co Extension	High	1, 2	Staff Time and $500	Local budgets	Five years	New
Butler County 6	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Butler Co Emergency Manager	Medium	1, 2, 4	$5,000 per location	HMGP, Jurisdiction budget	Five years	New
Butler County 7	Map all infrastructure and facilities within dam inundation areas.	Dam/Levee Failure	Butler Co Emergency Manager	Medium	1, 2, 4	$10,000 per location	HMGP, Jurisdiction budget	Five years	New
Butler County 8	Conduct a Xeriscaping program for all jurisdictional owned facilities	Drought	Butler County Facilities Director	Low	1, 2	$5,000 - $50,000 per location	HMGP, BRIC, Local budgets	Five years	New

Butler County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler County 9	Develop and recommend building code updates on all jurisdictional facilities.	Earthquake, Severe Storms, Tornado	Butler Co Community Development	Low	1, 2	Staff time	Local budgets	Continuous	On-going
Butler County 10	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	Butler County Facilities Director	Low	1, 2	$25,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Butler County 11	Conduct a flood insurance awareness program.	Flooding	Butler Co Flood Plain Administrator	High	1, 3	Staff Time	Local budgets	Five years	New
Butler County 12	Educate residents about the dangers of floods and flood prevention.	Flooding	Butler Co Flood Plain Administrator	Medium	3	$1000	Local, state, federal	Continuous	On-going
Butler County 13	Develop and recommend amendments to the existing Flood Damage Protection Resolution to adopt higher regulatory standards.	Flooding	Butler Co Flood Plain Administrator	Medium	1, 2	Staff time	Local, state, federal	Continuous	On-going
Butler County 14	Commit to continued participation and compliance with the NFIP	Flooding	Butler Co Flood Plain Administrator	Medium	1, 2	Staff time	Local, state, federal	Continuous	On-going
Butler County 15	Research, design and recommend an appropriate stream buffer ordinance to further protect the jurisdiction's water resources and to limit future flood damages adjacent to major water ways.	Flooding	Butler Co Flood Plain Administrator	Medium	1, 2	Staff time	Local, state, federal	Pending funding	On-going

Butler County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler County 16	Perform drainage improvements at designated locations by upgrading culverts.	Flooding	Butler County Public Works	Medium	1,2	$150 – 175,000 per location	HMGP, FMA, local budgets	Five years	Pending funding
Butler County 17	Procure permanent signage to warn of flood hazard areas.	Flooding	Butler Co Flood Plain Administrator	Medium	1, 2	Location dependent	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Butler County 18	Install surge protectors in all jurisdictional facilities.	Severe Weather	Butler County Facilities Director	Medium	1, 2	$10,000 per location	HMGP, BRIC, Local budgets	Five years	New
Butler County 19	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	Butler County Facilities Director	Medium	1, 2	$50,000 per location	HMGP, BRIC, Local budgets	Five years	New
Butler County 20	Insulate water lines in all jurisdictional facilities.	Winter Storm	Butler County Building Department	Low	1, 2	$10,000 - $50,000 per location	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Butler County 21	Create defensible space buffers at all critical facilities	Wildfire	Woodson County Public Works Director	High	1, 2	Facility size dependent	HMGP, BRIC, Jurisdiction budget	As required	New
Butler County 22	Increase public and fire department training on wildland-urban interface fire prevention.	Wildfire	Emergency Management Coordinator	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
Butler County 23	Upgrade cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Butler County IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New

Butler County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler County 24	Provide hazardous materials response training to first responders and emergency management staff.	Hazardous Materials Event	Butler County LEPC	High	1, 2	$500 per trainee	HMGP, HMEP, Local budgets	As required	New
Butler County 25	Identify and map all structurally deficient bridges.	Infrastructure Failure	Butler County Public Works	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Butler County 26	Conduct active shooter drills and exercises for all county personnel.	Terrorism	Butler County Sheriff's Office	Low	1, 2	Data size dependent	Local budgets	Five years	New
Butler County 27	Purchase and install new epidemiological tracking software.	Transmissible Disease	Butler County Health Department	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New
Butler County 28	Upgrade and enhance county's sirens	All hazards	Butler County Emergency Management	High	1, 2	Staff Time	Local budgets	Five years	Carried over due to lack of funding
Butler County 29	Construct community safe rooms where needed to required building standards	Severe Storms, Tornado	Butler County Emergency Manager	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Andover Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Andover 1	Purchase and install critical facility backup generators.	All hazards	Andover Administration	High	1, 2	$250,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Andover 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Andover Administration	High	1, 2	$55,000 annually	HMGP, Local budgets	As required	New
Andover 3	Continue to promote awareness and compliance with the City's design manual and regulations for post-construction stormwater management required for development or redevelopment of sites larger than one acre.	All hazards	Stormwater Operator	Medium	2,3	$25,000	HMGP, BRIC, Storm water fees	As grant funding comes available	On-going
Andover 4	Require the successful completion of NIMS training for selected employees in all departments.	All Hazards	Emergency Management Director, Human Resource Director	High	1,2,4	$20,000	Local budgets	As grant funding comes available	Carried over due to lack of funding
Andover 5	Acquire a bank of portable radios, chargers, and spare batteries for use in hazardous situations by volunteers	All hazards	Police Chief, Communications Director	High	1,2,4	$80,000	HMGP, Local budgets	As grant funding comes available	Carried over due to lack of funding
Andover 6	Acquire mobile surveillance and deterrence towers.	All hazards	Police Chief, Communications Director	Low	1,2	$100,000	HMGP, Local budgets	As grant funding comes available	Carried over due to lack of funding
Andover 7	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Andover Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Andover Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Andover 8	Conduct a personal water use education program.	Drought	Andover Public Works	Low	3	Staff time & $3,000	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Andover 9	Develop and construct agreements for secondary water sources that may be used during drought conditions.	Drought	Director of Public Works, City Engineer	High	1,2,4	$15,000,000	HMGP, State, Local budgets	As grant funding comes available	Carried over due to lack of funding
Andover 10	Continue to meet requirements of the NFIP.	Flood	Andover NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Andover 11	Construct rainwater retention/detention ponds at strategic locations.	Flood	Andover Stormwater Utility	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Andover 12	Clean and repair drainage ditches to maintain capacity.	Flood	Andover Public Works	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Andover 13	Continue to encourage 100% compliance with flood management and building codes.	Flood	Director of Public Works, Building Official, City Engineer	Medium	1,2	$20,000	Local budgets	Continuous	On-going
Andover 14	Identify and evaluate areas in need of storm drainage improvements inside city limits	Flood	Director of Public Works, City Engineer	Medium	1,2	$30,000	HMGP, State, Local budgets	Continuous	Carried over due to lack of funding
Andover 15	Enhance/build drainage culverts, clean, deepen ditches, and enhance sewer drainage. Develop and construct agreements for secondary water sources that may be used during drought conditions.	Flood	Director of Public Works, City Engineer, Stormwater Operator	Medium	1,2	$500,000	HMGP, State, Local budgets	As grant funding comes available	Carried over due to lack of funding

Andover Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Andover 16	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Andover Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New
Andover 17	Identify and pursue incentives for contractors to include safe room construction in new residential, commercial, and public buildings.	Severe Weather, Tornado	Building Official	Medium	1,2	$500,000	HMGP, State, Local budgets	Continuous	On-going
Andover 18	Continue to require all new construction to utilize underground utilities, and pursue opportunities for the burying of existing aerial utility lines.	Severe Weather, Tornado, Utility Failure	Director of Public Works, Director of Community Development	High	1,2	$15,000,000	HMGP, State, Local budgets	Continuous	Carried over due to lack of funding
Andover 19	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Andover Public Works	Low	1, 2	$100,000 per location	Facility size dependent	Five years	New
Andover 20	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Andover Police	Low	4	Staff Time	Local budgets	Five years	New
Andover 21	Build additional 24-hour accessible storm shelter in 13th Steet Park.	Tornado	Director of Public Works	Medium	1,2	$1,000,000	HMGP, State funding	As grant funding comes available	Carried over due to lack of funding
Andover 22	Implement WUI trainings to increase the general, tactical, and safety knowledge of anyone living in, or responding to, fires in the WUI.	Wildfire	Fire Chief, Kansas Forest Service	Medium	1, 2, 3	$50 per student per training	Kansas Forest Service, State, Federal	On-going	Carried over due to lack of funding
Andover 23	Create defensible space buffers at all critical facilities	Wildfire	Woodson County Public Works Director	High	1, 2	Facility size dependent	HMGP, BRIC, Jurisdiction budget	As required	New

Andover Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Andover 24	Identify and prioritize locations for fuel reduction in wildfire risk areas and invasive new growth cedar plots.	Wildfire	Fire Chief, Kansas Forest Service, Board of Trustees, County and City Public Works	Medium	1, 2	$5,000	Kansas Forest Service, Federal WUI grants	On-going	Carried over due to lack of funding
Andover 25	Brush and vegetation mitigation on and adjacent to the Red Bud Trail, A Rails to Trails project	Wildfire	Fire Chief, Kansas Forest Service, Board of Trustees, County and City Public Works	Medium	1,2,3	$100 an acre for hazardous	Kansas Forest Service, Federal WUI grants., Americor potential project	Continuous	Carried over due to lack of funding
Andover 26	Identify, record, and communicate remote static water supply access points in all fire districts	Wildfire	Fire Chief, Kansas Forest Service, Board of Trustees, County and City Public Works	Medium	1,2	$750-$1,000 per site	Kansas Forest Service, Federal WUI grants. Private land owners, private insurance	Continuous	Carried over due to lack of funding
Andover 27	Develop improvements in vehicle access and water accessibility (dry hydrants, fixed / portable pumps	Wildfire	Fire Chief, Kansas Forest Service, Board of Trustees, County and City Public Works, BCEM, and BC911	Medium	1,2	$1,500 - $10,000 per site	Kansas Forest Service, Federal WUI grants. Private land owners, private insurance	Continuous	Carried over due to lack of funding

Andover Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Andover 27	Identify and pursue incentives for contractors to include sprinklers in new residential, commercial, and public buildings.	Wildfire	Fire Chief	Medium	1,2	$500,000	HMGP, BRIC	As grant funding comes available	Carried over due to lack of funding
Andover 28	Create a community wildfire protection plan	Wildfire	Andover Fire Chief & Emergency Medical Director	High	1,2,3,4	$50,000	HMGP, Local budgets & BRIC	Three years	New
Andover 29	Educational workshops for homeowners' associations and/or rural communities to provide homeowners with property in the wildland urban interface and New Growth Cedar forest information on steps they can take to defend their property from wildfire. Firewise program adapted to local fuel conditions and topography and Ready Set Go as examples	Wildfire	Fire Chief, Kansas Forest Service	Medium	1, 2, 3	$1,000 per workshop	Kansas Forest Service and Federal Grants, Local insurance company support	On-going	Beginning in 1st QTR 2024
Andover 30	Reduce hazardous fuels in prioritized wildfire risk areas and invasive new growth cedar plots.	Wildfire	Fire Chief, Kansas Forest	Medium	1,2	$100 an acre for hazardous	Kansas Forest	On-going	Carried over due to lack of funding

Augusta Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Augusta-1	Continue to identify critical areas with limited access due to flooding (NFIP)	Flood	City Engineer	Medium	1,2,3	$5,000	Local	2020	On-Going
Augusta-2	Create a Stormwater Master Drainage Plan (NFIP)	Flood	City Manager	High		$250,000	Local, HMGP	2023-2024	GIS work complete
Augusta-3	Encourage 100% compliance with flood management and building codes (NFIP)	Flood	City Inspector	Medium	1,2	Staff Time	None	Repeating	In progress
Augusta-4	Identify and pursue funding for tree trimming	Severe Weather, Tornado, Infrastructure Failure	City Manager	Medium	2,3	$50,000 Annually	HMGP, Local, State, Private	Ongoing	In progress
Augusta-5	Pursue funding and potential locations, and construct tornado shelters/ safe rooms	Tornado	City Manager	High	2	$500,000	HMGP, Local, State	Ongoing	Ongoing
Augusta-6	Upgrade power line infrastructure standards and existing power lines to withstand high winds and ice loading; Replace existing 4,160 Volt System	Severe Weather, Tornado, Infrastructure Failure	Director of Public Utilities	High	3	$15,000,000	HMGP, Local, State	Ongoing	Ongoing
Augusta-7	Bury power lines for new construction	Severe Weather, Tornado, Infrastructure Failure	Director of Public Utilities	High	3	Per Site Basis	HMGP, Local, State	Ongoing	Ongoing

Augusta Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Augusta-8	Rehabilitation of Electric Plant Cooling Towers	Extreme Temperatures, Infrastructure Failure; Severe Winter Storm	Director of Public Utilities	High	1,2	$400,000	Local, HMGP	2023	In Progress
Augusta-9	South Pump Station Discharge Repairs	Infrastructure Failure, Flood	City Manager	High	1,2	$400,000	Local, HMGP	2024-2025	Not started
Augusta-10	City Lake Spillway Weir and Drainage Channel Repairs	Infrastructure Failure, Flood	City Manager	Medium	1	$500,000	Local, HMGP	2024	Not Started
Augusta-11	Industrial Park Stormwater Discharge Channel	Infrastructure Failure, Flood	City Manager	High	1	$500,000	Local, HMGP	2023-2024	Not Started
Augusta-12	HWY 54/400 Stormwater Culvert Replacement	Infrastructure Failure, Flood	City Manager	High	1,2	$3,500,000	Local, HMGP	2024-2025	Not Started
Augusta-13	Replace Storm Sirens	Tornado	City Manager	Medium	1,3,4	$125,000	Local, HMGP	2024	Not Started
Augusta-14	Decommissioning of Electric Plant 1	Infrastructure Failure, Flood	Director of Public Utilities	Medium	1	TBD	Local	2026	Not Started
Augusta-15	Implement Stormwater Utility	Dam and Levee Failure, Infrastructure Failure, Flood	Director of Public Utilities / City Manager	Medium	1,2,3	Staff Time	Local	2024-2025	In Progress

Benton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Benton 1	Purchase and install critical facility backup generators.	All hazards	Benton Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Completed
Benton 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Benton Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	Completed
Benton 3	Institute a tree trimming program near utility lines.	All hazards	Benton Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	In place annual assignment
Benton 4	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Benton Facilities Director	Low	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of interest
Benton 5	Conduct a personal water use education program.	Drought	Benton Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Annual disseminatio n of information
Benton 6	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Benton Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	In place with maintained facility
Benton 7	Continue to participate meet requirements of the NFIP.	Flood	Benton NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Benton 8	Construct rainwater retention/detention ponds at strategic locations.	Flood	Benton Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Completed in 2022/2023
Benton 9	Clean and repair drainage ditches to maintain capacity.	Flood	Benton Administration	Medium	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Continuous

Benton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Benton 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Benton Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	Completed. All roofing is currently metal
Benton 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Benton Administration	Low	4	Staff Time	Local budgets	Five years	New
Benton 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Benton Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Community saferooms established 2023
Benton 13	Create defensible space buffers at all critical facilities	Wildfire	Benton Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Benton 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Benton IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	Completed 2022
Benton 15	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Benton Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Cassoday Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Cassoday 1	Purchase and install critical facility backup generators.	All hazards	Cassoday Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Cassoday 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Cassoday Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Cassoday 3	Institute a tree trimming program near utility lines.	All hazards	Cassoday Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Cassoday 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Cassoday Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Cassoday 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Cassoday Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Cassoday 6	Conduct a personal water use education program.	Drought	Cassoday Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Cassoday 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Cassoday Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Cassoday 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Cassoday Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Cassoday 9	Continue to participate meet requirements of the NFIP.	Flood	Cassoday NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Cassoday Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Cassoday 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Cassoday Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Cassoday 11	Clean and repair drainage ditches to maintain capacity.	Flood	Cassoday Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Cassoday 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Cassoday Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Cassoday 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Cassoday Administration	Low	4	Staff Time	Local budgets	Five years	New
Cassoday 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Cassoday Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Cassoday 15	Create defensible space buffers at all critical facilities	Wildfire	Cassoday Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Cassoday 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Cassoday IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Cassoday 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Cassoday Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Elbing Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Elbing 1	Purchase and install critical facility backup generators.	All hazards	Elbing Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Completed	Completed
Elbing 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Elbing Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Elbing 3	Institute a tree trimming program near utility lines.	All hazards	Elbing Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Elbing 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Elbing Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Elbing 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Elbing Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Elbing 6	Conduct a personal water use education program.	Drought	Elbing Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Elbing 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Elbing Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Elbing 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Elbing Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Elbing 9	Continue to participate meet requirements of the NFIP.	Flood	Elbing NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Elbing Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Elbing 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Elbing Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Elbing 11	Clean and repair drainage ditches to maintain capacity.	Flood	Elbing Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Elbing 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Elbing Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Elbing 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Elbing Administration	Low	4	Staff Time	Local budgets	Five years	New
Elbing 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Elbing Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Elbing 15	Create defensible space buffers at all critical facilities	Wildfire	Elbing Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Elbing 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Elbing IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Elbing 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Elbing Administration	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

El Dorado Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
El Dorado 1	Purchase and install critical facility backup generators.	All hazards	El Dorado Administration	High	1, 2	$250,000 - $500,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
El Dorado 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	El Dorado Administration	High	1, 2	$80,000 annually	HMGP, Local budgets	As required	New
El Dorado 3	Acquire traffic control devices capable of alerting the public to events and hazards, such as evacuations.	All hazards	El Dorado Administration	Medium	1, 2	$150,000	HMGP, Local budgets	Five years	New
El Dorado 4	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	El Dorado Parks Department	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
El Dorado 5	Prepare a drought response plan that includes a public education program.	Drought	El Dorado Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
El Dorado 6	Conduct public education campaign on home seismic retrofits.	Earthquake	El Dorado Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
El Dorado 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	El Dorado Administration	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
El Dorado 8	Continue to participate meet requirements of the NFIP including participating in the Community Rating System (CRS) portion of the program.	Flood	El Dorado NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

El Dorado Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
El Dorado 9	Construct rainwater retention/detention ponds at strategic locations.	Flood	El Dorado Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
El Dorado 10	Clean and repair drainage ditches to maintain capacity.	Flood	El Dorado Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
El Dorado 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	El Dorado Administration	Low	4	Staff Time	Local budgets	Five years	New
El Dorado 12	Construct community saferooms in select jurisdictional buildings.	Severe Storm, Tornado	El Dorado Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
El Dorado 13	Develop a community wildfire protection plan that addresses defensible space buffers around critical facilities and includes a public education element.	Wildfire	El Dorado Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
El Dorado 14	Continue to maintain cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	El Dorado IT Director	Low	1, 2	Data size dependent	Local budgets	On-going	New
El Dorado 15	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	El Dorado Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New
El Dorado 16	Provide chlorine scrubbers at water treatment facilities to mitigate a chemical release.	Hazardous Materials Event	El Dorado Administration	Medium	1, 2	$300,000	HMGP, Local budgets	Five years	New

Latham Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Latham 1	Purchase and install critical facility backup generators.	All hazards	Latham City Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Latham 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Latham City Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Latham 3	Institute a tree trimming program near utility lines.	All hazards	Latham City Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Latham 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Latham City Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Latham 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Latham City Administration	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Latham 6	Conduct a personal water use education program.	Drought	Latham City Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Latham 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Latham City Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Latham 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Latham City Administration	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Latham 9	Continue to participate meet requirements of the NFIP.	Flood	Latham City Administration	High	1, 2	Staff time	Local budgets	Continuous	On-going

Latham Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Latham 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Latham City Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Latham 11	Clean and repair drainage ditches to maintain capacity.	Flood	Latham City Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Latham 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Latham City Administration	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Latham 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Latham City Administration	Low	4	Staff Time	Local budgets	Five years	New
Latham 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Latham City Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Latham 15	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Latham City Administration	Low	1, 2	Data size dependent	Local budgets	Five years	New

Leon Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Leon 1	Purchase and install critical facility backup generators.	All hazards	Leon Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Leon 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Leon Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Leon 3	Institute a tree trimming program near utility lines.	All hazards	Leon Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Leon 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Leon Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Leon 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Leon Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Leon 6	Conduct a personal water use education program.	Drought	Leon Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Leon 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Leon Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Leon 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Leon Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Leon 9	Continue to participate meet requirements of the NFIP.	Flood	Leon NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Leon Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Leon 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Leon Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Leon 11	Clean and repair drainage ditches to maintain capacity.	Flood	Leon Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Leon 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Leon Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Leon 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Leon Administration	Low	4	Staff Time	Local budgets	Five years	New
Leon 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Leon Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Leon 15	Create defensible space buffers at all critical facilities	Wildfire	Leon Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Leon 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Leon IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Leon 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Leon Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Potwin Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Potwin 1	Purchase and install critical facility backup generators.	All hazards	City Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Potwin 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	City Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Potwin 3	Institute a tree trimming program near utility lines.	All hazards	City Administration	High	1, 2	$50,000	HMGP, BRIC, Local Budgets	As required	New
Potwin 4	Replace existing Water and Sewer Lines. These lines are old and deteriorating and need replacing.	All hazards	City Administration	High	2	$3 Million	HMGP, Local State	Five years	Carried over due to lack of funding
Potwin 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	City Administration	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Potwin 6	Conduct a personal water use education program.	Drought	City Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Potwin 7	Conduct public education campaign on home seismic retrofits.	Earthquake	City Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Potwin 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	City Administration	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Potwin 9	Continue to participate meet requirements of the NFIP.	Flood	City Administration	High	1, 2	Staff time	Local budgets	Continuous	On-going

Potwin Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Potwin 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	City Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Potwin 11	Clean and repair drainage ditches to maintain capacity.	Flood	City Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Potwin 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	City Administration	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Potwin 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	City Administration	Low	4	Staff Time	Local budgets	Five years	New
Potwin 14	Construct community saferooms in select jurisdictional buildings.	Tornado	City Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Potwin 15	Create defensible space buffers at all critical facilities	Wildfire	City Administration, Fire Dept	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Potwin 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	City Administration	Low	1, 2	Data size dependent	Local budgets	Five years	New
Potwin 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	City Administration, Potwin Fire Dept	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New
Potwin 18	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	City Administration, Potwin Fire Dept	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Potwin 19	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	Administration, Potwin Fire Dept	Medium	1,2,3	$30 per student per training	WUI grant dollars, Fire budget	On going	New

Rose Hill Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rose Hill 1	Purchase and install critical facility backup generators.	All hazards	Rose Hill Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Rose Hill 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Rose Hill Administration	Medium	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Rose Hill 3	Institute a tree trimming program near utility lines.	All hazards	Rose Hill Administration	Medium	1, 2	$15,000 annually	HMGP, BRIC, Local Budgets	As required	On-going
Rose Hill 4	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Rose Hill Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Rose Hill 5	Conduct a personal water use education program.	Drought	Rose Hill Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Rose Hill 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Rose Hill Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Rose Hill 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Rose Hill Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Rose Hill 8	Continue to participate meet requirements of the NFIP.	Flood	Rose Hill NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Rose Hill 9	Construct rainwater retention/detention ponds at strategic locations.	Flood	Rose Hill Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	On going

Rose Hill Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rose Hill 10	Clean and repair drainage ditches to maintain capacity.	Flood	Rose Hill Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	On going
Rose Hill 11	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Rose Hill Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Rose Hill 12	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Rose Hill Administration	Low	4	Staff Time	Local budgets	Five years	New
Rose Hill 13	Construct community saferooms in select jurisdictional buildings.	Tornado	Rose Hill Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Rose Hill 14	Create defensible space buffers at all critical facilities	Wildfire	Rose Hill Fire	Low	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Rose Hill 15	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Rose Hill IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	On going
Rose Hill 16	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Rose Hill Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Towanda Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Towanda 1	Purchase and install critical facility backup generators.	All hazards	Towanda Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Towanda 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Towanda Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Towanda 3	Institute a tree trimming program near utility lines.	All hazards	Towanda Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Towanda 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Towanda Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Towanda 4	Conduct a personal water use education program.	Drought	Towanda Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Towanda 5	Conduct public education campaign on home seismic retrofits.	Earthquake	Towanda Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Towanda 6	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Towanda Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Towanda 7	Continue to participate meet requirements of the NFIP.	Flood	Towanda NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Towanda Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Towanda 8	Construct rainwater retention/detention ponds at strategic locations.	Flood	Towanda Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Towanda 9	Clean and repair drainage ditches to maintain capacity.	Flood	Towanda Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Towanda 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Towanda Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Towanda 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Towanda Administration	Low	4	Staff Time	Local budgets	Five years	New
Towanda 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Towanda Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Towanda 13	Create defensible space buffers at all critical facilities	Wildfire	Towanda Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Towanda 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Towanda IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Towanda 15	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Towanda Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Whitewater Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Whitewater 1	Purchase and install critical facility backup generators.	All hazards	Whitewater Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Whitewater 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Whitewater Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Whitewater 3	Institute a tree trimming program near utility lines.	All hazards	Whitewater Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Whitewater 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Whitewater Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Whitewater 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Whitewater Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Whitewater 6	Conduct a personal water use education program.	Drought	Whitewater Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Whitewater 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Whitewater Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Whitewater 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Whitewater Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Whitewater 9	Continue to participate meet requirements of the NFIP.	Flood	Whitewater NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Whitewater Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Whitewater 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Whitewater Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Whitewater 11	Clean and repair drainage ditches to maintain capacity.	Flood	Whitewater Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Whitewater 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Whitewater Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Whitewater 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Whitewater Administration	Low	4	Staff Time	Local budgets	Five years	New
Whitewater 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Whitewater Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Whitewater 15	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Whitewater IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New

Augusta Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Augusta Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Augusta Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Augusta Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Augusta Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Augusta Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Augusta Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Benton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Benton Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Benton Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Benton Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Benton Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Benton Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Benton Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Bloomington Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Bloomington Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Bloomington Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Bloomington Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Bloomington Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Bloomington Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Bloomington Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

El Dorado Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
El Dorado Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
El Dorado Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
El Dorado Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
El Dorado Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
El Dorado Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
El Dorado Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Fairmount Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Fairmount Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Fairmount Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Fairmount Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Fairmount Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Fairmount Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Fairmount Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Glencoe Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Glencoe Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Glencoe Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Glencoe Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Glencoe Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Glencoe Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Glencoe Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Little Walnut Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Little Walnut Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Little Walnut Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Little Walnut Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Little Walnut Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Little Walnut Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Little Walnut Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Milton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Milton Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Milton Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Milton Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Milton Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Milton Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Milton Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Murdock Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Murdock Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Murdock Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Murdock Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Murdock Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Murdock Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Murdock Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Prospect Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Prospect Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Prospect Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Prospect Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Prospect Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Prospect Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Prospect Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Rosalia Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rosalia Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Rosalia Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Rosalia Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Rosalia Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Rosalia Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Rosalia Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Spring Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Spring Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Spring Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Spring Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Spring Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Spring Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Spring Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Sycamore Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sycamore Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Sycamore Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sycamore Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sycamore Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Sycamore Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Sycamore Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Union Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Union Township 1	Purchase and install critical facility backup generators.	All hazards	Township Board	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Union Township 2	Clean and repair drainage ditches to maintain capacity.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Union Township 3	Improve bridges and culverts to enhance drainage and reduce flooding on township roads.	Flood	Township Board	High	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Union Township 4	Install hail and fire-resistant roofing on township facilities.	Severe Weather, Wildfires	Township Board	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Union Township 5	Create defensible space buffers at all facilities	Wildfire	Township Board	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Union Township 6	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Township Board	Low	1, 2	Data size dependent	Local budgets	Five years	New

Butler Community College Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler Community College 1	Purchase and install facility backup generators (1000, 1100, 1300, 1600, 1800 Buildings).	All hazards	Butler Community College President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Butler Community College 2	Conduct hazard mitigation education programs for students.	All hazards	Butler Community College President	Medium	1, 2, 3	$2,000	School Budget	As required	New
Butler Community College 3	Construct rainwater gardens adjacent to paved areas.	Flood	Butler Community College President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Butler Community College 4	Conduct regular emergency preparedness drills for students, faculty, and staff for issues to prepare for hazard events.	Wildfire, Tornado, Terrorism/ Severe Storm, Severe Winter Weather	Butler Community College President	High	1, 2, 3	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Butler Community College 5	Covered Car Parking for Butler Fleet Vehicles at Andover and El Dorado	Severe Storms	Butler Community College President	Low	1, 2	$400,000	HMGP, BRIC, School Budget	Five years	New

St. James Catholic School Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
St. James Catholic School 1	Purchase and install facility backup generators.	All hazards	St. James Administrator	High	1, 2	$10,000 - $50,000 per facility	HMGP, School Budget	Five years	Carried over due to lack of funding
St. James Catholic School 2	Construct safe rooms in all school buildings to required standards.	All hazards	St. James Administrator	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
St. James Catholic School 3	Conduct hazard mitigation education programs for students.	All hazards	St. James Administrator	Medium	1, 2, 3	$2,000	School Budget	As required	New
St. James Catholic School 4	Conduct a xeriscaping program for all school facilities	Drought	St. James Administrator	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
St. James Catholic School 5	Retrofit facilities to modern earthquake codes.	Earthquake	St. James Administrator	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Ten years	New
St. James Catholic School 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	St. James Administrator	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
St. James Catholic School 7	Construct rainwater gardens adjacent to paved areas.	Flood	St. James Administrator	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
St. James Catholic School 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	St. James Administrator	Low	1, 2	$100,000 per location	HMGP, School Budget	Five years	New
St. James Catholic School 9	Conduct regular staff and student active shooter trainings.	Terrorism	St. James Administrator	High	1, 2, 3	Location and size dependent	School Budget	As required	New

USD #205 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD #205 1	Purchase and install facility backup generators.	All hazards	USD 205 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, School Budget	Five years	Carried over due to lack of funding
USD #205 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 205 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD #205 3	Conduct hazard mitigation education programs for students.	All hazards	USD 205 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD #205 4	Conduct a xeriscaping program for all school facilities	Drought	USD 205 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD #205 5	Retrofit facilities to modern earthquake codes.	Earthquake	USD 205 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Ten years	New
USD #205 6	Construct rainwater gardens next to paved areas to minimize flooding.	Flood	USD 205 Superintendent	Medium	1, 2	Location and size dependent	HMGP, Jurisdiction budget	Five years	New
USD #205 7	Construct rainwater gardens adjacent to paved areas.	Severe Weather, Wildfires	USD 205 Superintendent	Low	1, 2	Location and size dependent	HMGP, School Budget	As required	New
USD #205 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 205 Superintendent	Low	1, 2	$100,000 per location	HMGP, School Budget	Five years	New
USD #205 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 205 Superintendent	High	1, 2, 3	Location and size dependent	School Budget	As required	New

USD #206 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD #206 1	Purchase and install facility backup generators.	All hazards	USD 206 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, School Budget	Five years	Carried over due to lack of funding
USD #206 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 206 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD #206 3	Conduct hazard mitigation education programs for students.	All hazards	USD 206 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD #206 4	Conduct a xeriscaping program for all school facilities	Drought	USD 206 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD #206 5	Retrofit facilities to modern earthquake codes.	Earthquake	USD 206 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Ten years	New
USD #206 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 206 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD #206 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 206 Superintendent	Low	1, 2	Location and size dependent	HMGP, School Budget	As required	New
USD #206 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 206 Superintendent	Low	1, 2	$100,000 per location	Facility size dependent	Five years	New
USD #206 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 206 Superintendent	High	1, 2, 3	Location and size dependent	School Budget	As required	New

USD #375 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD #375 1	Purchase and install facility backup generators.	All hazards	USD 375 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, School Budget	Five years	Carried over due to lack of funding
USD #375 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 375 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD #375 3	Conduct hazard mitigation education programs for students.	All hazards	USD 375 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD #375 4	Conduct a xeriscaping program for all school facilities	Drought	USD 375 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD #375 5	Retrofit facilities to modern earthquake codes.	Earthquake	USD 375 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Ten years	New
USD #375 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 375 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD #375 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 375 Superintendent	Low	1, 2	Location and size dependent	HMGP, School Budget	As required	New
USD #375 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 375 Superintendent	Low	1, 2	$100,000 per location	Facility size dependent	Five years	New
USD #375 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 375 Superintendent	High	1, 2, 3	Location and size dependent	School Budget	As required	New

USD #385 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD #385 1	Purchase and install facility backup generators.	All hazards	USD 385 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, School Budget	Five years	Carried over due to lack of funding
USD #385 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 385 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD #385 3	Conduct hazard mitigation education programs for students.	All hazards	USD 385 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD #385 4	Conduct a xeriscaping program for all school facilities	Drought	USD 385 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD #385 5	Retrofit facilities to modern earthquake codes.	Earthquake	USD 385 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Ten years	New
USD #385 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 385 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD #385 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 385 Superintendent	Low	1, 2	Location and size dependent	HMGP, School Budget	As required	New
USD #385 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 385 Superintendent	Low	1, 2	$100,000 per location	Facility size dependent	Five years	New
USD #385 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 385 Superintendent	High	1, 2, 3	Location and size dependent	School Budget	As required	New

USD #394 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD #394 1	Purchase and install facility backup generators.	All hazards	USD 394 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, School Budget	Five years	Carried over due to lack of funding
USD #394 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 394 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD #394 3	Conduct hazard mitigation education programs for students.	All hazards	USD 394 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD #394 4	Conduct a xeriscaping program for all school facilities	Drought	USD 394 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD #394 5	Retrofit facilities to modern earthquake codes.	Earthquake	USD 394 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Ten years	New
USD #394 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 394 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD #394 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 394 Superintendent	Low	1, 2	Location and size dependent	HMGP, School Budget	As required	New
USD #394 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 394 Superintendent	Low	1, 2	$100,000 per location	Facility size dependent	Five years	New
USD #394 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 394 Superintendent	High	1, 2, 3	Location and size dependent	School Budget	As required	New

USD #396 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 396-1	Purchase power supply backup generators for schools.	All Hazards	School Resource Officer	High	1,2	$80,000	HMGP Grant, Local, bond	Pending funding	Not started
USD 396-2	Pursue funding for improved controllable entrances/ exits.	All Hazards	School Resource Officer	Medium	1,2	$50,000	HMGP Grant, Local, bond	Pending funding	Not started
USD 396-3	Purchase communication radios	All Hazards	School Resource Officer	High	1,2	$25,000	HMGP Grant, Local, bond	Pending funding	Not started
USD 396-4	Purchase security cameras	All Hazards	School Resource Officer	Medium	1,2	$25,000	HMGP Grant, Local, bond	Pending funding	Not started
USD 396-5	Retrofit facilities to modern earthquake codes.	Earthquake	School Resource Officer	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Ten years	New
USD 396-6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	School Resource Officer	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 396-7	Construct rainwater gardens adjacent to paved areas.	Flood	School Resource Officer	Low	1, 2	Location and size dependent	HMGP, School Budget	As required	New
USD 396-8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	School Resource Officer	Low	1, 2	$100,000 per location	Facility size dependent	Five years	New

USD #402 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD #402 1	Purchase and install facility backup generators.	All hazards	USD 461 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, School Budget	Five years	Carried over due to lack of funding
USD #402 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 461 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD #402 3	Conduct hazard mitigation education programs for students.	All hazards	USD 461 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD #402 4	Conduct a xeriscaping program for all school facilities	Drought	USD 461 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD #402 5	Retrofit facilities to modern earthquake codes.	Earthquake	USD 461 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Ten years	New
USD #402 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 461 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD #402 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 461 Superintendent	Low	1, 2	Location and size dependent	HMGP, School Budget	As required	New
USD #402 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 461 Superintendent	Low	1, 2	$100,000 per location	Facility size dependent	Five years	New
USD #402 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 461 Superintendent	High	1, 2, 3	Location and size dependent	School Budget	As required	New

USD #490 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD #490 1	Purchase and install facility backup generators in school buildings.	All hazards	USD Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Completed
USD #490 2	Installation of a FEMA storm shelter at the Bus Barn	All Hazards	USD Superintendent	Medium	1,2	$100,000	HMGP; District Capital Funds	July 2020	Not yet started
USD #490 3	Installation of a FEMA storm shelter at the PAC/Extend campus	All Hazards	USD Superintendent	High	1,2	$1,000,000	HMGP; District Capital Funds	July 2025	Grant submitted
USD #490 4	Conduct hazard mitigation education programs for students.	All hazards	USD Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	Ongoing
USD #490 5	Conduct regular staff and student active shooter trainings.	Terrorism	USD Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	Ongoing
USD #490 6	Purchase and implementation of a comprehensive wireless radio system throughout the entire district.	All Hazards	USD Superintendent	High	1,2,4	$100,000	Pre-Disaster Mitigation Program; State Grant	July 2019	Completed
USD #490 7	Updates and increases of crisis buckets in all classrooms and offices	All Hazards	USD Superintendent	Medium	1,2	$10,000	Pre-Disaster Mitigation Program	July 2019	Completed
USD #490 8	Automation & integration of drill language & instructions into school phone and intercom systems	All Hazards	Assistant Superintendent	High	1,2,4	$5,000	PDM; District Funds	July 2019	Completed
USD #490 9	Construct Safe/Secure Entrance at El Dorado High School	Terrorism	USD Superintendent	High	1, 2, 3	Location and size dependent	HMGP, BRIC, School Budget	August 2024	Completed

USD #492 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD #492 1	Purchase and install facility backup generators.	All hazards	USD 461 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, School Budget	Five years	Carried over due to lack of funding
USD #492 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 461 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD #492 3	Conduct hazard mitigation education programs for students.	All hazards	USD 461 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD #492 4	Conduct a xeriscaping program for all school facilities	Drought	USD 461 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD #492 5	Retrofit facilities to modern earthquake codes.	Earthquake	USD 461 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Ten years	New
USD #492 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 461 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD #492 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 461 Superintendent	Low	1, 2	Location and size dependent	HMGP, School Budget	As required	New
USD #492 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 461 Superintendent	Low	1, 2	$100,000 per location	Facility size dependent	Five years	New
USD #492 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 461 Superintendent	High	1, 2, 3	Location and size dependent	School Budget	As required	New

Butler REC Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler REC 1	Reinforce and strengthen existing (19) miles of 69kV transmission line by installing storm guys on each mile of line	All hazards	Butler REC Vice President of Operations	High	1, 2	$162,000	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Butler REC 2	Replace (8) miles or existing three phase overhead lines and older underground conductors at the El Dorado State Park to all new underground lines	All hazards	Butler REC Vice President of Operations	Medium	1, 2	$1,800,000	HMGP, System budgets	Five years	Carried over due to lack of funding

Butler Co. Fire #3 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler Co. Fire District #3 1	Purchase and install facility backup generators.	All hazards	Butler Co. Fire District Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Butler Co. Fire Districts #3 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Butler Co. Fire District Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Butler Co. Fire Districts #3 3	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	Butler Co. Fire District Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	New

Butler Co. Fire District #6 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler Co. Fire District #6 1	Purchase and install facility backup generators.	All hazards	Butler Co. Fire District Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Butler Co. Fire Districts #6 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Butler Co. Fire District Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Butler Co. Fire Districts #6 3	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	Butler Co. Fire District Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	New
Butler Co. Fire Districts #6 4	Create defensible space buffers at all critical facilities	Wildfire	Butler Co. Fire District Chief	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Butler Co. Fire Districts #6 5	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Butler Co. Fire District Chief	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Butler Co. Fire District # Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler Co. Fire District #7 1	Purchase and install facility backup generators.	All hazards	Butler Co. Fire District Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Butler Co. Fire Districts #7 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Butler Co. Fire District Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Butler Co. Fire Districts #7 3	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	Butler Co. Fire District Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	New
Butler Co. Fire Districts #7 4	Create defensible space buffers at all critical facilities	Wildfire	Butler Co. Fire District Chief	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Butler Co. Fire Districts #7 5	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Butler Co. Fire District Chief	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Butler Co. Fire #10 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler Co. Fire District #10 1	Purchase and install facility backup generators.	All hazards	Butler Co. Fire District Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Butler Co. Fire Districts #10 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Butler Co. Fire District Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Butler Co. Fire Districts #10 3	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	Butler Co. Fire District Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	New

Whitewater River Consolidated Fire District Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Whitewater River Consolidated Fire District 1	Purchase and install facility backup generators.	All hazards	WRCFD Director	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Whitewater River Consolidated Fire District 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	WRCFD Director	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Whitewater River Consolidated Fire District 3	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	WRCFD Director	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	New
Whitewater River Consolidated Fire District 4	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	WRCFD Director	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Butler County Conservation District Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler County Conservation District 1	Provide administrative support to watershed districts to assist in implementing emergency action plans, repairs on dams, working with local planning and zoning to assure permits aren't issued in breach areas, inspections, grant writing, education and information to residents in breach areas below dams. .	All hazards, Dam and Levee Failure, Drought	Butler County Conservation District Director	High	1, 2	$30,000 per year	HMGP, BRIC, System budgets	On-going	Carried over due to lack of funding

Rural Water District #3 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rural Water District #3 1	Purchase and install facility backup generators.	All hazards	Director of Operations	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Rural Water District #3 2	Replace water lines at critical locations throughout service area .	Drought, Wildfire	Director of Operations	Medium	1,2	$105.00 an acre	HMGP, BRIC, System budget	On going	New

Rural Water District #5 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler Co. Rural Water District #5 1	Purchase and install facility backup generators. Lee Zone Station.	All hazards	Director of Operations	Medium	1, 2	$35,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Butler Co. Rural Water District #5 2	Purchase and install facility backup generators. Santa Fe. Station	All hazards	Director of Operations	Medium	1,2	$105.00 an acre	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Butler Co. Rural Water District #5 3	Purchase and install facility New Water Tower 300,000	Water capacity & Fire protection	Director of Operations	High	1, 2	$2,500.000 per facility	HMGP, BRIC, System budgets	Five / Ten years	Carried over due to lack of funding
Butler Co. Rural Water District #5 4	Purchase and install facility New Water Tower 500,000	Water capacity for growth & Fire protection	Director of Operations	High	1,2	$3,700.000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding

Rural Water District #7 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rural Water District #7 1	Purchase and install facility backup generators.	All hazards	Director of Operations	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Rural Water District #7 2	Replace water lines at critical locations throughout service area .	Drought, Wildfire	Director of Operations	Medium	1,2	$105.00 an acre	HMGP, BRIC, System budget	On going	New

Watershed District #18 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Watershed District #18 1	Purchase water pumps that can be used to draw down watershed lakes in the event of an emergency (flooding or repairs)	All hazards	Director of Operations	Medium	1, 2	Two pumps/ $10,000.00 each	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Watershed District #18 2	Conduct yearly dam inspections, as required by KS Dept of Ag/Division of Water Resources.	Dam/Levee Failure	Director of Operations	High	1,2	$25,000 per years	HMGP, BRIC, System budget	On going	New
Watershed District #18 3	Educate downstream residents in breach impact areas of the dangers should a dam fail and steps to take in an emergency.	Dam/Levee Failure	Director of Operations	High	1,2	$10,000 per years	HMGP, BRIC, System budget	On going	New
Watershed District #18 4	Update Emergency Action Plans every 5 years.	Dam/Levee Failure	Director of Operations	High	1,2	Location dependent	HMGP, BRIC, System budget	On going	New
Watershed District #18 5	Investigate other funding sources for major repairs on watershed infrastructure.	Dam/Levee Failure	Director of Operations	High	1,2	Staff time	HMGP, BRIC, System budget	On going	New
Watershed District #18 6	Make repairs (emergency or regular maintenance) in a timely manner.	Dam/Levee Failure	Director of Operations	High	1,2	Project dependent	HMGP, BRIC, System budget	On going	New

Watershed District #22 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Watershed District #22 1	Purchase water pumps that can be used to draw down watershed lakes in the event of an emergency (flooding or repairs)	All hazards	Director of Operations	Medium	1, 2	Two pumps/ $10,000.00 each	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Watershed District #22 2	Conduct yearly dam inspections, as required by KS Dept of Ag/Division of Water Resources.	Dam/Levee Failure	Director of Operations	High	1,2	$25,000 per years	HMGP, BRIC, System budget	On going	New
Watershed District #22 3	Educate downstream residents in breach impact areas of the dangers should a dam fail and steps to take in an emergency.	Dam/Levee Failure	Director of Operations	High	1,2	$10,000 per years	HMGP, BRIC, System budget	On going	New
Watershed District #22 4	Update Emergency Action Plans every 5 years.	Dam/Levee Failure	Director of Operations	High	1,2	Location dependent	HMGP, BRIC, System budget	On going	New
Watershed District #22 5	Investigate other funding sources for major repairs on watershed infrastructure.	Dam/Levee Failure	Director of Operations	High	1,2	Staff time	HMGP, BRIC, System budget	On going	New
Watershed District #22 6	Make repairs (emergency or regular maintenance) in a timely manner.	Dam/Levee Failure	Director of Operations	High	1,2	Project dependent	HMGP, BRIC, System budget	On going	New

Watershed District #27 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Watershed District #27 1	Purchase water pumps that can be used to draw down watershed lakes in the event of an emergency (flooding or repairs)	All hazards	Director of Operations	Medium	1, 2	Two pumps/ $10,000.00 each	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Watershed District #27 2	Conduct yearly dam inspections, as required by KS Dept of Ag/Division of Water Resources.	Dam/Levee Failure	Director of Operations	High	1,2	$25,000 per years	HMGP, BRIC, System budget	On going	New
Watershed District #27 3	Educate downstream residents in breach impact areas of the dangers should a dam fail and steps to take in an emergency.	Dam/Levee Failure	Director of Operations	High	1,2	$10,000 per years	HMGP, BRIC, System budget	On going	New
Watershed District #27 4	Update Emergency Action Plans every 5 years.	Dam/Levee Failure	Director of Operations	High	1,2	Location dependent	HMGP, BRIC, System budget	On going	New
Watershed District #27 5	Investigate other funding sources for major repairs on watershed infrastructure.	Dam/Levee Failure	Director of Operations	High	1,2	Staff time	HMGP, BRIC, System budget	On going	New
Watershed District #27 6	Make repairs (emergency or regular maintenance) in a timely manner.	Dam/Levee Failure	Director of Operations	High	1,2	Project dependent	HMGP, BRIC, System budget	On going	New

Watershed District #28 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Watershed District #28 1	Purchase water pumps that can be used to draw down watershed lakes in the event of an emergency (flooding or repairs)	All hazards	Director of Operations	Medium	1, 2	Two pumps/ $10,000.00 each	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Watershed District #28 2	Conduct yearly dam inspections, as required by KS Dept of Ag/Division of Water Resources.	Dam/Levee Failure	Director of Operations	High	1,2	$25,000 per years	HMGP, BRIC, System budget	On going	New
Watershed District #28 3	Educate downstream residents in breach impact areas of the dangers should a dam fail and steps to take in an emergency.	Dam/Levee Failure	Director of Operations	High	1,2	$10,000 per years	HMGP, BRIC, System budget	On going	New
Watershed District #28 4	Update Emergency Action Plans every 5 years.	Dam/Levee Failure	Director of Operations	High	1,2	Location dependent	HMGP, BRIC, System budget	On going	New
Watershed District #28 5	Investigate other funding sources for major repairs on watershed infrastructure.	Dam/Levee Failure	Director of Operations	High	1,2	Staff time	HMGP, BRIC, System budget	On going	New
Watershed District #28 6	Make repairs (emergency or regular maintenance) in a timely manner.	Dam/Levee Failure	Director of Operations	High	1,2	Project dependent	HMGP, BRIC, System budget	On going	New

Watershed District #33 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Watershed District #33 1	Purchase water pumps that can be used to draw down watershed lakes in the event of an emergency (flooding or repairs)	All hazards	Director of Operations	Medium	1, 2	Two pumps/ $10,000.00 each	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Watershed District #33 2	Conduct yearly dam inspections, as required by KS Dept of Ag/Division of Water Resources.	Dam/Levee Failure	Director of Operations	High	1,2	$25,000 per years	HMGP, BRIC, System budget	On going	New
Watershed District #33 3	Educate downstream residents in breach impact areas of the dangers should a dam fail and steps to take in an emergency.	Dam/Levee Failure	Director of Operations	High	1,2	$10,000 per years	HMGP, BRIC, System budget	On going	New
Watershed District #33 4	Update Emergency Action Plans every 5 years.	Dam/Levee Failure	Director of Operations	High	1,2	Location dependent	HMGP, BRIC, System budget	On going	New
Watershed District #33 5	Investigate other funding sources for major repairs on watershed infrastructure.	Dam/Levee Failure	Director of Operations	High	1,2	Staff time	HMGP, BRIC, System budget	On going	New
Watershed District #33 6	Make repairs (emergency or regular maintenance) in a timely manner.	Dam/Levee Failure	Director of Operations	High	1,2	Project dependent	HMGP, BRIC, System budget	On going	New

Susan B Allen Hospital Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Susan B Allen Hospital 1	Purchase and install facility backup generators.	All hazards	Susan B Allen Hospital Director	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Susan B Allen Hospital-2	Installation Of Level 4 Bullet Resistant Glass At Two Registration Areas	Terrorism (active shooter)	Manager Of Maintenance / Security & Emerg. Preparedness	High	1, 2	$20,000	Capital Resources / Internal Funding	Five years	Planning Stage
Susan B Allen Hospital-3	Installation Of Steel Plates Used For Bullet Resistance At Registration Areas	Terrorism (active shooter)	Manager Of Maintenance / Security & Emerg. Preparedness	High	1, 2	$6,500	Capital Resources / Internal Funding	Five years	Planning Stage
Susan B Allen Hospital-4	Installation Of Exterior Bollards To Prevent A Vehicle From Coming Through The Front Of The Building	Terrorist	Manager Of Maintenance / Security & Emerg. Preparedness	High	1, 2	$50,000	Capital Resources / Internal Funding	Five years	Planning Stage
Susan B Allen Hospital-5	HAZMAT / DECON Training & Equipment For Staff	Hazardous Materials	Emergency Preparedness	High	1, 2, 3	$5,000	State, Federal, Local	Five years	Planning Stage

Cowley County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Cowley County 1	Install generators in all county facilities.	All hazards	Cowley County Emergency Manager, Cowley County Facilities Department	High	1, 3	$10,000 to $50,000 per location	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Cowley County 2	Upgrade and enhance sirens throughout county	All hazards	Cowley County Emergency Manager	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of funding
Cowley County 3	Purchase electronic mobile traffic notification signs.	All hazards	Cowley County Emergency Manager, Cowley County Public Works	Medium	1, 2	$35,000	HMGP, Jurisdiction budget	Five years	New
Cowley County 4	Conduct a regular tree trimming and tree wire installation program.	All hazards	Cowley County Emergency Manager	High	1, 2	$25,000 per occurrence	HMGP, BRIC, Jurisdiction budget	Five years	New
Cowley County 5	Conduct agricultural education program on water reduction methods.	Agricultural Infestation, Drought	Cowley County Emergency Manager	High	1, 3	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Cowley County 6	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	Cowley County Emergency Manager	High	1, 2	Staff Time and $500	Jurisdiction budget	Five years	Carried over due to lack of staff
Cowley County 7	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Cowley County Emergency Manager	Medium	1, 2, 4	$5,000 per location	HMGP, Jurisdiction budget	Five years	New
Cowley County 8	Map all infrastructure and facilities within dam inundation areas.	Dam/Levee Failure	Cowley County Emergency Manager	Medium	1, 2, 4	$10,000 per location	HMGP, Jurisdiction budget	Five years	New

Cowley County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Cowley County 9	Conduct a Xeriscaping program for all jurisdictional owned facilities	Drought	Cowley County Facilities Department	Low	1, 2	$5,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Cowley County 10	Revise building codes to require low water flow toilets and faucets.	Drought	Cowley County Administration	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Cowley County 11	Develop and recommend building code updates for seismic events	Earthquake	Cowley County Facilities Director	Low	1, 2	Staff time	Local budgets	Continuous	On-going
Cowley County 12	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	Cowley County Facilities Director	Low	1, 2	$25,000 per facility	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Cowley County 13	Identify and prepare county building for usage as heat/cold shelters.	Extreme Temperatures	Cowley County Facilities Director	Low	1, 2	$2,000 per facility	BRIC, Jurisdiction budget	Five years	New
Cowley County 14	Continue to participate in, and enforce provisions of, NFIP.	Flood	NFIP Administrator	High	1, 2	Per property cost	Jurisdiction budget	On-going	On-going
Cowley County 15	Purchase and demolish flood prone properties	Flood	Cowley County Emergency Manager, NFIP Administrator	High	1, 2	Per property cost	FMA, HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Cowley County 16	Conduct a flood insurance awareness program.	Flood	NFIP Administrator	High	1, 3	Staff Time	Jurisdiction budget	Five years	New
Cowley County 17	Construct rainwater retention/detention ponds at strategic locations.	Flood	NFIP Administrator, Public Works Director	Medium	1, 2	Facility size dependent	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding

Cowley County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Cowley County 18	Procure permanent signage to warn of flood hazard areas.	Flood	NFIP Administrator, Cowley County Emergency Manager	Medium	1, 2	Location dependent	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Cowley County 19	Install surge protectors in all jurisdictional facilities.	Severe Weather	Cowley County Facilities Director	Medium	1, 2	$10,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Cowley County 20	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	Cowley County Facilities Director	Medium	1, 2	$50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Cowley County 21	Construct community safe rooms throughout the county to required building standards	Severe Storms, Tornado	Cowley County Emergency Manager	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Cowley County 22	Construct snow fences along major transportation routes.	Winter Storm	Cowley County Public Works Director	Low	1, 2	$25,000 - $100,000 per location	HMGP, PDM, Jurisdiction budget	Ten years	Carried over due to lack of funding
Cowley County 23	Insulate water lines in all jurisdictional facilities.	Winter Storm	Cowley County Building Director	Low	1, 2	$10,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Cowley County 24	Increase public training on brush clearance to minimize fuel for wildland-urban interface fires	Wildfire	Cowley County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
Cowley County 25	Increase public and fire department training on wildland-urban interface fire prevention.	Wildfire	Cowley County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding

Cowley County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Cowley County 26	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Cowley County IT Director	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Cowley County 27	Provide hazardous materials response training to first responders and emergency management staff.	Hazardous Materials Event	Cowley County Emergency Manager	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New
Cowley County 28	Identify and map all structurally deficient bridges.	Infrastructure Failure	Cowley County Public Works Director	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Cowley County 29	Conduct active shooter drills and exercises for all county personnel.	Terrorism	Cowley County Sheriff	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Cowley County 30	Purchase and install new epidemiological tracking software.	Transmissible Disease	Cowley County Health Department Director	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New

Arkansas City Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Arkansas City 1	Purchase and install critical facility backup generators.	All hazards	Arkansas City Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Arkansas City 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Arkansas City Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Arkansas City 3	Institute a tree trimming program near utility lines.	All hazards	Arkansas City Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Arkansas City 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Arkansas City Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Arkansas City 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Arkansas City Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Arkansas City 6	Conduct a personal water use education program.	Drought	Arkansas City Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Arkansas City 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Arkansas City Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Arkansas City 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Arkansas City Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Arkansas City 9	Continue to participate meet requirements of the NFIP.	Flood	Arkansas City NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Arkansas City Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Arkansas City 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Arkansas City Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Arkansas City 11	Clean and repair drainage ditches to maintain capacity.	Flood	Arkansas City Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Arkansas City 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Arkansas City Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Arkansas City 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Arkansas City Administration	Low	4	Staff Time	Local budgets	Five years	New
Arkansas City 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Arkansas City Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Arkansas City 15	Create defensible space buffers at all critical facilities	Wildfire	Arkansas City Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Arkansas City 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Arkansas City IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Arkansas City 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Arkansas City Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Atlanta Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Atlanta 1	Purchase and install critical facility backup generators.	All hazards	Atlanta Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Atlanta 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Atlanta Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Atlanta 3	Institute a tree trimming program near utility lines.	All hazards	Atlanta Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Atlanta 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Atlanta Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Atlanta 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Atlanta Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Atlanta 6	Conduct a personal water use education program.	Drought	Atlanta Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Atlanta 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Atlanta Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Atlanta 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Atlanta Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Atlanta 9	Continue to participate meet requirements of the NFIP.	Flood	Atlanta NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Atlanta Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Atlanta 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Atlanta Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Atlanta 11	Clean and repair drainage ditches to maintain capacity.	Flood	Atlanta Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Atlanta 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Atlanta Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Atlanta 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Atlanta Administration	Low	4	Staff Time	Local budgets	Five years	New
Atlanta 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Atlanta Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Atlanta 15	Create defensible space buffers at all critical facilities	Wildfire	Atlanta Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Atlanta 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Atlanta IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Atlanta 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Atlanta Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Burden Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Burden 1	Purchase and install critical facility backup generators.	All hazards	Burden Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Burden 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Burden Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Burden 3	Institute a tree trimming program near utility lines.	All hazards	Burden Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Burden 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Burden Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Burden 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Burden Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Burden 6	Conduct a personal water use education program.	Drought	Burden Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Burden 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Burden Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Burden 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Burden Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Burden 9	Continue to participate meet requirements of the NFIP.	Flood	Burden NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Burden Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Burden 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Burden Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Burden 11	Clean and repair drainage ditches to maintain capacity.	Flood	Burden Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Burden 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Burden Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Burden 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Burden Administration	Low	4	Staff Time	Local budgets	Five years	New
Burden 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Burden Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Burden 15	Create defensible space buffers at all critical facilities	Wildfire	Burden Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Burden 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Burden IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Burden 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Burden Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Dexter Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Dexter 1	Purchase and install critical facility backup generators.	All hazards	Dexter Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Dexter 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Dexter Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Dexter 3	Institute a tree trimming program near utility lines.	All hazards	Dexter Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Dexter 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Dexter Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Dexter 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Dexter Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Dexter 6	Conduct a personal water use education program.	Drought	Dexter Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Dexter 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Dexter Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Dexter 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Dexter Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Dexter 9	Continue to participate meet requirements of the NFIP.	Flood	Dexter NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Dexter Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Dexter 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Dexter Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Dexter 11	Clean and repair drainage ditches to maintain capacity.	Flood	Dexter Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Dexter 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Dexter Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Dexter 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Dexter Administration	Low	4	Staff Time	Local budgets	Five years	New
Dexter 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Dexter Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Dexter 15	Create defensible space buffers at all critical facilities	Wildfire	Dexter Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Dexter 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Dexter IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Dexter 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Dexter Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Geuda Springs Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Geuda Springs 1	Purchase and install critical facility backup generators.	All hazards	Geuda Springs Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Geuda Springs 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Geuda Springs Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Geuda Springs 3	Institute a tree trimming program near utility lines.	All hazards	Geuda Springs Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Geuda Springs 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Geuda Springs Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Geuda Springs 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Geuda Springs Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Geuda Springs 6	Conduct a personal water use education program.	Drought	Geuda Springs Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Geuda Springs 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Geuda Springs Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Geuda Springs 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Geuda Springs Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Geuda Springs 9	Continue to participate meet requirements of the NFIP.	Flood	Geuda Springs NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Geuda Springs Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Geuda Springs 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Geuda Springs Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Geuda Springs 11	Clean and repair drainage ditches to maintain capacity.	Flood	Geuda Springs Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Geuda Springs 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Geuda Springs Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Geuda Springs 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Geuda Springs Administration	Low	4	Staff Time	Local budgets	Five years	New
Geuda Springs 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Geuda Springs Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Geuda Springs 15	Create defensible space buffers at all critical facilities	Wildfire	Geuda Springs Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Geuda Springs 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Geuda Springs IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Geuda Springs 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Geuda Springs Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Parkerfield Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Parkerfield 1	Purchase and install critical facility backup generators.	All hazards	Parkerfield Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Parkerfield 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Parkerfield Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Parkerfield 3	Institute a tree trimming program near utility lines.	All hazards	Parkerfield Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Parkerfield 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Parkerfield Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Parkerfield 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Parkerfield Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Parkerfield 6	Conduct a personal water use education program.	Drought	Parkerfield Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Parkerfield 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Parkerfield Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Parkerfield 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Parkerfield Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Parkerfield 9	Continue to participate meet requirements of the NFIP.	Flood	Parkerfield NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Parkerfield Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Parkerfield 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Parkerfield Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Parkerfield 11	Clean and repair drainage ditches to maintain capacity.	Flood	Parkerfield Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Parkerfield 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Parkerfield Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Parkerfield 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Parkerfield Administration	Low	4	Staff Time	Local budgets	Five years	New
Parkerfield 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Parkerfield Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Parkerfield 15	Create defensible space buffers at all critical facilities	Wildfire	Parkerfield Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Parkerfield 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Parkerfield IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Parkerfield 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Parkerfield Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Udall Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Udall 1	Purchase and install critical facility backup generators.	All hazards	Udall Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Udall 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Udall Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Udall 3	Institute a tree trimming program near utility lines.	All hazards	Udall Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Udall 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Udall Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Udall 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Udall Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Udall 6	Conduct a personal water use education program.	Drought	Udall Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Udall 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Udall Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Udall 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Udall Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Udall 9	Continue to participate meet requirements of the NFIP.	Flood	Udall NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Udall Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Udall 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Udall Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Udall 11	Clean and repair drainage ditches to maintain capacity.	Flood	Udall Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Udall 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Udall Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Udall 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Udall Administration	Low	4	Staff Time	Local budgets	Five years	New
Udall 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Udall Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Udall 15	Create defensible space buffers at all critical facilities	Wildfire	Udall Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Udall 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Udall IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Udall 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Udall Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Winfield Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Winfield 1	Purchase and install critical facility backup generators.	All hazards	Winfield Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Winfield 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Winfield Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Winfield 3	Institute a tree trimming program near utility lines.	All hazards	Winfield Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Winfield 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Winfield Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Winfield 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Winfield Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Winfield 6	Conduct a personal water use education program.	Drought	Winfield Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Winfield 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Winfield Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Winfield 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Winfield Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Winfield 9	Continue to participate meet requirements of the NFIP.	Flood	Winfield NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Winfield Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Winfield 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Winfield Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Winfield 11	Clean and repair drainage ditches to maintain capacity.	Flood	Winfield Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Winfield 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Winfield Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Winfield 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Winfield Administration	Low	4	Staff Time	Local budgets	Five years	New
Winfield 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Winfield Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Winfield 15	Create defensible space buffers at all critical facilities	Wildfire	Winfield Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Winfield 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Winfield IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Winfield 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Winfield Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Beaver Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Beaver Township 1	Purchase and install critical facility backup generators.	All hazards	Beaver Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Beaver Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Beaver Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Beaver Township 3	Institute a tree trimming program near utility lines.	All hazards	Beaver Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Beaver Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Beaver Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Beaver Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Beaver Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Beaver Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Beaver Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Beaver Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Beaver Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Beaver Township 8	Continue to participate meet requirements of the NFIP.	Flood	Beaver Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Beaver Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Beaver Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Beaver Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Beaver Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Beaver Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Beaver Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Beaver Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Beaver Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Beaver Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Beaver Township 13	Create defensible space buffers at all facilities	Wildfire	Beaver Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Beaver Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Beaver Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Dexter Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Dexter Township 1	Purchase and install critical facility backup generators.	All hazards	Dexter Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Dexter Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Dexter Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Dexter Township 3	Institute a tree trimming program near utility lines.	All hazards	Dexter Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Dexter Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Dexter Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Dexter Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Dexter Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Dexter Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Dexter Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Dexter Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Dexter Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Dexter Township 8	Continue to participate meet requirements of the NFIP.	Flood	Dexter Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Dexter Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Dexter Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Dexter Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Dexter Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Dexter Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Dexter Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Dexter Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Dexter Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Dexter Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Dexter Township 13	Create defensible space buffers at all facilities	Wildfire	Dexter Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Dexter Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Dexter Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Bolton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Bolton Township 1	Purchase and install critical facility backup generators.	All hazards	Bolton Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Bolton Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Bolton Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Bolton Township 3	Institute a tree trimming program near utility lines.	All hazards	Bolton Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Bolton Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Bolton Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Bolton Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Bolton Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Bolton Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Bolton Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Bolton Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Bolton Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Bolton Township 8	Continue to participate meet requirements of the NFIP.	Flood	Bolton Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Bolton Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Bolton Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Bolton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Bolton Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Bolton Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Bolton Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Bolton Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Bolton Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Bolton Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Bolton Township 13	Create defensible space buffers at all facilities	Wildfire	Bolton Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Bolton Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Bolton Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Harvey Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harvey Township 1	Purchase and install critical facility backup generators.	All hazards	Harvey Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Harvey Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Harvey Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Harvey Township 3	Institute a tree trimming program near utility lines.	All hazards	Harvey Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Harvey Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Harvey Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Harvey Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Harvey Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Harvey Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Harvey Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Harvey Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Harvey Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Harvey Township 8	Continue to participate meet requirements of the NFIP.	Flood	Harvey Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Harvey Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Harvey Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Harvey Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harvey Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Harvey Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Harvey Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Harvey Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Harvey Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Harvey Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Harvey Township 13	Create defensible space buffers at all facilities	Wildfire	Harvey Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Harvey Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Harvey Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Liberty Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Liberty Township 1	Purchase and install critical facility backup generators.	All hazards	Liberty Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Liberty Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Liberty Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Liberty Township 3	Institute a tree trimming program near utility lines.	All hazards	Liberty Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Liberty Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Liberty Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Liberty Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Liberty Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Liberty Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Liberty Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Liberty Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Liberty Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Liberty Township 8	Continue to participate meet requirements of the NFIP.	Flood	Liberty Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Liberty Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Liberty Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Liberty Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Liberty Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Liberty Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Liberty Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Liberty Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Liberty Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Liberty Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Liberty Township 13	Create defensible space buffers at all facilities	Wildfire	Liberty Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Liberty Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Liberty Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Maple Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Maple Township 1	Purchase and install critical facility backup generators.	All hazards	Maple Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Maple Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Maple Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Maple Township 3	Institute a tree trimming program near utility lines.	All hazards	Maple Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Maple Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Maple Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Maple Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Maple Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Maple Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Maple Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Maple Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Maple Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Maple Township 8	Continue to participate meet requirements of the NFIP.	Flood	Maple Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Maple Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Maple Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Maple Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Maple Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Maple Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Maple Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Maple Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Maple Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Maple Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Maple Township 13	Create defensible space buffers at all facilities	Wildfire	Maple Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Maple Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Maple Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Ninnescah Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ninnescah Township 1	Purchase and install critical facility backup generators.	All hazards	Ninnescah Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Ninnescah Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Ninnescah Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Ninnescah Township 3	Institute a tree trimming program near utility lines.	All hazards	Ninnescah Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Ninnescah Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Ninnescah Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Ninnescah Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Ninnescah Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Ninnescah Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Ninnescah Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Ninnescah Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Ninnescah Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Ninnescah Township 8	Continue to participate meet requirements of the NFIP.	Flood	Ninnescah Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Ninnescah Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Ninnescah Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Ninnescah Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ninnescah Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Ninnescah Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Ninnescah Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Ninnescah Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Ninnescah Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Ninnescah Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Ninnescah Township 13	Create defensible space buffers at all facilities	Wildfire	Ninnescah Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Ninnescah Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Ninnescah Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Ottor Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ottor Township 1	Purchase and install critical facility backup generators.	All hazards	Ottor Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Ottor Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Ottor Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Ottor Township 3	Institute a tree trimming program near utility lines.	All hazards	Ottor Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Ottor Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Ottor Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Ottor Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Ottor Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Ottor Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Ottor Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Ottor Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Ottor Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Ottor Township 8	Continue to participate meet requirements of the NFIP.	Flood	Ottor Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Ottor Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Ottor Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Ottor Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ottor Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Ottor Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Ottor Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Ottor Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Ottor Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Ottor Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Ottor Township 13	Create defensible space buffers at all facilities	Wildfire	Ottor Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Ottor Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Ottor Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Pleasant Valley Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Pleasant Valley Township 1	Purchase and install critical facility backup generators.	All hazards	Pleasant Valley Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Pleasant Valley Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Pleasant Valley Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Pleasant Valley Township 3	Institute a tree trimming program near utility lines.	All hazards	Pleasant Valley Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Pleasant Valley Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Pleasant Valley Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Pleasant Valley Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Pleasant Valley Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Pleasant Valley Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Pleasant Valley Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Pleasant Valley Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Pleasant Valley Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Pleasant Valley Township 8	Continue to participate meet requirements of the NFIP.	Flood	Pleasant Valley Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Pleasant Valley Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Pleasant Valley Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Pleasant Valley Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Pleasant Valley Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Pleasant Valley Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Pleasant Valley Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Pleasant Valley Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Pleasant Valley Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Pleasant Valley Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Pleasant Valley Township 13	Create defensible space buffers at all facilities	Wildfire	Pleasant Valley Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Pleasant Valley Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Pleasant Valley Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Sheridan Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sheridan Township 1	Purchase and install critical facility backup generators.	All hazards	Sheridan Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Sheridan Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Sheridan Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Sheridan Township 3	Institute a tree trimming program near utility lines.	All hazards	Sheridan Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Sheridan Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Sheridan Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Sheridan Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Sheridan Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sheridan Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Sheridan Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Sheridan Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Sheridan Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Sheridan Township 8	Continue to participate meet requirements of the NFIP.	Flood	Sheridan Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Sheridan Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Sheridan Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Sheridan Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sheridan Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Sheridan Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Sheridan Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Sheridan Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Sheridan Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Sheridan Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sheridan Township 13	Create defensible space buffers at all facilities	Wildfire	Sheridan Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Sheridan Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Sheridan Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Silver Creek Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Silver Creek Township 1	Purchase and install critical facility backup generators.	All hazards	Silver Creek Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Silver Creek Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Silver Creek Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Silver Creek Township 3	Institute a tree trimming program near utility lines.	All hazards	Silver Creek Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Silver Creek Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Silver Creek Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Silver Creek Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Silver Creek Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Silver Creek Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Silver Creek Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Silver Creek Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Silver Creek Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Silver Creek Township 8	Continue to participate meet requirements of the NFIP.	Flood	Silver Creek Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Silver Creek Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Silver Creek Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Silver Creek Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Silver Creek Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Silver Creek Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Silver Creek Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Silver Creek Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Silver Creek Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Silver Creek Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Silver Creek Township 13	Create defensible space buffers at all facilities	Wildfire	Silver Creek Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Silver Creek Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Silver Creek Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Silverdale Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Silverdale Township 1	Purchase and install critical facility backup generators.	All hazards	Silverdale Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Silverdale Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Silverdale Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Silverdale Township 3	Institute a tree trimming program near utility lines.	All hazards	Silverdale Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Silverdale Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Silverdale Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Silverdale Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Silverdale Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Silverdale Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Silverdale Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Silverdale Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Silverdale Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Silverdale Township 8	Continue to participate meet requirements of the NFIP.	Flood	Silverdale Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Silverdale Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Silverdale Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Silverdale Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Silverdale Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Silverdale Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Silverdale Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Silverdale Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Silverdale Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Silverdale Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Silverdale Township 13	Create defensible space buffers at all facilities	Wildfire	Silverdale Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Silverdale Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Silverdale Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Tisdale Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Tisdale Township 1	Purchase and install critical facility backup generators.	All hazards	Tisdale Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Tisdale Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Tisdale Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Tisdale Township 3	Institute a tree trimming program near utility lines.	All hazards	Tisdale Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Tisdale Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Tisdale Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Tisdale Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Tisdale Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Tisdale Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Tisdale Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Tisdale Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Tisdale Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Tisdale Township 8	Continue to participate meet requirements of the NFIP.	Flood	Tisdale Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Tisdale Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Tisdale Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Tisdale Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Tisdale Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Tisdale Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Tisdale Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Tisdale Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Tisdale Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Tisdale Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Tisdale Township 13	Create defensible space buffers at all facilities	Wildfire	Tisdale Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Tisdale Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Tisdale Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Walnut Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Walnut Township 1	Purchase and install critical facility backup generators.	All hazards	Walnut Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Walnut Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Walnut Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Walnut Township 3	Institute a tree trimming program near utility lines.	All hazards	Walnut Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Walnut Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Walnut Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Walnut Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Walnut Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Walnut Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Walnut Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Walnut Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Walnut Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Walnut Township 8	Continue to participate meet requirements of the NFIP.	Flood	Walnut Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Walnut Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Walnut Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Walnut Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Walnut Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Walnut Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Walnut Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Walnut Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Walnut Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Walnut Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Walnut Township 13	Create defensible space buffers at all facilities	Wildfire	Walnut Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Walnut Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Walnut Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Cowley Community College Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Cowley Community College 1	Purchase and install facility backup generators.	All hazards	Cowley CC President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Cowley Community College 2	Construct safe rooms in all school buildings to required standards.	All hazards	Cowley CC President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
Cowley Community College 3	Conduct hazard mitigation education programs for students.	All hazards	Cowley CC President	Medium	1, 2, 3	$2,000	School Budget	As required	New
Cowley Community College 4	Conduct a xeriscaping program for all school facilities	Drought	Cowley CC President	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
Cowley Community College 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	Cowley CC President	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
Cowley Community College 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	Cowley CC President	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
Cowley Community College 7	Construct rainwater gardens adjacent to paved areas.	Flood	Cowley CC President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Cowley Community College 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Cowley CC President	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
Cowley Community College 9	Conduct regular staff and student active shooter trainings.	Terrorism	Cowley CC President	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 462 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 462 1	Purchase and install facility backup generators.	All hazards	USD 462 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 462 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 462 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 462 3	Conduct hazard mitigation education programs for students.	All hazards	USD 462 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 462 4	Conduct a xeriscaping program for all school facilities	Drought	USD 462 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 462 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 462 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 462 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 462 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 462 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 462 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 462 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 462 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 462 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 462 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 463 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 463 1	Purchase and install facility backup generators.	All hazards	USD 463 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 463 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 463 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 463 3	Conduct hazard mitigation education programs for students.	All hazards	USD 463 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 463 4	Conduct a xeriscaping program for all school facilities	Drought	USD 463 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 463 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 463 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 463 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 463 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 463 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 463 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 463 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 463 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 463 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 463 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 470 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 470 1	Purchase and install facility backup generators.	All hazards	USD 470 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 470 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 470 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 470 3	Conduct hazard mitigation education programs for students.	All hazards	USD 470 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 470 4	Conduct a xeriscaping program for all school facilities	Drought	USD 470 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 470 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 470 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 470 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 470 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 470 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 470 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 470 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 470 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 470 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 470 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 471 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 471 1	Purchase and install facility backup generators.	All hazards	USD 471 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 471 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 471 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 471 3	Conduct hazard mitigation education programs for students.	All hazards	USD 471 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 471 4	Conduct a xeriscaping program for all school facilities	Drought	USD 471 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 471 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 471 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 471 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 471 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 471 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 471 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 471 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 471 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 471 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 471 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

RFD #4 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
RFD #4 1	Purchase and install facility backup generators.	All hazards	RFD #4 Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
RFD #4 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	RFD 47 Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
RFD #4 3	Conduct Wildland Urban Interface prevention and response training for firefighters.	Wildfire	RFD #4 Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	New

RFD #7 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
RFD #7 1	Purchase and install facility backup generators.	All hazards	RFD #7 Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
RFD #7 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	RFD #7 Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
RFD #7 3	Conduct Wildland Urban Interface prevention and response training for firefighters.	Wildfire	RFD #7 Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	New

Rural Water District #1 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rural Water District #1 1	Purchase and install facility backup generators.	All hazards	Director of Operations	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Rural Water District #1 2	Replace water lines at critical locations throughout service area.	Drought	Director of Operations	Medium	1,2	Project size and location dependent	Bric, HMGP, System budget	On going	New

Big Caney RWD #1 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Big Caney RWD #1 1	Purchase and install facility backup generators.	All hazards	Director of Operations	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Big Caney RWD #1 2	Replace water lines at critical locations throughout service area.	Drought	Director of Operations	Medium	1,2	Project size and location dependent	Bric, HMGP, System budget	On going	New

Butler REC Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler REC 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Butler REC 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Sumner Cowley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sumner Cowley Electric Cooperative 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Sumner Cowley Electric Cooperative 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Harper County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harper County 1	Install generators in all county facilities.	All hazards	Harper County Emergency Manager, Harper County Facilities Department	High	1, 3	$10,000 to $50,000 per location	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Harper County 2	Upgrade and enhance sirens throughout county	All hazards	Harper County Emergency Manager	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of funding
Harper County 3	Purchase electronic mobile traffic notification signs.	All hazards	Harper County Emergency Manager, Harper County Public Works	Medium	1, 2	$35,000	HMGP, Jurisdiction budget	Five years	New
Harper County 4	Conduct a regular tree trimming and tree wire installation program.	All hazards	Harper County Emergency Manager	High	1, 2	$25,000 per occurrence	HMGP, BRIC, Jurisdiction budget	Five years	New
Harper County 5	Conduct agricultural education program on water reduction methods.	Agricultural Infestation, Drought	Harper County Emergency Manager	High	1, 3	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Harper County 6	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	Harper County Emergency Manager	High	1, 2	Staff Time and $500	Jurisdiction budget	Five years	Carried over due to lack of staff
Harper County 7	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Harper County Emergency Manager	Medium	1, 2, 4	$5,000 per location	HMGP, Jurisdiction budget	Five years	New
Harper County 8	Map all infrastructure and facilities within dam inundation areas.	Dam/Levee Failure	Harper County Emergency Manager	Medium	1, 2, 4	$10,000 per location	HMGP, Jurisdiction budget	Five years	New

Harper County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harper County 9	Conduct a Xeriscaping program for all jurisdictional owned facilities	Drought	Harper County Facilities Department	Low	1, 2	$5,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Harper County 10	Revise building codes to require low water flow toilets and faucets.	Drought	Harper County Administration	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Harper County 11	Develop and recommend building code updates for seismic events	Earthquake	Harper County Facilities Director	Low	1, 2	Staff time	Local budgets	Continuous	On-going
Harper County 12	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	Harper County Facilities Director	Low	1, 2	$25,000 per facility	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Harper County 13	Identify and prepare county building for usage as heat/cold shelters.	Extreme Temperatures	Harper County Facilities Director	Low	1, 2	$2,000 per facility	BRIC, Jurisdiction budget	Five years	New
Harper County 14	Continue to participate in, and enforce provisions of, NFIP.	Flood	NFIP Administrator	High	1, 2	Per property cost	Jurisdiction budget	On-going	On-going
Harper County 15	Purchase and demolish flood prone properties	Flood	Harper County Emergency Manager, NFIP Administrator	High	1, 2	Per property cost	FMA, HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Harper County 16	Conduct a flood insurance awareness program.	Flood	NFIP Administrator	High	1, 3	Staff Time	Jurisdiction budget	Five years	New
Harper County 17	Construct rainwater retention/detention ponds at strategic locations.	Flood	NFIP Administrator, Public Works Director	Medium	1, 2	Facility size dependent	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding

Harper County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harper County 18	Procure permanent signage to warn of flood hazard areas.	Flood	NFIP Administrator, Harper County Emergency Manager	Medium	1, 2	Location dependent	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Harper County 19	Install surge protectors in all jurisdictional facilities.	Severe Weather	Harper County Facilities Director	Medium	1, 2	$10,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Harper County 20	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	Harper County Facilities Director	Medium	1, 2	$50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Harper County 21	Construct community safe rooms throughout the county to required building standards	Severe Storms, Tornado	Harper County Emergency Manager	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Harper County 22	Construct snow fences along major transportation routes.	Winter Storm	Harper County Public Works Director	Low	1, 2	$25,000 - $100,000 per location	HMGP, PDM, Jurisdiction budget	Ten years	Carried over due to lack of funding
Harper County 23	Insulate water lines in all jurisdictional facilities.	Winter Storm	Harper County Building Director	Low	1, 2	$10,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Harper County 24	Increase public training on brush clearance to minimize fuel for wildland-urban interface fires	Wildfire	Harper County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
Harper County 25	Increase public and fire department training on wildland-urban interface fire prevention.	Wildfire	Harper County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding

Harper County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harper County 26	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Harper County IT Director	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Harper County 27	Provide hazardous materials response training to first responders and emergency management staff.	Hazardous Materials Event	Harper County Emergency Manager	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New
Harper County 28	Identify and map all structurally deficient bridges.	Infrastructure Failure	Harper County Public Works Director	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Harper County 29	Conduct active shooter drills and exercises for all county personnel.	Terrorism	Harper County Sheriff	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Harper County 30	Purchase and install new epidemiological tracking software.	Transmissible Disease	Harper County Health Department Director	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New

Anthony Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Anthony 1	Purchase and install critical facility backup generators.	All hazards	Anthony Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Anthony 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Anthony Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Anthony 3	Institute a tree trimming program near utility lines.	All hazards	Anthony Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Anthony 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Anthony Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Anthony 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Anthony Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Anthony 6	Conduct a personal water use education program.	Drought	Anthony Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Anthony 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Anthony Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Anthony 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Anthony Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Anthony 9	Continue to participate meet requirements of the NFIP.	Flood	Anthony NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Anthony Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Anthony 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Anthony Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Anthony 11	Clean and repair drainage ditches to maintain capacity.	Flood	Anthony Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Anthony 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Anthony Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Anthony 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Anthony Administration	Low	4	Staff Time	Local budgets	Five years	New
Anthony 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Anthony Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Anthony 15	Create defensible space buffers at all critical facilities	Wildfire	Anthony Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Anthony 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Anthony IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Anthony 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Anthony Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Attica Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Attica 1	Purchase and install critical facility backup generators.	All hazards	Attica Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Attica 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Attica Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Attica 3	Institute a tree trimming program near utility lines.	All hazards	Attica Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Attica 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Attica Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Attica 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Attica Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Attica 6	Conduct a personal water use education program.	Drought	Attica Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Attica 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Attica Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Attica 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Attica Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Attica 9	Continue to participate meet requirements of the NFIP.	Flood	Attica NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Attica Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Attica 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Attica Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Attica 11	Clean and repair drainage ditches to maintain capacity.	Flood	Attica Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Attica 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Attica Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Attica 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Attica Administration	Low	4	Staff Time	Local budgets	Five years	New
Attica 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Attica Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Attica 15	Create defensible space buffers at all critical facilities	Wildfire	Attica Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Attica 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Attica IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Attica 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Attica Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Bluff City Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Bluff City 1	Purchase and install critical facility backup generators.	All hazards	Bluff City Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Bluff City 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Bluff City Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Bluff City 3	Institute a tree trimming program near utility lines.	All hazards	Bluff City Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Bluff City 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Bluff City Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Bluff City 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Bluff City Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Bluff City 6	Conduct a personal water use education program.	Drought	Bluff City Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Bluff City 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Bluff City Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Bluff City 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Bluff City Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Bluff City 9	Continue to participate meet requirements of the NFIP.	Flood	Bluff City NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Bluff City Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Bluff City 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Bluff City Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Bluff City 11	Clean and repair drainage ditches to maintain capacity.	Flood	Bluff City Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Bluff City 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Bluff City Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Bluff City 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Bluff City Administration	Low	4	Staff Time	Local budgets	Five years	New
Bluff City 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Bluff City Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Bluff City 15	Create defensible space buffers at all critical facilities	Wildfire	Bluff City Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Bluff City 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Bluff City IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Bluff City 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Bluff City Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Danville Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Danville 1	Purchase and install critical facility backup generators.	All hazards	Danville Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Danville 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Danville Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Danville 3	Institute a tree trimming program near utility lines.	All hazards	Danville Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Danville 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Danville Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Danville 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Danville Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Danville 6	Conduct a personal water use education program.	Drought	Danville Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Danville 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Danville Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Danville 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Danville Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Danville 9	Continue to participate meet requirements of the NFIP.	Flood	Danville NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Danville Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Danville 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Danville Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Danville 11	Clean and repair drainage ditches to maintain capacity.	Flood	Danville Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Danville 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Danville Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Danville 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Danville Administration	Low	4	Staff Time	Local budgets	Five years	New
Danville 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Danville Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Danville 15	Create defensible space buffers at all critical facilities	Wildfire	Danville Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Danville 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Danville IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Danville 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Danville Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Harper Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harper 1	Purchase and install critical facility backup generators.	All hazards	Harper Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Harper 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Harper Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Harper 3	Institute a tree trimming program near utility lines.	All hazards	Harper Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Harper 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Harper Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Harper 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Harper Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Harper 6	Conduct a personal water use education program.	Drought	Harper Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Harper 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Harper Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Harper 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Harper Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Harper 9	Continue to participate meet requirements of the NFIP.	Flood	Harper NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Harper Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harper 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Harper Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Harper 11	Clean and repair drainage ditches to maintain capacity.	Flood	Harper Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Harper 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Harper Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Harper 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Harper Administration	Low	4	Staff Time	Local budgets	Five years	New
Harper 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Harper Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Harper 15	Create defensible space buffers at all critical facilities	Wildfire	Harper Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Harper 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Harper IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Harper 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Harper Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

USD 361 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 361 1	Purchase and install facility backup generators.	All hazards	USD 361 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 361 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 361 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 361 3	Conduct hazard mitigation education programs for students.	All hazards	USD 361 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 361 4	Conduct a xeriscaping program for all school facilities	Drought	USD 361 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 361 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 361 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 361 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 361 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 361 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 361 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 361 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 361 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 361 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 361 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 511 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 511 1	Purchase and install facility backup generators.	All hazards	USD 511 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 511 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 511 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 511 3	Conduct hazard mitigation education programs for students.	All hazards	USD 511 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 511 4	Conduct a xeriscaping program for all school facilities	Drought	USD 511 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 511 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 511 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 511 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 511 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 511 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 511 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 511 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 511 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 511 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 511 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Sumner Cowley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sumner Cowley Electric Cooperative 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Sumner Cowley Electric Cooperative 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Sunflower Electric Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sunflower Electric 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Sunflower Electric 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Wheatland REC Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Wheatland REC 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Wheatland REC 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Patterson Hospital Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Patterson Hospital 1	Purchase and install facility backup generators.	All hazards	Patterson Hospital CEO	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System Budget	Five years	Carried over due to lack of funding
Patterson Hospital 2	Construct safe rooms in all hospital buildings.	Severe Weather, Tornado, Wildfire	Patterson Hospital CEO	High	1, 2	$1,000,000 - per location	HMGP, BRIC, System budget	Ten years	New
Patterson Hospital 3	Install shatter resistant film on all facility windows	Severe Weather, Tornado, Wildfire	Community Health Center of SE Kansas Administrator	High	1, 2	$100,000	HMGP, BRIC, System budgets	Five years	New

Harvey County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harvey County 1	Install generators in all county facilities.	All hazards	Harvey County Emergency Manager, Harvey County Facilities Department	High	1, 3	$10,000 to $50,000 per location	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Harvey County 2	Upgrade and enhance sirens throughout county	All hazards	Harvey County Emergency Manager	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of funding
Harvey County 3	Purchase electronic mobile traffic notification signs.	All hazards	Harvey County Emergency Manager, Harvey County Public Works	Medium	1, 2	$35,000	HMGP, Jurisdiction budget	Five years	New
Harvey County 4	Conduct a regular tree trimming and tree wire installation program.	All hazards	Harvey County Emergency Manager	High	1, 2	$25,000 per occurrence	HMGP, BRIC, Jurisdiction budget	Five years	New
Harvey County 5	Conduct agricultural education program on water reduction methods.	Agricultural Infestation, Drought	Harvey County Emergency Manager	High	1, 3	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Harvey County 6	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	Harvey County Emergency Manager	High	1, 2	Staff Time and $500	Jurisdiction budget	Five years	Carried over due to lack of staff
Harvey County 7	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Harvey County Emergency Manager	Medium	1, 2, 4	$5,000 per location	HMGP, Jurisdiction budget	Five years	New
Harvey County 8	Map all infrastructure and facilities within dam inundation areas.	Dam/Levee Failure	Harvey County Emergency Manager	Medium	1, 2, 4	$10,000 per location	HMGP, Jurisdiction budget	Five years	New

Harvey County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harvey County 9	Conduct a Xeriscaping program for all jurisdictional owned facilities	Drought	Harvey County Facilities Department	Low	1, 2	$5,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Harvey County 10	Revise building codes to require low water flow toilets and faucets.	Drought	Harvey County Administration	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Harvey County 11	Develop and recommend building code updates for seismic events	Earthquake	Harvey County Facilities Director	Low	1, 2	Staff time	Local budgets	Continuous	On-going
Harvey County 12	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	Harvey County Facilities Director	Low	1, 2	$25,000 per facility	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Harvey County 13	Identify and prepare county building for usage as heat/cold shelters.	Extreme Temperatures	Harvey County Facilities Director	Low	1, 2	$2,000 per facility	BRIC, Jurisdiction budget	Five years	New
Harvey County 14	Continue to participate in, and enforce provisions of, NFIP.	Flood	NFIP Administrator	High	1, 2	Per property cost	Jurisdiction budget	On-going	On-going
Harvey County 15	Purchase and demolish flood prone properties	Flood	Harvey County Emergency Manager, NFIP Administrator	High	1, 2	Per property cost	FMA, HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Harvey County 16	Conduct a flood insurance awareness program.	Flood	NFIP Administrator	High	1, 3	Staff Time	Jurisdiction budget	Five years	New
Harvey County 17	Construct rainwater retention/detention ponds at strategic locations.	Flood	NFIP Administrator, Public Works Director	Medium	1, 2	Facility size dependent	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding

Harvey County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harvey County 18	Procure permanent signage to warn of flood hazard areas.	Flood	NFIP Administrator, Harvey County Emergency Manager	Medium	1, 2	Location dependent	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Harvey County 19	Install surge protectors in all jurisdictional facilities.	Severe Weather	Harvey County Facilities Director	Medium	1, 2	$10,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Harvey County 20	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	Harvey County Facilities Director	Medium	1, 2	$50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Harvey County 21	Construct community safe rooms throughout the county to required building standards	Severe Storms, Tornado	Harvey County Emergency Manager	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Harvey County 22	Construct snow fences along major transportation routes.	Winter Storm	Harvey County Public Works Director	Low	1, 2	$25,000 - $100,000 per location	HMGP, PDM, Jurisdiction budget	Ten years	Carried over due to lack of funding
Harvey County 23	Insulate water lines in all jurisdictional facilities.	Winter Storm	Harvey County Building Director	Low	1, 2	$10,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Harvey County 24	Increase public training on brush clearance to minimize fuel for wildland-urban interface fires	Wildfire	Harvey County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
Harvey County 25	Increase public and fire department training on wildland-urban interface fire prevention.	Wildfire	Harvey County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding

Harvey County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harvey County 26	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Harvey County IT Director	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Harvey County 27	Provide hazardous materials response training to first responders and emergency management staff.	Hazardous Materials Event	Harvey County Emergency Manager	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New
Harvey County 28	Identify and map all structurally deficient bridges.	Infrastructure Failure	Harvey County Public Works Director	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Harvey County 29	Conduct active shooter drills and exercises for all county personnel.	Terrorism	Harvey County Sheriff	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Harvey County 30	Purchase and install new epidemiological tracking software.	Transmissible Disease	Harvey County Health Department Director	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New

Burrton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Burrton 1	Purchase and install critical facility backup generators.	All hazards	Burrton Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Burrton 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Burrton Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Burrton 3	Institute a tree trimming program near utility lines.	All hazards	Burrton Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Burrton 4	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Burrton Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Burrton 5	Conduct a personal water use education program.	Drought	Burrton Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Burrton 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Burrton Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Burrton 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Burrton Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Burrton 8	Continue to participate meet requirements of the NFIP.	Flood	Burrton NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Burrton 9	Construct rainwater retention/detention ponds at strategic locations.	Flood	Burrton Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding

Burrton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Burrton 10	Clean and repair drainage ditches to maintain capacity.	Flood	Burrton Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Burrton 11	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Burrton Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Burrton 12	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Burrton Administration	Low	4	Staff Time	Local budgets	Five years	New
Burrton 13	Construct community saferooms in select jurisdictional buildings.	Tornado	Burrton Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Burrton 14	Create defensible space buffers at all critical facilities	Wildfire	Burrton CFD #5 Chief	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Burrton 15	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Burrton IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Burrton 16	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Burrton CFD #5 Chief	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Halstead Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Halstead 1	Purchase and install critical facility backup generators.	All hazards	Halstead Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Halstead 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Halstead Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Halstead 3	Institute a tree trimming program near utility lines.	All hazards	Halstead Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Halstead 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Halstead Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Halstead 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Halstead Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Halstead 6	Conduct a personal water use education program.	Drought	Halstead Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Halstead 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Halstead Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Halstead 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Halstead Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Halstead 9	Continue to participate meet requirements of the NFIP.	Flood	Halstead NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Halstead Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Halstead 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Halstead Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Halstead 11	Clean and repair drainage ditches to maintain capacity.	Flood	Halstead Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Halstead 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Halstead Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Halstead 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Halstead Administration	Low	4	Staff Time	Local budgets	Five years	New
Halstead 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Halstead Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Halstead 15	Create defensible space buffers at all critical facilities	Wildfire	Halstead Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Halstead 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Halstead IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Halstead 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Halstead Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Hesston Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hesston 1	Purchase and install critical facility backup generators.	All hazards	Hesston Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Hesston 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Hesston Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Hesston 3	Institute a tree trimming program near utility lines.	All hazards	Hesston Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Hesston 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Hesston Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Hesston 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Hesston Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Hesston 6	Conduct a personal water use education program.	Drought	Hesston Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Hesston 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Hesston Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Hesston 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Hesston Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Hesston 9	Continue to participate meet requirements of the NFIP.	Flood	Hesston NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Hesston Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hesston 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Hesston Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Hesston 11	Clean and repair drainage ditches to maintain capacity.	Flood	Hesston Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Hesston 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Hesston Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Hesston 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Hesston Administration	Low	4	Staff Time	Local budgets	Five years	New
Hesston 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Hesston Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Hesston 15	Create defensible space buffers at all critical facilities	Wildfire	Hesston Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Hesston 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Hesston IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Hesston 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Hesston Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Newton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Newton 1	Purchase and install critical facility backup generators.	All hazards	Newton Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Newton 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Newton Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Newton 3	Institute a tree trimming program near utility lines.	All hazards	Newton Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Newton 4	Develop Fire/EMS Station 4 in N. area Newton	All hazards	Newton Fire Chief	Med		$15,000,000	BRIC, local budgets	Five years	New
Newton 5	Relocate Fire/EMS Station 2 and make Emergency Services Center	All hazards	Newton Fire Chief	Med		$20,000,000	BRIC, local budgets	5-7 years	New
Newton 6	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Newton Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Newton 7	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Newton Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Newton 8	Conduct a personal water use education program.	Drought	Newton Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Newton 9	Conduct public education campaign on home seismic retrofits.	Earthquake	Newton Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Newton 10	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Newton Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff

Newton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Newton 11	Continue to participate meet requirements of the NFIP.	Flood	Newton NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Newton 12	Construct rainwater retention/detention ponds at strategic locations.	Flood	Newton Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Newton 13	Clean and repair drainage ditches to maintain capacity.	Flood	Newton Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Newton 14	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Newton Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Newton 15	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Newton Administration	Low	4	Staff Time	Local budgets	Five years	New
Newton 16	Construct community saferooms in select jurisdictional buildings.	Tornado	Newton Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Newton 17	Create defensible space buffers at all critical facilities	Wildfire	Newton Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Newton 18	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Newton IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Newton 19	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Newton Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

North Newton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
North Newton 1	Purchase and install critical facility backup generators.	All hazards	Public Works Director	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
North Newton 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	North Newton Administration	-	-	-	-	-	Complete
North Newton 3	Institute a tree trimming program near utility lines.	All hazards	North Newton Administration in conjunction with Evergy	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
North Newton 4	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Public Works Director	Low	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
North Newton 5	Conduct a personal water use education program.	Drought	North Newton Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
North Newton 6	Conduct public education campaign on home seismic retrofits.	Earthquake	North Newton Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	New
North Newton 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	North Newton Administration	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
North Newton 8	Continue to participate meet requirements of the NFIP.	Flood	North Newton NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

North Newton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
North Newton 9	Construct rainwater retention/detention ponds at strategic locations.	Flood	North Newton Administration	Medium	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
North Newton 10	Clean and repair drainage ditches, including Kidron Creek, to maintain capacity.	Flood	Public Works Director	Medium	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
North Newton 11	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	North Newton Administration	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
North Newton 12	Conduct public education program for driving in winter conditions.	Severe Winter Weather	North Newton Administration	Low	4	Staff Time	Local budgets	Five years	New
North Newton 13	Construct community saferooms in select jurisdictional buildings.	Tornado	North Newton Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
North Newton 14	Create defensible space buffers at all critical facilities	Wildfire	Public Works Director	Medium	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
North Newton 15	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Chief of Police and It Director	Medium	1, 2	Data size dependent	Local budgets	Five years	New
North Newton 16	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	North Newton coordinating with Newton Fire Chief	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Sedgwick Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick 1	Purchase and install critical facility backup generators.	All hazards	-	-	1, 2	-	-	-	Complete
Sedgwick 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Sedgwick Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Sedgwick 3	Institute a tree trimming program near utility lines.	All hazards	Sedgwick Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Sedgwick 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Sedgwick Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Sedgwick 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Sedgwick Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sedgwick 6	Conduct a personal water use education program.	Drought	Sedgwick Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Sedgwick 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Sedgwick Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Sedgwick 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Sedgwick Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Sedgwick 9	Continue to participate meet requirements of the NFIP.	Flood	Sedgwick NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Sedgwick Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	-	-	1, 2	-	-	-	Complete
Sedgwick 11	Clean and repair drainage ditches to maintain capacity.	Flood	Sedgwick Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sedgwick 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Sedgwick Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Sedgwick 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Sedgwick Administration	Low	4	Staff Time	Local budgets	Five years	New
Sedgwick 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Sedgwick Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sedgwick 15	Create defensible space buffers at all critical facilities	Wildfire	Sedgwick Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Sedgwick 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Sedgwick IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Sedgwick 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Sedgwick Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Walton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Walton 1	Purchase and install critical facility backup generators.	All hazards	Walton Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Walton 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Walton Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Walton 3	Institute a tree trimming program near utility lines.	All hazards	Walton Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Walton 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Walton Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Walton 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Walton Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Walton 6	Conduct a personal water use education program.	Drought	Walton Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Walton 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Walton Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Walton 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Walton Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Walton 9	Continue to participate meet requirements of the NFIP.	Flood	Walton NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Walton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Walton 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Walton Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Walton 11	Clean and repair drainage ditches to maintain capacity.	Flood	Walton Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Walton 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Walton Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Walton 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Walton Administration	Low	4	Staff Time	Local budgets	Five years	New
Walton 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Walton Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Walton 15	Create defensible space buffers at all critical facilities	Wildfire	Walton Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Walton 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Walton IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Walton 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Walton Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Alta Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Alta Township 1	Purchase and install critical facility backup generators.	All hazards	Alta Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Alta Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Alta Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Alta Township 3	Institute a tree trimming program near utility lines.	All hazards	Alta Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Alta Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Alta Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Alta Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Alta Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Alta Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Alta Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Alta Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Alta Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Alta Township 8	Continue to participate meet requirements of the NFIP.	Flood	Alta Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Alta Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Alta Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Alta Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Alta Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Alta Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Alta Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Alta Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Alta Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Alta Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Alta Township 13	Create defensible space buffers at all facilities	Wildfire	Alta Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Alta Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Alta Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Burrton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Burrton Township 1	Purchase and install critical facility backup generators.	All hazards	Burrton Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Burrton Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Burrton Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Burrton Township 3	Institute a tree trimming program near utility lines.	All hazards	Burrton Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Burrton Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Burrton Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Burrton Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Burrton Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Burrton Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Burrton Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Burrton Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Burrton Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Burrton Township 8	Continue to participate meet requirements of the NFIP.	Flood	Burrton Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Burrton Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Burrton Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Burrton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Burrton Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Burrton Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Burrton Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Burrton Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Burrton Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Burrton Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Burrton Township 13	Create defensible space buffers at all facilities	Wildfire	Burrton Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Burrton Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Burrton Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Darlington Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Darlington Township 1	Purchase and install critical facility backup generators.	All hazards	Darlington Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Darlington Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Darlington Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Darlington Township 3	Institute a tree trimming program near utility lines.	All hazards	Darlington Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Darlington Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Darlington Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Darlington Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Darlington Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Darlington Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Darlington Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Darlington Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Darlington Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Darlington Township 8	Continue to participate meet requirements of the NFIP.	Flood	Darlington Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Darlington Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Darlington Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Darlington Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Darlington Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Darlington Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Darlington Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Darlington Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Darlington Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Darlington Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Darlington Township 13	Create defensible space buffers at all facilities	Wildfire	Darlington Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Darlington Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Darlington Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Emma Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Emma Township 1	Purchase and install critical facility backup generators.	All hazards	Emma Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Emma Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Emma Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Emma Township 3	Institute a tree trimming program near utility lines.	All hazards	Emma Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Emma Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Emma Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Emma Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Emma Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Emma Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Emma Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Emma Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Emma Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Emma Township 8	Continue to participate meet requirements of the NFIP.	Flood	Emma Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Emma Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Emma Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Emma Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Emma Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Emma Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Emma Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Emma Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Emma Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Emma Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Emma Township 13	Create defensible space buffers at all facilities	Wildfire	Emma Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Emma Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Emma Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Halstead Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Halstead Township 1	Purchase and install critical facility backup generators.	All hazards	Halstead Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Halstead Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Halstead Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Halstead Township 3	Institute a tree trimming program near utility lines.	All hazards	Halstead Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Halstead Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Halstead Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Halstead Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Halstead Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Halstead Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Halstead Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Halstead Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Halstead Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Halstead Township 8	Continue to participate meet requirements of the NFIP.	Flood	Halstead Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Halstead Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Halstead Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Halstead Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Halstead Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Halstead Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Halstead Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Halstead Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Halstead Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Halstead Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Halstead Township 13	Create defensible space buffers at all facilities	Wildfire	Halstead Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Halstead Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Halstead Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Highland Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Highland Township 1	Purchase and install critical facility backup generators.	All hazards	Highland Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Highland Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Highland Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Highland Township 3	Institute a tree trimming program near utility lines.	All hazards	Highland Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Highland Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Highland Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Highland Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Highland Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Highland Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Highland Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Highland Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Highland Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Highland Township 8	Continue to participate meet requirements of the NFIP.	Flood	Highland Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Highland Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Highland Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Highland Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Highland Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Highland Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Highland Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Highland Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Highland Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Highland Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Highland Township 13	Create defensible space buffers at all facilities	Wildfire	Highland Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Highland Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Highland Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Lake Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lake Township 1	Purchase and install critical facility backup generators.	All hazards	Lake Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Lake Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Lake Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Lake Township 3	Institute a tree trimming program near utility lines.	All hazards	Lake Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Lake Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Lake Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Lake Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Lake Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Lake Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Lake Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lake Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Lake Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lake Township 8	Continue to participate meet requirements of the NFIP.	Flood	Lake Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Lake Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Lake Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Lake Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lake Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Lake Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Lake Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Lake Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Lake Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Lake Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Lake Township 13	Create defensible space buffers at all facilities	Wildfire	Lake Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Lake Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Lake Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Lakin Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lakin Township 1	Purchase and install critical facility backup generators.	All hazards	Lakin Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Lakin Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Lakin Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Lakin Township 3	Institute a tree trimming program near utility lines.	All hazards	Lakin Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Lakin Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Lakin Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Lakin Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Lakin Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Lakin Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Lakin Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lakin Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Lakin Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lakin Township 8	Continue to participate meet requirements of the NFIP.	Flood	Lakin Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Lakin Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Lakin Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Lakin Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lakin Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Lakin Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Lakin Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Lakin Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Lakin Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Lakin Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Lakin Township 13	Create defensible space buffers at all facilities	Wildfire	Lakin Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Lakin Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Lakin Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Macon Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Macon Township 1	Purchase and install critical facility backup generators.	All hazards	Macon Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Macon Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Macon Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Macon Township 3	Institute a tree trimming program near utility lines.	All hazards	Macon Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Macon Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Macon Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Macon Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Macon Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Macon Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Macon Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Macon Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Macon Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Macon Township 8	Continue to participate meet requirements of the NFIP.	Flood	Macon Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Macon Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Macon Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Macon Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Macon Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Macon Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Macon Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Macon Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Macon Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Macon Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Macon Township 13	Create defensible space buffers at all facilities	Wildfire	Macon Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Macon Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Macon Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Newton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Newton Township 1	Purchase and install critical facility backup generators.	All hazards	Newton Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Newton Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Newton Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Newton Township 3	Institute a tree trimming program near utility lines.	All hazards	Newton Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Newton Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Newton Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Newton Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Newton Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Newton Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Newton Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Newton Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Newton Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Newton Township 8	Continue to participate meet requirements of the NFIP.	Flood	Newton Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Newton Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Newton Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Newton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Newton Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Newton Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Newton Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Newton Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Newton Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Newton Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Newton Township 13	Create defensible space buffers at all facilities	Wildfire	Newton Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Newton Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Newton Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Pleasant Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Pleasant Township 1	Purchase and install critical facility backup generators.	All hazards	Pleasant Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Pleasant Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Pleasant Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Pleasant Township 3	Institute a tree trimming program near utility lines.	All hazards	Pleasant Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Pleasant Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Pleasant Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Pleasant Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Pleasant Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Pleasant Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Pleasant Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Pleasant Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Pleasant Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Pleasant Township 8	Continue to participate meet requirements of the NFIP.	Flood	Pleasant Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Pleasant Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Pleasant Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Pleasant Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Pleasant Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Pleasant Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Pleasant Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Pleasant Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Pleasant Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Pleasant Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Pleasant Township 13	Create defensible space buffers at all facilities	Wildfire	Pleasant Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Pleasant Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Pleasant Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Sedgwick Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick Township 1	Purchase and install critical facility backup generators.	All hazards	Sedgwick Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Sedgwick Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Sedgwick Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Sedgwick Township 3	Institute a tree trimming program near utility lines.	All hazards	Sedgwick Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Sedgwick Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Sedgwick Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Sedgwick Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Sedgwick Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sedgwick Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Sedgwick Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Sedgwick Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Sedgwick Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Sedgwick Township 8	Continue to participate meet requirements of the NFIP.	Flood	Sedgwick Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Sedgwick Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Sedgwick Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Sedgwick Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Sedgwick Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Sedgwick Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Sedgwick Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Sedgwick Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Sedgwick Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sedgwick Township 13	Create defensible space buffers at all facilities	Wildfire	Sedgwick Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Sedgwick Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Sedgwick Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Walton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Walton Township 1	Purchase and install critical facility backup generators.	All hazards	Walton Board Chair	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Walton Township 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Walton Board Chair	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Walton Township 3	Institute a tree trimming program near utility lines.	All hazards	Walton Board Chair	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	Carried over due to lack of funding
Walton Township 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Walton Board Chair	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Walton Township 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Walton Board Chair	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Walton Township 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Walton Board Chair	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Walton Township 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Walton Board Chair	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Walton Township 8	Continue to participate meet requirements of the NFIP.	Flood	Walton Board Chair	High	1, 2	Staff time	Local budgets	Continuous	On-going
Walton Township 9	Clean and repair drainage ditches to maintain capacity.	Flood	Walton Board Chair	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Walton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Walton Township 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Walton Board Chair	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Walton Township 11	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Walton Board Chair	Low	4	Staff Time	Local budgets	Five years	New
Walton Township 12	Construct community saferooms in select jurisdictional buildings.	Tornado	Walton Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Walton Township 13	Create defensible space buffers at all facilities	Wildfire	Walton Board Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Walton Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Walton Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

USD 369 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 369 1	Purchase and install facility backup generators.	All hazards	USD 361 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 369 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 361 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 369 3	Conduct hazard mitigation education programs for students.	All hazards	USD 361 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 369 4	Conduct a xeriscaping program for all school facilities	Drought	USD 361 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 369 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 361 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 369 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 361 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 369 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 361 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 361 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
	Conduct regular staff and student active shooter trainings.	Terrorism	USD 361 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 373 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 373 1	Purchase and install facility backup generators.	All hazards	USD 373 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 373 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 373 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 373 3	Conduct hazard mitigation education programs for students.	All hazards	USD 373 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 373 4	Conduct a xeriscaping program for all school facilities	Drought	USD 373 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 373 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 373 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 373 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 373 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 373 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 373 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 373 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 373 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 373 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 373 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 439 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 439 1	Purchase and install facility backup generators.	All hazards	USD 439 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 439 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 439 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 439 3	Conduct hazard mitigation education programs for students.	All hazards	USD 439 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 439 4	Conduct a xeriscaping program for all school facilities	Drought	USD 439 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 439 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 439 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 439 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 439 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 439 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 439 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 439 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 439 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 439 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 439 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 440 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 440 1	Purchase and install facility backup generators.	All hazards	USD 440 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 440 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 440 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 440 3	Conduct hazard mitigation education programs for students.	All hazards	USD 440 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 440 4	Conduct a xeriscaping program for all school facilities	Drought	USD 440 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 440 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 440 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 440 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 440 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 440 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 440 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 440 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 440 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 440 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 440 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 460 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 460 1	Purchase and install facility backup generators.	All hazards	USD 460 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 460 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 460 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 460 3	Conduct hazard mitigation education programs for students.	All hazards	USD 460 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 460 4	Conduct a xeriscaping program for all school facilities	Drought	USD 460 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 460 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 460 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 460 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 460 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 460 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 460 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 460 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 460 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 460 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 460 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Hesston College Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hesston College 1	Purchase and install facility backup generators.	All hazards	Hesston College President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Hesston College 2	Construct safe rooms in all school buildings to required standards.	All hazards	Hesston College President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
Hesston College 3	Conduct hazard mitigation education programs for students.	All hazards	Hesston College President	Medium	1, 2, 3	$2,000	School Budget	As required	New
Hesston College 4	Conduct a xeriscaping program for all school facilities	Drought	Hesston College President	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
Hesston College 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	Hesston College President	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
Hesston College 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	Hesston College President	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
Hesston College 7	Construct rainwater gardens adjacent to paved areas.	Flood	Hesston College President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Hesston College 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Hesston College President	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
Hesston College 9	Conduct regular staff and student active shooter trainings.	Terrorism	Hesston College President	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Ark Valley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ark Valley Electric Cooperative 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Ark Valley Electric Cooperative 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Butler REC Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler REC 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Butler REC 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Flint Hills REC Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Flint Hills REC 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	Medium	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Flint Hills REC 2	Replace Copper Weld line construction with current line construction.	All hazards	Director of Operations	High	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New
Flint Hills REC 3	Replace aging substations that are 40 to 60 years old	All hazards	Director of Operations	High	1, 2	$2 Million	HMGP, BRIC, System budget	Five years	New
Flint Hills REC 4	Purchase portable substation	All hazards	Director of Operations	High	1, 2	$2 Million	HMGP, BRIC, System budget	Five years	New

Burrton CFD #5 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Burrton CFD #5 1	Purchase and install facility backup generators.	All hazards	Burrton CFD #5 Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Burrton CFD #5 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Burrton CFD #5 Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Burrton CFD #5 3	Conduct Wildland Urban Interface mitigation and response training for firefighters.	Wildfire	Burrton CFD #5 Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	New

Harvey County RFD #1 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Harvey County RFD #1 1	Purchase and install facility backup generators.	All hazards	Harvey County RFD #1 Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Harvey County RFD #1 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Harvey County RFD #1 Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Harvey County RFD #1 3	Conduct Wildland Urban Interface mitigation and response training for firefighters.	Wildfire	Harvey County RFD #1 Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	New

Harvey County Rural Water District #1 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rural Water District #1 1	Purchase and install facility backup generators.	All hazards	Director of Operations	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Rural Water District #1 2	Replace water lines at critical locations throughout service area.	Drought	Director of Operations	Medium	1,2	Project size and location dependent	Bric, HMGP, System budget	On going	New

Little Arkansas River Drainage District Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Little Arkansas River Drainage District 1	Conduct riverbank stabilization projects, especially at bridge abutments.	All hazards	Operations Manager	High	1, 2	$120,000 per project	HMGP, Local budget	Five years	New

Sand Creek Watershed Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sand Creek Watershed 1	Conduct riverbank stabilization projects, especially at bridge abutments.	All hazards	Operations Manager	High	1, 2	$120,000 per project	HMGP, Local budget	Five years	New

Kingman County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Kingman County 1	Install generators in all county facilities.	All hazards	Kingman County Emergency Manager, Kingman County Facilities Department	High	1, 3	$10,000 to $50,000 per location	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Kingman County 2	Upgrade and enhance sirens throughout county	All hazards	Kingman County Emergency Manager	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of funding
Kingman County 3	Purchase electronic mobile traffic notification signs.	All hazards	Kingman County Emergency Manager, Kingman County Public Works	Medium	1, 2	$35,000	HMGP, Jurisdiction budget	Five years	New
Kingman County 4	Conduct a regular tree trimming and tree wire installation program.	All hazards	Kingman County Emergency Manager	High	1, 2	$25,000 per occurrence	HMGP, BRIC, Jurisdiction budget	Five years	New
Kingman County 5	Conduct agricultural education program on water reduction methods.	Agricultural Infestation, Drought	Kingman County Emergency Manager	High	1, 3	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Kingman County 6	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	Kingman County Emergency Manager	High	1, 2	Staff Time and $500	Jurisdiction budget	Five years	Carried over due to lack of staff
Kingman County 7	Install evacuation route and high ground signage in any high	Dam/Levee Failure	Kingman County	Medium	1, 2, 4	$5,000 per location	HMGP, Jurisdiction budget	Five years	New

Kingman County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
	hazard dam potential inundation areas.		Emergency Manager						
Kingman County 8	Map all infrastructure and facilities within dam inundation areas.	Dam/Levee Failure	Kingman County Emergency Manager	Medium	1, 2, 4	$10,000 per location	HMGP, Jurisdiction budget	Five years	New
Kingman County 9	Conduct a Xeriscaping program for all jurisdictional owned facilities	Drought	Kingman County Facilities Department	Low	1, 2	$5,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Kingman County 10	Revise building codes to require low water flow toilets and faucets.	Drought	Kingman County Administration	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Kingman County 11	Develop and recommend building code updates for seismic events	Earthquake	Kingman County Facilities Director	Low	1, 2	Staff time	Local budgets	Continuous	On-going
Kingman County 12	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	Kingman County Facilities Director	Low	1, 2	$25,000 per facility	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Kingman County 13	Identify and prepare county building for usage as heat/cold shelters.	Extreme Temperatures	Kingman County Facilities Director	Low	1, 2	$2,000 per facility	BRIC, Jurisdiction budget	Five years	New
Kingman County 14	Continue to participate in, and enforce provisions of, NFIP.	Flood	NFIP Administrator	High	1, 2	Per property cost	Jurisdiction budget	On-going	On-going
Kingman County 15	Purchase and demolish flood prone properties	Flood	Kingman County Emergency Manager, NFIP Administrator	High	1, 2	Per property cost	FMA, HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding

Kingman County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Kingman County 16	Conduct a flood insurance awareness program.	Flood	NFIP Administrator	High	1, 3	Staff Time	Jurisdiction budget	Five years	New
Kingman County 17	Construct rainwater retention/detention ponds at strategic locations.	Flood	NFIP Administrator, Public Works Director	Medium	1, 2	Facility size dependent	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Kingman County 18	Procure permanent signage to warn of flood hazard areas.	Flood	NFIP Administrator, Kingman County Emergency Manager	Medium	1, 2	Location dependent	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Kingman County 19	Install surge protectors in all jurisdictional facilities.	Severe Weather	Kingman County Facilities Director	Medium	1, 2	$10,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Kingman County 20	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	Kingman County Facilities Director	Medium	1, 2	$50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Kingman County 21	Construct community safe rooms throughout the county to required building standards	Severe Storms, Tornado	Kingman County Emergency Manager	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Kingman County 22	Construct snow fences along major transportation routes.	Winter Storm	Kingman County Public Works Director	Low	1, 2	$25,000 - $100,000 per location	HMGP, PDM, Jurisdiction budget	Ten years	Carried over due to lack of funding
Kingman County 23	Insulate water lines in all jurisdictional facilities.	Winter Storm	Kingman County Building Director	Low	1, 2	$10,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding

Kingman County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Kingman County 24	Increase public training on brush clearance to minimize fuel for wildland-urban interface fires	Wildfire	Kingman County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
Kingman County 25	Increase public and fire department training on wildland-urban interface fire prevention.	Wildfire	Kingman County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
Kingman County 26	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Kingman County IT Director	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Kingman County 27	Provide hazardous materials response training to first responders and emergency management staff.	Hazardous Materials Event	Kingman County Emergency Manager	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New
Kingman County 28	Identify and map all structurally deficient bridges.	Infrastructure Failure	Kingman County Public Works Director	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Kingman County 29	Conduct active shooter drills and exercises for all county personnel.	Terrorism	Kingman County Sheriff	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Kingman County 30	Purchase and install new epidemiological tracking software.	Transmissible Disease	Kingman County Health Department Director	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New

UDS 331 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
UDS 331 1	Purchase and install facility backup generators.	All hazards	USD 331 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
UDS 331 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 331 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
UDS 331 3	Conduct hazard mitigation education programs for students.	All hazards	USD 331 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
UDS 331 4	Conduct a xeriscaping program for all school facilities	Drought	USD 331 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
UDS 331 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 331 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
UDS 331 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 331 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
UDS 331 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 331 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
UDS 331 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 331 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
UDS 331 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 331 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Ark Valley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ark Valley Electric Cooperative 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Ark Valley Electric Cooperative 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Sumner Cowley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sumner Cowley Electric Cooperative 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Sumner Cowley Electric Cooperative 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Marion County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marion County 1	Install generators in all county facilities.	All hazards	Marion County Emergency Manager, Marion County Commission	High	1, 3	$10,000 to $50,000 per location	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Marion County 2	Purchase electronic mobile traffic notification signs.	All Hazards	Marion County Emergency Manager, Marion County Road & Bridge	Medium	1, 2	$35,000	HMGP, Local budgets	Five years	New
Marion County 3	Conduct a regular tree trimming and tree wire installation program.	All Hazards	Marion County Emergency Manager	High	1, 2	$25,000 per occurrence	HMGP, BRIC, Local Budgets	Five years	New
Marion County 4	Conduct agricultural education program on water reduction methods.	Agricultural Infestation, Drought	K-State Extension Agent	High	1, 3	Staff Time	Local budgets	Five years	Carried over due to lack of staff
Marion County 5	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	K-State Extension Agent	High	1, 2	Staff Time and $500	Local budgets	Five years	Carried over due to lack of staff
Marion County 6	Map all infrastructure and facilities within dam inundation areas.	Dam/Levee Failure	Kingman County Emergency Manager	Medium	1, 2, 4	$10,000 per location	HMGP, Jurisdiction budget	Five years	New
Marion County 7	Develop and recommend building code updates for seismic events	Earthquake	Marion County Facilities Director	Low	1, 2	Staff time	Local budgets	Continuous	On-going
Marion County 8	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	Marion County Commission	Low	1, 2	$25,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Marion County 9	Identify and prepare county building for	Extreme Temperatures	Marion County Commission,	Low	1, 2	$2,000 per facility	BRIC, Local budgets	Five years	New

Marion County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
	usage as heat/cold shelters.		Marion County Emergency Mgmt						
Marion County 10	Continue to participate in, and enforce provisions of, NFIP.	Flood	NFIP Administrator	High	1, 2	Per property cost	Local budgets	On-going	On-going
Marion County 11	Purchase and demolish flood prone properties	Flood	Marion County Commission, Marion County Cities	High	1, 2	Per property cost	FMA, HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Marion County 12	Identification of areas with limited access due to flooding. Develop a plan to mitigate those areas.	Flood	Floodplain Manager	High	1,2	$20,000	Local Budget	Five years	Not started, lack of funding
Marion County 13	Conduct a flood insurance awareness program.	Flood	Marion County Emergency Management	High	1, 3	Staff Time	Local budgets	Five years	New
Marion County 14	Construct rainwater retention/detention ponds at strategic locations.	Flood	NFIP Administrator, Marion County Road & Bridge	Medium	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Marion County 15	Procure permanent signage to warn of flood hazard areas.	Flood	Marion County Road & Bridge, Marion County Planning & Zoning, Marion County Emergency Manager	Medium	1, 2	Location dependent	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Marion County 16	Install surge protectors in all jurisdictional facilities.	Severe Weather	Marion County Commission	Medium	1, 2	$10,000 per location	HMGP, BRIC, Local budgets	Five years	New

Marion County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marion County 17	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	Marion County Commission	Medium	1, 2	$50,000 per location	HMGP, BRIC, Local budgets	Five years	New
Marion County 18	Construct community safe rooms throughout the county to required building standards	Severe Storms, Tornado	Marion County Emergency Manager	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Marion County 19	Construct snow fences along major transportation routes.	Winter Storm	Marion County Road & Bridge, KDOT	Low	1, 2	$25,000 - $100,000 per location	HMGP, PDM, Local budgets	Ten years	Carried over due to lack of funding
Marion County 20	Insulate water lines in all jurisdictional facilities.	Winter Storm	Marion County Commission	Low	1, 2	$10,000 - $50,000 per location	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Marion County 21	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfire	Marion County Commission	Medium	1, 2	$50,000 per location	HMGP, BRIC, Local budgets	Five years	New
Marion County 22	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Marion County IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Marion County 23	Provide hazardous materials response training to emergency responders	Hazardous Materials Event	Marion County Emergency Manager	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New
Marion County 24	Repave roads that have deteriorated due to various weather-related hazards and road usage. Projects include 330th Road from Meridian to K-15, 60th Road from Old Mill to timber Road, 40th Road from Timber to Yarrow Road, and	Utility/ Infrastructure Failure	Road and Bridge Superintendent	High	1,2	$3,172,260	Capital Improvement Fund, Grant through KDOT	Within Five years	Not started, lack of funding

Marion County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
	120th Road from Old Mill to Timber.								
Marion County 25	Identify and map all structurally deficient bridges.	Infrastructure Failure	Marion County Road & Bridge	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Burns Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Burns 1	Purchase and install critical facility backup generators.	All hazards	Burns Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Burns 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Burns Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Burns 3	Institute a tree trimming program near utility lines.	All hazards	Burns Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Burns 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Burns Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Burns 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Burns Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Burns 6	Conduct a personal water use education program.	Drought	Burns Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Burns 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Burns Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Burns 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Burns Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Burns 9	Continue to participate meet requirements of the NFIP.	Flood	Burns NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Burns Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Burns 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Burns Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
Burns 11	Clean and repair drainage ditches to maintain capacity.	Flood	Burns Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	New
Burns 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Burns Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Burns 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Burns Administration	Low	4	Staff Time	Local budgets	Five years	New
Burns 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Burns Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Burns 15	Create defensible space buffers at all critical facilities	Wildfire	Burns Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Burns 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Burns IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Burns 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Burns Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Florence Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Florence 1	Purchase and install critical facility backup generators.	All hazards	Florence Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Florence 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Florence Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Florence 3	Institute a tree trimming program near utility lines.	All hazards	Florence Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Florence 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Florence Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Florence 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Florence Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Florence 6	Conduct a personal water use education program.	Drought	Florence Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Florence 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Florence Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Florence 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Florence Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Florence 9	Continue to participate meet requirements of the NFIP.	Flood	Florence NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Florence Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Florence 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Florence Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
Florence 11	Clean and repair drainage ditches to maintain capacity.	Flood	Florence Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	New
Florence 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Florence Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Florence 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Florence Administration	Low	4	Staff Time	Local budgets	Five years	New
Florence 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Florence Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Florence 15	Create defensible space buffers at all critical facilities	Wildfire	Florence Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Florence 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Florence IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Florence 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Florence Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Goessel Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Goessel 1	Purchase and install critical facility backup generators.	All hazards	Goessel Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Goessel 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Goessel Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Goessel 3	Institute a tree trimming program near utility lines.	All hazards	Goessel Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Goessel 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Goessel Administration	High	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Goessel 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Goessel Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Goessel 6	Conduct a personal water use education program.	Drought	Goessel Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Goessel 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Goessel Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Goessel 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Goessel Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Goessel 9	Continue to participate meet requirements of the NFIP.	Flood	Goessel NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Goessel Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Goessel 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Goessel Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
Goessel 11	Clean and repair drainage ditches to maintain capacity.	Flood	Goessel Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	New
Goessel 12	Clearing and removal of brush and trees from creek	Flood	Goessel Administration	High	1, 2	Location and size dependent	HMPG, community foundation	Five years	New
Goessel 13	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Goessel Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Goessel 14	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Goessel Administration	Low	4	Staff Time	Local budgets	Five years	New
Goessel 15	Construct community saferooms in select jurisdictional buildings.	Tornado	Goessel Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Goessel 16	Create defensible space buffers at all critical facilities	Wildfire	Goessel Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Goessel 17	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Goessel Administration	Low	1, 2	Data size dependent	Local budgets	Five years	New
Goessel 18	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Goessel Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Hillsboro Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hillsboro 1	Purchase and install critical facility backup generators.	All hazards	Hillsboro Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Hillsboro 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Hillsboro Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Hillsboro 3	Institute a tree trimming program near utility lines.	All hazards	Hillsboro Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Hillsboro 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Hillsboro Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Hillsboro 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Hillsboro Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Hillsboro 6	Conduct a personal water use education program.	Drought	Hillsboro Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Hillsboro 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Hillsboro Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Hillsboro 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Hillsboro Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Hillsboro 9	Continue to participate meet requirements of the NFIP.	Flood	Hillsboro NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Hillsboro Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hillsboro 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Hillsboro Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
Hillsboro 11	Clean and repair drainage ditches to maintain capacity.	Flood	Hillsboro Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	New
Hillsboro 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Hillsboro Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Hillsboro 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Hillsboro Administration	Low	4	Staff Time	Local budgets	Five years	New
Hillsboro 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Hillsboro Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Hillsboro 15	Create defensible space buffers at all critical facilities	Wildfire	Hillsboro Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Hillsboro 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Hillsboro IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Hillsboro 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Hillsboro Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Lehigh Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lehigh 1	Purchase and install critical facility backup generators.	All hazards	Lehigh Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Lehigh 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Lehigh Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Lehigh 3	Institute a tree trimming program near utility lines.	All hazards	Lehigh Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Lehigh 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Lehigh Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Lehigh 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Lehigh Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Lehigh 6	Conduct a personal water use education program.	Drought	Lehigh Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Lehigh 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Lehigh Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lehigh 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Lehigh Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Lehigh 9	Continue to participate meet requirements of the NFIP.	Flood	Lehigh NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Lehigh Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lehigh 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Lehigh Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
Lehigh 11	Clean and repair drainage ditches to maintain capacity.	Flood	Lehigh Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	New
Lehigh 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Lehigh Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Lehigh 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Lehigh Administration	Low	4	Staff Time	Local budgets	Five years	New
Lehigh 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Lehigh Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Lehigh 15	Create defensible space buffers at all critical facilities	Wildfire	Lehigh Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Lehigh 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Lehigh IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Lehigh 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Lehigh Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Lincolnville Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lincolnville 1	Purchase and install critical facility backup generators.	All hazards	Lincolnville Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Lincolnville 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Lincolnville Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Lincolnville 3	Institute a tree trimming program near utility lines.	All hazards	Lincolnville Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Lincolnville 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Lincolnville Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Lincolnville 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Lincolnville Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Lincolnville 6	Conduct a personal water use education program.	Drought	Lincolnville Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Lincolnville 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Lincolnville Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lincolnville 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Lincolnville Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	**Carried over due to lack of staff**
Lincolnville 9	Continue to participate meet requirements of the NFIP.	Flood	Lincolnville NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Lincolnville Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lincolnville 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Lincolnville Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
Lincolnville 11	Clean and repair drainage ditches to maintain capacity.	Flood	Lincolnville Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	New
Lincolnville 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Lincolnville Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Lincolnville 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Lincolnville Administration	Low	4	Staff Time	Local budgets	Five years	New
Lincolnville 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Lincolnville Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Lincolnville 15	Create defensible space buffers at all critical facilities	Wildfire	Lincolnville Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Lincolnville 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Lincolnville IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Lincolnville 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Lincolnville Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Lost Springs Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lost Springs 1	Purchase and install critical facility backup generators.	All hazards	Lost Springs Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Lost Springs 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Lost Springs Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Lost Springs 3	Institute a tree trimming program near utility lines.	All hazards	Lost Springs Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Lost Springs 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Lost Springs Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Lost Springs 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Lost Springs Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Lost Springs 6	Conduct a personal water use education program.	Drought	Lost Springs Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Lost Springs 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Lost Springs Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lost Springs 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Lost Springs Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Lost Springs 9	Continue to participate meet requirements of the NFIP.	Flood	Lost Springs NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Lost Springs Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lost Springs 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Lost Springs Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	**Carried over due to lack of funding**
Lost Springs 11	Clean and repair drainage ditches to maintain capacity.	Flood	Lost Springs Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	**Carried over due to lack of funding**
Lost Springs 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Lost Springs Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Lost Springs 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Lost Springs Administration	Low	4	Staff Time	Local budgets	Five years	New
Lost Springs 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Lost Springs Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Lost Springs 15	Create defensible space buffers at all critical facilities	Wildfire	Lost Springs Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Lost Springs 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Lost Springs IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Lost Springs 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Lost Springs Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Marion Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marion 1	Purchase and install critical facility backup generators.	All hazards	Marion Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Marion 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Marion Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Marion 3	Institute a tree trimming program near utility lines.	All hazards	Marion Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Marion 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Marion Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Marion 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Marion Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Marion 6	Conduct a personal water use education program.	Drought	Marion Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Marion 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Marion Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Marion 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Marion Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Marion 9	Continue to participate meet requirements of the NFIP.	Flood	Marion NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Marion Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marion 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Marion Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
Marion 11	Clean and repair drainage ditches to maintain capacity.	Flood	Marion Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	New
Marion 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Marion Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Marion 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Marion Administration	Low	4	Staff Time	Local budgets	Five years	New
Marion 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Marion Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Marion 15	Create defensible space buffers at all critical facilities	Wildfire	Marion Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Marion 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Marion IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Marion 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Marion Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Peabody Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Peabody 1	Purchase and install critical facility backup generators.	All hazards	Peabody Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Peabody 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Peabody Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Peabody 3	Institute a tree trimming program near utility lines.	All hazards	Peabody Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Peabody 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Peabody Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Peabody 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Peabody Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Peabody 6	Conduct a personal water use education program.	Drought	Peabody Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Peabody 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Peabody Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Peabody 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Peabody Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Peabody 9	Continue to participate meet requirements of the NFIP.	Flood	Peabody NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Peabody Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Peabody 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Peabody Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
Peabody 11	Clean and repair drainage ditches to maintain capacity.	Flood	Peabody Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	New
Peabody 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Peabody Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Peabody 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Peabody Administration	Low	4	Staff Time	Local budgets	Five years	New
Peabody 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Peabody Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Peabody 15	Create defensible space buffers at all critical facilities	Wildfire	Peabody Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Peabody 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Peabody IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Peabody 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Peabody Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Ramona Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ramona 1	Purchase and install critical facility backup generators.	All hazards	Ramona Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Ramona 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Ramona Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Ramona 3	Institute a tree trimming program near utility lines.	All hazards	Ramona Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Ramona 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Ramona Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Ramona 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Ramona Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Ramona 6	Conduct a personal water use education program.	Drought	Ramona Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Ramona 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Ramona Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Ramona 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Ramona Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Ramona 9	Continue to participate meet requirements of the NFIP.	Flood	Ramona NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Ramona Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ramona 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Ramona Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
Ramona 11	Clean and repair drainage ditches to maintain capacity.	Flood	Ramona Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	New
Ramona 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Ramona Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Ramona 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Ramona Administration	Low	4	Staff Time	Local budgets	Five years	New
Ramona 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Ramona Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Ramona 15	Create defensible space buffers at all critical facilities	Wildfire	Ramona Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Ramona 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Ramona IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Ramona 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Ramona Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Tampa Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Tampa 1	Purchase and install critical facility backup generators.	All hazards	Tampa Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Tampa 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Tampa Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Tampa 3	Institute a tree trimming program near utility lines.	All hazards	Tampa Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Tampa 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Tampa Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Tampa 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Tampa Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Tampa 6	Conduct a personal water use education program.	Drought	Tampa Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Tampa 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Tampa Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Tampa 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Tampa Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Tampa 9	Continue to participate meet requirements of the NFIP.	Flood	Tampa NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Tampa Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Tampa 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Tampa Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	New
Tampa 11	Clean and repair drainage ditches to maintain capacity.	Flood	Tampa Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	New
Tampa 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Tampa Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Tampa 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Tampa Administration	Low	4	Staff Time	Local budgets	Five years	New
Tampa 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Tampa Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	New
Tampa 15	Create defensible space buffers at all critical facilities	Wildfire	Tampa Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Tampa 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Tampa IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Tampa 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Tampa Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Tabor College Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Tabor College 1	Vent hood in dining hall for fire suppression	All hazards	Tabor College President	High	1, 2	$20,000	HMGP, School budget	Five years	New
Tabor College 2	Magnetic locks and security cameras for all facilities	All hazards	Tabor College President	High	1, 2	$35,000	HMGP, School budget	Five years	New
Tabor College 3	Purchase and install facility backup generators.	All hazards	Tabor College President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	New
Tabor College 4	Construct safe rooms in all school buildings to required standards.	All hazards	Tabor College President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
Tabor College 5	Conduct hazard mitigation education programs for students.	All hazards	Tabor College President	Medium	1, 2, 3	$2,000	School Budget	As required	New
Tabor College 6	Conduct a xeriscaping program for all school facilities	Drought	Tabor College President	Low	1, 2	$10,000 -per location	HMGP, BRIC, School Budget	Ten years	New
Tabor College 7	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	Tabor College President	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
Tabor College 8	Construct rainwater gardens adjacent to paved areas.	Flood	Tabor College President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Tabor College 9	Conduct regular staff and student active shooter trainings.	Terrorism	Tabor College President	High	1, 2, 3	Location and size dependent	HMGP, BRIC, School Budget	As required	New

USD 397 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 397 1	Purchase and install facility backup generators.	All hazards	USD 397 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 397 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 397 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 397 3	Conduct hazard mitigation education programs for students.	All hazards	USD 397 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 397 4	Conduct a xeriscaping program for all school facilities	Drought	USD 397 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 397 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 397 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 397 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 397 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 397 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 397 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 397 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 397 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 397 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 397 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 398 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 398 1	Purchase and install facility backup generators.	All hazards	USD 398 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 398 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 398 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 398 3	Conduct hazard mitigation education programs for students.	All hazards	USD 398 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 398 4	Conduct a xeriscaping program for all school facilities	Drought	USD 398 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 398 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 398 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 398 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 398 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 398 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 398 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 398 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 398 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 398 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 398 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 408 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 408 1	Purchase and install facility backup generators.	All hazards	USD 408 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 408 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 408 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	Carried over due to lack of funding
USD 408 3	Lights at Crosswalks on old Hwy (Main & Freeborn, Elm & Main)	All Hazards	USD 408 Superintendent	High	1, 2	$10,000 per location	HMGP, BRIC, School budget	Ten years	New
USD 408 4	Conduct hazard mitigation education programs for students.	All hazards	USD 408 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 408 5	Conduct a xeriscaping program for all school facilities	Drought	USD 408 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 408 6	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 408 Superintendent	Low	1, 2	$30,000 per facility	HMGP, School Budget	Five years	New
USD 408 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 408 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 408 8	A backup road/bridge across the creek in town	Flood	USD 408 Superintendent	High	1, 2	$20,000 - $100,000	HMGP, BRIC, School budget	Ten years	New
USD 408 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 408 Superintendent	High	1, 2, 3	Location and size dependent	School Budget	As required	New
USD 408 10	Lighting upgrades around town and school	Terrorism	USD 408 Superintendent	High	1, 2	$20,000 - $100,000	HMGP, BRIC	Ten years	New

USD 410 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 410 1	Purchase and install facility backup generators.	All hazards	USD 410 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 410 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 410 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 410 3	Conduct hazard mitigation education programs for students.	All hazards	USD 410 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 410 4	Conduct a xeriscaping program for all school facilities	Drought	USD 410 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 410 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 410 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 410 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 410 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 410 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 410 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 410 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 410 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 410 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 410 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 411 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 411 1	Purchase and install facility backup generators.	All hazards	USD 411 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 411 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 411 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 411 3	Conduct hazard mitigation education programs for students.	All hazards	USD 411 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 411 4	Conduct a xeriscaping program for all school facilities	Drought	USD 411 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 411 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 411 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 411 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 411 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 411 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 411 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 411 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 411 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 411 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 411 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Marion County Special Education Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marion County Special Education 1	Purchase and install facility backup generators.	All hazards	Special Education Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Marion County Special Education 2	Construct safe rooms in all school buildings to required standards.	All hazards	Special Education Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
Marion County Special Education 3	Conduct hazard mitigation education programs for students.	All hazards	Special Education Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
Marion County Special Education 4	Conduct a xeriscaping program for all school facilities	Drought	Special Education Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
Marion County Special Education 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	Special Education Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
Marion County Special Education 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	Special Education Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
Marion County Special Education 7	Construct rainwater gardens adjacent to paved areas.	Flood	Special Education Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Marion County Special Education 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Special Education Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
Marion County Special Education 9	Conduct regular staff and student active shooter trainings.	Terrorism	Special Education Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Butler REC Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Butler REC 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	New
Butler REC 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Flint Hills REC Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Flint Hills REC 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Flint Hills REC 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New
Flint Hills REC 3	Marion County Reconductor Project. Retrofit existing electrical distributions systems that were constructed prior to current construction standards established by the cooperative and approved by FEMA Public Assistance Program.	Utility/ Infrastructure Failure	Director of Operations	High	1,2	$2,000,000	Local, Grant	Five years	Not started, lack of funding

Hillsboro Hospital Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hillsboro Hospital 1	Purchase and install facility backup generators.	All hazards	Hospital Director	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Hillsboro Hospital 2	Upgrade ventilation system throughout hospital	Transmissible disease	Hospital Director	High	1, 2	$100,000	HMGP, BRIC, System budgets	Five years	New
Hillsboro Hospital 3	Safe room/ shelter to be constructed, connected to, or close by the hospital facility	Tornado, Windstorms, Hail, Winter Storms	Hospital Director	High	1,2	$600,000	FEMA, Local	Five years	Carried over due to lack of funding

St. Luke Hospital Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
St. Luke Hospital 1	Purchase and install facility backup generators.	All hazards	Hospital Director	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
St. Luke Hospital 2	Upgrade ventilation system throughout hospital	Transmissible disease	Hospital Director	High	1, 2	$100,000	HMGP, BRIC, System budgets	Five years	New
Hillsboro Hospital 3	Safe room/ shelter to be constructed, connected to, or close by the hospital facility	Tornado, Windstorms, Hail, Winter Storms	Hospital Director	High	1,2	$600,000	FEMA, Local	Five years	Carried over due to lack of funding

Marion County RFD #1 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marion County RFD #1 1	Purchase and install facility backup generators.	All hazards	Marion County RFD #1 Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	New
Marion County RFD #1 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Marion County RFD #1 Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Marion County RFD #1 3	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	Marion County RFD #1 Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding

Marion County RFD #2 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marion County RFD #2 1	Purchase and install facility backup generators.	All hazards	Marion County RFD #2 Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	New
Marion County RFD #2 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Marion County RFD #2 Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Marion County RFD #2 3	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	Marion County RFD #2 Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding

Marion County RFD #5 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marion County RFD #5 1	Purchase and install facility backup generators.	All hazards	Marion County RFD #5 Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	New
Marion County RFD #5 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Marion County RFD #5 Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Marion County RFD #5 3	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	Marion County RFD #5 Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding

Marion County RFD #7 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marion County RFD #7 1	Purchase and install facility backup generators.	All hazards	Marion County RFD #7 Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	New
Marion County RFD #7 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Marion County RFD #7 Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Marion County RFD #7 3	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	Marion County RFD #7 Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding

Eastshore Water District Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Eastshore Water District 1	Purchase and install facility backup generators.	All hazards	Director of Operations	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	New
Eastshore Water District 2	Replace water lines at critical locations throughout service area.	Drought	Director of Operations	Medium	1,2	$105.00 an acre	Bric, HMGP, System budget	On going	New

Rural Water District 1 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rural Water District 1 1	Purchase and install facility backup generators.	All hazards	Director of Operations	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	New
Rural Water District 1 2	Replace water lines at critical locations throughout service area.	Drought	Director of Operations	Medium	1,2	$105.00 an acre	Bric, HMGP, System budget	On going	New

Hillsboro Industries Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hillsboro Industries 1	Purchase and install facility backup generators.	All hazards	Hillsboro Industries CEO	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	New

McPherson County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
McPherson County 1	Install generators in all county facilities.	All hazards	McPherson County Emergency Manager, McPherson County Facilities Department	High	1, 3	$10,000 to $50,000 per location	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
McPherson County 2	Upgrade and enhance sirens throughout county	All hazards	McPherson County Emergency Manager	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of funding
McPherson County 3	Purchase electronic mobile traffic notification signs.	All hazards	McPherson County Emergency Manager, McPherson County Public Works	Medium	1, 2	$35,000	HMGP, Jurisdiction budget	Five years	New
McPherson County 4	Conduct a regular tree trimming and tree wire installation program.	All hazards	McPherson County Emergency Manager	High	1, 2	$25,000 per occurrence	HMGP, BRIC, Jurisdiction budget	Five years	New
McPherson County 5	Conduct agricultural education program on water reduction methods.	Agricultural Infestation, Drought	McPherson County Emergency Manager	High	1, 3	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
McPherson County 6	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	McPherson County Emergency Manager	High	1, 2	Staff Time and $500	Jurisdiction budget	Five years	Carried over due to lack of staff
McPherson County 7	Install evacuation route and high ground signage in any high	Dam/Levee Failure	McPherson County	Medium	1, 2, 4	$5,000 per location	HMGP, Jurisdiction budget	Five years	New

McPherson County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
	hazard dam potential inundation areas.		Emergency Manager						
McPherson County 8	Map all infrastructure and facilities within dam inundation areas.	Dam/Levee Failure	McPherson County Emergency Manager	Medium	1, 2, 4	$10,000 per location	HMGP, Jurisdiction budget	Five years	New
McPherson County 9	Conduct a Xeriscaping program for all jurisdictional owned facilities	Drought	McPherson County Facilities Department	Low	1, 2	$5,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
McPherson County 10	Revise building codes to require low water flow toilets and faucets.	Drought	McPherson County Administration	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
McPherson County 11	Develop and recommend building code updates for seismic events	Earthquake	McPherson County Facilities Director	Low	1, 2	Staff time	Local budgets	Continuous	On-going
McPherson County 12	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	McPherson County Facilities Director	Low	1, 2	$25,000 per facility	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
McPherson County 13	Identify and prepare county building for usage as heat/cold shelters.	Extreme Temperatures	McPherson County Facilities Director	Low	1, 2	$2,000 per facility	BRIC, Jurisdiction budget	Five years	New
McPherson County 14	Continue to participate in, and enforce provisions of, NFIP.	Flood	NFIP Administrator	High	1, 2	Per property cost	Jurisdiction budget	On-going	On-going
McPherson County 15	Purchase and demolish flood prone properties	Flood	McPherson County Emergency Manager, NFIP Administrator	High	1, 2	Per property cost	FMA, HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding

McPherson County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
McPherson County 16	Conduct a flood insurance awareness program.	Flood	NFIP Administrator	High	1, 3	Staff Time	Jurisdiction budget	Five years	New
McPherson County 17	Construct rainwater retention/detention ponds at strategic locations.	Flood	NFIP Administrator, Public Works Director	Medium	1, 2	Facility size dependent	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
McPherson County 18	Procure permanent signage to warn of flood hazard areas.	Flood	NFIP Administrator, McPherson County Emergency Manager	Medium	1, 2	Location dependent	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
McPherson County 19	Install surge protectors in all jurisdictional facilities.	Severe Weather	McPherson County Facilities Director	Medium	1, 2	$10,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
McPherson County 20	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	McPherson County Facilities Director	Medium	1, 2	$50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
McPherson County 21	Construct community safe rooms throughout the county to required building standards	Severe Storms, Tornado	McPherson County Emergency Manager	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
McPherson County 22	Construct snow fences along major transportation routes.	Winter Storm	McPherson County Public Works Director	Low	1, 2	$25,000 - $100,000 per location	HMGP, PDM, Jurisdiction budget	Ten years	Carried over due to lack of funding
McPherson County 23	Insulate water lines in all jurisdictional facilities.	Winter Storm	McPherson County Building Director	Low	1, 2	$10,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding

McPherson County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
McPherson County 24	Increase public training on brush clearance to minimize fuel for wildland-urban interface fires	Wildfire	McPherson County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
McPherson County 25	Increase public and fire department training on wildland-urban interface fire prevention.	Wildfire	McPherson County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
McPherson County 26	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	McPherson County IT Director	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
McPherson County 27	Provide hazardous materials response training to first responders and emergency management staff.	Hazardous Materials Event	McPherson County Emergency Manager	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New
McPherson County 28	Identify and map all structurally deficient bridges.	Infrastructure Failure	McPherson County Public Works Director	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
McPherson County 29	Conduct active shooter drills and exercises for all county personnel.	Terrorism	County Sheriff's Office	Low	1, 2	Data size dependent	Local budgets	Five years	New
McPherson County 30	Purchase and install new epidemiological tracking software.	Transmissible Disease	County Health Department	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Canton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Canton 1	Purchase and install critical facility backup generators.	All hazards	Canton Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Canton 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Canton Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Canton 3	Institute a tree trimming program near utility lines.	All hazards	Canton Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Canton 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Canton Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Canton 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Canton Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Canton 6	Conduct a personal water use education program.	Drought	Canton Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Canton 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Canton Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Canton 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Canton Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Canton 9	Continue to participate meet requirements of the NFIP.	Flood	Canton NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Canton Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Canton 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Canton Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Canton 11	Clean and repair drainage ditches to maintain capacity.	Flood	Canton Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Canton 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Canton Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Canton 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Canton Administration	Low	4	Staff Time	Local budgets	Five years	New
Canton 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Canton Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Canton 15	Create defensible space buffers at all critical facilities	Wildfire	Canton Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Canton 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Canton IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Canton 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Canton Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Galva Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Galva 1	Purchase and install critical facility backup generators.	All hazards	Galva Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Galva 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Galva Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Galva 3	Institute a tree trimming program near utility lines.	All hazards	Galva Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Galva 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Galva Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Galva 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Galva Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Galva 6	Conduct a personal water use education program.	Drought	Galva Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Galva 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Galva Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Galva 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Galva Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Galva 9	Continue to participate meet requirements of the NFIP.	Flood	Galva NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Galva Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Galva 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Galva Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Galva 11	Clean and repair drainage ditches to maintain capacity.	Flood	Galva Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Galva 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Galva Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Galva 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Galva Administration	Low	4	Staff Time	Local budgets	Five years	New
Galva 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Galva Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Galva 15	Create defensible space buffers at all critical facilities	Wildfire	Galva Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Galva 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Galva IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Galva 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Galva Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Inman Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Inman 1	Purchase and install critical facility backup generators.	All hazards	Inman Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Inman 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Inman Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Inman 3	Institute a tree trimming program near utility lines.	All hazards	Inman Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Inman 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Inman Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Inman 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Inman Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Inman 6	Conduct a personal water use education program.	Drought	Inman Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Inman 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Inman Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Inman 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Inman Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Inman 9	Continue to participate meet requirements of the NFIP.	Flood	Inman NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Inman Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Inman 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Inman Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Inman 11	Clean and repair drainage ditches to maintain capacity.	Flood	Inman Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Inman 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Inman Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Inman 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Inman Administration	Low	4	Staff Time	Local budgets	Five years	New
Inman 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Inman Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Inman 15	Create defensible space buffers at all critical facilities	Wildfire	Inman Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Inman 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Inman IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Inman 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Inman Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Lindsborg Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lindsborg 1	Purchase and install critical facility backup generators.	All hazards	Lindsborg Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Lindsborg 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Lindsborg Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Lindsborg 3	Institute a tree trimming program near utility lines.	All hazards	Lindsborg Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Lindsborg 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Lindsborg Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Lindsborg 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Lindsborg Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Lindsborg 6	Conduct a personal water use education program.	Drought	Lindsborg Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Lindsborg 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Lindsborg Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lindsborg 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Lindsborg Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lindsborg 9	Continue to participate meet requirements of the NFIP.	Flood	Lindsborg NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Lindsborg Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lindsborg 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Lindsborg Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Lindsborg 11	Clean and repair drainage ditches to maintain capacity.	Flood	Lindsborg Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Lindsborg 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Lindsborg Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Lindsborg 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Lindsborg Administration	Low	4	Staff Time	Local budgets	Five years	New
Lindsborg 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Lindsborg Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Lindsborg 15	Create defensible space buffers at all critical facilities	Wildfire	Lindsborg Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Lindsborg 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Lindsborg IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Lindsborg 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Lindsborg Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Marquette Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marquette 1	Purchase and install critical facility backup generators.	All hazards	Marquette Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Marquette 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Marquette Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Marquette 3	Institute a tree trimming program near utility lines.	All hazards	Marquette Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Marquette 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Marquette Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Marquette 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Marquette Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Marquette 6	Conduct a personal water use education program.	Drought	Marquette Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Marquette 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Marquette Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Marquette 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Marquette Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Marquette 9	Continue to participate meet requirements of the NFIP.	Flood	Marquette NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Marquette Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Marquette 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Marquette Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Marquette 11	Clean and repair drainage ditches to maintain capacity.	Flood	Marquette Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Marquette 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Marquette Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Marquette 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Marquette Administration	Low	4	Staff Time	Local budgets	Five years	New
Marquette 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Marquette Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Marquette 15	Create defensible space buffers at all critical facilities	Wildfire	Marquette Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Marquette 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Marquette IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Marquette 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Marquette Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

McPherson Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
McPherson 1	Purchase and install critical facility backup generators.	All hazards	McPherson Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
McPherson 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	McPherson Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
McPherson 3	Institute a tree trimming program near utility lines.	All hazards	McPherson Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
McPherson 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	McPherson Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
McPherson 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	McPherson Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
McPherson 6	Conduct a personal water use education program.	Drought	McPherson Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
McPherson 7	Conduct public education campaign on home seismic retrofits.	Earthquake	McPherson Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
McPherson 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	McPherson Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
McPherson 9	Continue to participate meet requirements of the NFIP.	Flood	McPherson NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

McPherson Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
McPherson 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	McPherson Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
McPherson 11	Clean and repair drainage ditches to maintain capacity.	Flood	McPherson Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
McPherson 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	McPherson Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
McPherson 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	McPherson Administration	Low	4	Staff Time	Local budgets	Five years	New
McPherson 14	Construct community saferooms in select jurisdictional buildings.	Tornado	McPherson Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
McPherson 15	Create defensible space buffers at all critical facilities	Wildfire	McPherson Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
McPherson 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	McPherson IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
McPherson 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	McPherson Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Moundridge Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Moundridge 1	Purchase and install critical facility backup generators.	All hazards	Moundridge Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Moundridge 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Moundridge Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Moundridge 3	Institute a tree trimming program near utility lines.	All hazards	Moundridge Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Moundridge 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Moundridge Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Moundridge 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Moundridge Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Moundridge 6	Conduct a personal water use education program.	Drought	Moundridge Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Moundridge 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Moundridge Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Moundridge 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Moundridge Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Moundridge 9	Continue to participate meet requirements of the NFIP.	Flood	Moundridge NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Moundridge Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Moundridge 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Moundridge Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Moundridge 11	Clean and repair drainage ditches to maintain capacity.	Flood	Moundridge Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Moundridge 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Moundridge Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Moundridge 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Moundridge Administration	Low	4	Staff Time	Local budgets	Five years	New
Moundridge 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Moundridge Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Moundridge 15	Create defensible space buffers at all critical facilities	Wildfire	Moundridge Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Moundridge 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Moundridge IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Moundridge 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Moundridge Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Windom Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Windom 1	Purchase and install critical facility backup generators.	All hazards	Windom Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Windom 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Windom Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Windom 3	Institute a tree trimming program near utility lines.	All hazards	Windom Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Windom 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Windom Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Windom 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Windom Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Windom 6	Conduct a personal water use education program.	Drought	Windom Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Windom 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Windom Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Windom 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Windom Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Windom 9	Continue to participate meet requirements of the NFIP.	Flood	Windom NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Windom Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Windom 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Windom Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Windom 11	Clean and repair drainage ditches to maintain capacity.	Flood	Windom Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Windom 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Windom Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Windom 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Windom Administration	Low	4	Staff Time	Local budgets	Five years	New
Windom 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Windom Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Windom 15	Create defensible space buffers at all critical facilities	Wildfire	Windom Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Windom 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Windom IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Windom 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Windom Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Bethany College Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Bethany College 1	Purchase and install facility backup generators.	All hazards	Bethany College President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Bethany College 2	Construct safe rooms in all school buildings to required standards.	All hazards	Bethany College President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
Bethany College 3	Conduct hazard mitigation education programs for students.	All hazards	Bethany College President	Medium	1, 2, 3	$2,000	School Budget	As required	New
Bethany College 4	Conduct a xeriscaping program for all school facilities	Drought	Bethany College President	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
Bethany College 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	Bethany College President	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
Bethany College 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	Bethany College President	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
Bethany College 7	Construct rainwater gardens adjacent to paved areas.	Flood	Bethany College President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Bethany College 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Bethany College President	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
Bethany College 9	Conduct regular staff and student active shooter trainings.	Terrorism	Bethany College President	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Central Christian College of Kansas Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Central Christian College 1	Purchase and install facility backup generators.	All hazards	Central Christian College President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Central Christian College 2	Construct safe rooms in all school buildings to required standards.	All hazards	Central Christian College President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
Central Christian College 3	Conduct hazard mitigation education programs for students.	All hazards	Central Christian College President	Medium	1, 2, 3	$2,000	School Budget	As required	New
Central Christian College 4	Conduct a xeriscaping program for all school facilities	Drought	Central Christian College President	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
Central Christian College 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	Central Christian College President	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
Central Christian College 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures , Severe Winter Weather	Central Christian College President	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
Central Christian College 7	Construct rainwater gardens adjacent to paved areas.	Flood	Central Christian College President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Central Christian College 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Central Christian College President	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
Central Christian College 9	Conduct regular staff and student active shooter trainings.	Terrorism	Central Christian College President	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

McPherson College Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
McPherson College 1	Purchase and install facility backup generators.	All hazards	McPherson College President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
McPherson College 2	Construct safe rooms in all school buildings to required standards.	All hazards	McPherson College President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
McPherson College 3	Conduct hazard mitigation education programs for students.	All hazards	McPherson College President	Medium	1, 2, 3	$2,000	School Budget	As required	New
McPherson College 4	Conduct a xeriscaping program for all school facilities	Drought	McPherson College President	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
McPherson College 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	McPherson College President	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
McPherson College 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	McPherson College President	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
McPherson College 7	Construct rainwater gardens adjacent to paved areas.	Flood	McPherson College President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
McPherson College 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	McPherson College President	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
McPherson College 9	Conduct regular staff and student active shooter trainings.	Terrorism	McPherson College President	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

St. Joseph Catholic School Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
St. Joseph Catholic School 1	Purchase and install facility backup generators.	All hazards	St. Joseph President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
St. Joseph Catholic School 2	Construct safe rooms in all school buildings to required standards.	All hazards	St. Joseph President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
St. Joseph Catholic School 3	Conduct hazard mitigation education programs for students.	All hazards	St. Joseph President	Medium	1, 2, 3	$2,000	School Budget	As required	New
St. Joseph Catholic School 4	Conduct a xeriscaping program for all school facilities	Drought	St. Joseph President	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
St. Joseph Catholic School 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	St. Joseph President	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
St. Joseph Catholic School 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	St. Joseph President	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
St. Joseph Catholic School 7	Construct rainwater gardens adjacent to paved areas.	Flood	St. Joseph President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
St. Joseph Catholic School 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	St. Joseph President	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
St. Joseph Catholic School 9	Conduct regular staff and student active shooter trainings.	Terrorism	St. Joseph President	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 400 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 400 1	Purchase and install facility backup generators.	All hazards	USD 400 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 400 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 400 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 400 3	Conduct hazard mitigation education programs for students.	All hazards	USD 400 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 400 4	Conduct a xeriscaping program for all school facilities	Drought	USD 400 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 400 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 400 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 400 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 400 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 400 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 400 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 400 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 400 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 400 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 400 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 418 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 418 1	Purchase and install facility backup generators.	All hazards	USD 418 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 418 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 418 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 418 3	Conduct hazard mitigation education programs for students.	All hazards	USD 418 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 418 4	Conduct a xeriscaping program for all school facilities	Drought	USD 418 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 418 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 418 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 418 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 418 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 418 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 418 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 418 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 418 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 418 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 418 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 419 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 419 1	Purchase and install facility backup generators.	All hazards	USD 419 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 419 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 419 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 419 3	Conduct hazard mitigation education programs for students.	All hazards	USD 419 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 419 4	Conduct a xeriscaping program for all school facilities	Drought	USD 419 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 419 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 419 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 419 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 419 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 419 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 419 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 419 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 419 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 419 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 419 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 423 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 423 1	Purchase and install facility backup generators.	All hazards	USD 423 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 423 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 423 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 423 3	Conduct hazard mitigation education programs for students.	All hazards	USD 423 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 423 4	Conduct a xeriscaping program for all school facilities	Drought	USD 423 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 423 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 423 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 423 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 423 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 423 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 423 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 423 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 423 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 423 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 423 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 448 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 448 1	Purchase and install facility backup generators.	All hazards	USD 448 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 448 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 448 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 448 3	Conduct hazard mitigation education programs for students.	All hazards	USD 448 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 448 4	Conduct a xeriscaping program for all school facilities	Drought	USD 448 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 448 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 448 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 448 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 448 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 448 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 448 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 448 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 448 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 448 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 448 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Ark Valley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ark Valley Electric Cooperative 1	Replace and upgrade an undetermined number of miles of distribution line.	All hazards	Director of Operations	High	1, 2	$10,000,000	BRIC, System budget	Five years	Carried over due to lack of funding

DS&O Rural Electric Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
DS&O Rural Electric 1	Replace and upgrade an undetermined number of miles of distribution line.	All hazards	Director of Operations	High	1, 2	$10,000,000	BRIC, System budget	Five years	Carried over due to lack of funding

Flint Hills Electric Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Flint Hills Electric 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Flint Hills Electric 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Midwest Energy Inc. Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Midwest Energy Inc 1	Replace and upgrade an undetermined number of miles of distribution line.	All hazards	Director of Operations	High	1, 2	$10,000,000	BRIC, System budget	Five years	Carried over due to lack of funding

McPherson Board of Public Utilities Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
McPherson Board of Public Utilities 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding

Post Rock Rural Water District Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Post Rock Rural Water District 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Post Rock Rural Water District 2	Replace water lines at critical locations throughout service area.	Drought	Director of Operations	Medium	1,2	$105.00 an acre	Bric, HMGP, System budget	On going	New

Lindsborg Community Hospital Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lindsborg Community Hospital 1	Increase capacity of facility backup generators.	All hazards	Lindsborg Community Hospital Director	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Lindsborg Community Hospital 2	Install shatter resistant film on all facility windows	Severe Weather, Tornado, Wildfire	Lindsborg Community Hospital Director	High	1, 2	$100,000	HMGP, BRIC, System budgets	Five years	New
Lindsborg Community Hospital 3	Upgrade ventilation and filtration system.	Transmissible disease	Lindsborg Community Hospital Director	Medium	1, 2	$100,000	HMGP, System budget	Ten years	New

McPherson Hospital Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
McPherson Hospital 1	Increase capacity of facility backup generators.	All hazards	McPherson Hospital Director	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
McPherson Hospital 2	Install shatter resistant film on all facility windows	Severe Weather, Tornado, Wildfire	McPherson Hospital Director	High	1, 2	$100,000	HMGP, BRIC, System budgets	Five years	New
McPherson Hospital 3	Upgrade ventilation and filtration system.	Transmissible disease	McPherson Hospital Director	Medium	1, 2	$100,000	HMGP, System budget	Ten years	New

Mercy Hospital Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Mercy Hospital 1	Increase capacity of facility backup generators.	All hazards	Mercy Hospital Director	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Mercy Hospital 2	Install shatter resistant film on all facility windows	Severe Weather, Tornado, Wildfire	Mercy Hospital Director	High	1, 2	$100,000	HMGP, BRIC, System budgets	Five years	New
Mercy Hospital 3	Upgrade ventilation and filtration system.	Transmissible disease	Mercy Hospital Director	Medium	1, 2	$100,000	HMGP, System budget	Ten years	New

Reno County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Reno County 1	Provide mobile generators for water/wastewater system operations	All hazards	Reno County Public Works Director	High	1, 2	$50,000 each	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Reno County 2	Place emergency generators in all county fire stations	All hazards	County Fire District Chiefs	Low	1, 2	$400,000	BRIC/Local	Five Years	Carried over due to lack of funding
Reno County 3	Install generators in all county facilities.	All hazards	Reno County Emergency Manager, Reno County Facilities Director	High	1, 3	$100,000 to $200,000 per location	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Reno County 4	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	Reno County Emergency Manager	High	1, 2	Staff Time and $500	Jurisdiction budget	Five years	Carried over due to lack of staff
Reno County 5	Map all infrastructure and facilities within dam inundation areas.	Dam/Levee Failure	Reno County Emergency Manager	Medium	1, 2, 4	$10,000 per location	HMGP, Jurisdiction budget	Five years	New
Reno County 6	Conduct a Xeriscaping program for all jurisdictional owned facilities	Drought	Reno County Facilities Department	Low	1, 2	$5,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Reno County 7	Develop and recommend building code updates for seismic events	Earthquake	Reno County Facilities Director	Low	1, 2	Staff time	Local budgets	Continuous	On-going
Reno County 8	Coordinate with Red Cross/ Salvation Army during extreme temperature events	Extreme Temperatures	Emergency Management Director/ Director of Public Health	Low	1, 2, 4	Staff time	Staff time, Local budgets	On going	On going

Reno County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Reno County 9	Educate the public on the NFIP and flood insurance.	Flood	Floodplain Manager	Medium	1, 2, 3	Staff Time	Local budgets	On going	On going
Reno County 10	Investigate and update existing roadway overtopping design standards. (NFIP)	Flood	Reno County Public Works Director	Low	1, 2	Staff time	Staff time, local budgets	Five years	Carried over due to lack of funding
Reno County 11	Continue to participate in, and enforce provisions of, NFIP.	Flood	NFIP Administrator	High	1, 2	Per property cost	Local budgets	On-going	On-going
Reno County 12	Purchase and demolish flood prone properties	Flood	Reno County Emergency Manager, NFIP Administrator	High	1, 2	Per property cost	FMA, HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Reno County 13	Continue storm spotter training and CERT training	Severe Storms, Severe Winter Weather, Tornado	Reno County Emergency Manager	Medium	1, 3	Staff Time	Local budgets	On going	On going
Reno County 14	Educate the public on prescribed burns.	Wildfire	Reno County Emergency Manager	High	1, 2, 3	Staff time	Existing budget	On going	On going
Reno County 15	Identify potential additional water hydrant locations or other water sources	Wildfire	Reno County Fire Chiefs	High	1, 2	Staff time	Staff time, Local budgets	On going	On going
Reno County 16	Increase public and fire department training on wildland urban interface fires.	Wildfire	Reno County Emergency Manager	Medium	1, 2	Staff Time	KS Forest Service, State and Local budgets	On going	On going
Reno County 17	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Reno County Emergency Manager	Medium	1, 2	$1,400/ac	KS Forest Service, HMGP Fire	On going	On going
Reno County 18	Provide homeowner education on wildfire	Wildfire	County Fire Chiefs	Medium	1, 2, 3	Staff time/$500	KS Forest Service	On going	On going

Reno County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
	mitigation in wildland-urban interface.					per workshop			
Reno County 19	Install water supply systems at county fire stations.	Wildfire	County Fire District Chiefs	Low	1, 2	$200,000	BRIC/Local	Five Years	Carried over due to lack of funding
Reno County 20	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Reno County IT Director	Low	1, 2	Data size dependent	Local budgets	On going	On going
Reno County 21	Identify and map all structurally deficient bridges.	Infrastructure Failure	Reno County Public Works	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Reno County 22	Conduct active shooter drills and exercises for all county personnel.	Terrorism	Reno County Sheriff's Office	Low	1, 2	Data size dependent	Local budgets	Five years	New

Buhler Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Buhler1	Construct a community safe room.	Tornado, Severe weather, extreme temperature	City Administratio n	High	1, 2,	$1,000,000	Local, HMGP, BRIC	Five years	Not started lack of funding.
Buhler 2	Upgrade notification systems to expand coverage and capabilities	All hazards	City Administration	Medium	1, 2	$50000 annually	HMGP BRIC, Local budgets	As required	New
Buhler 3	**NFIP** Regulation Compliance. Comply with National Flood Insurance Program regulations by enforcing floodplain management regulations	Flood	City Staff	Medium	1, 2,	Staff time	Local budgets	On going	In process
Buhler 4	Purchase and install critical facility backup generators.	All hazards	City Administration	High	1, 2	Facility dependent	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding

Haven Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Haven 1	Purchase emergency power generator for community building shelter.	All hazards	City Administrator	Medium	1, 2,	$100000	Local, HMGP, BRIC	Five years	Not started lack of funding.
Haven 2	Upgrade notification systems to expand coverage and capabilities	All hazards	Haven Administration	High	1, 2	$50,000 annually	HMGP, BRIC, Local budgets	As required	New
Haven 3	Purchase cloud storage backup for all jurisdictional electronic records	Cybersecurity Incident	Haven Administration	Medium	1, 2,	Data size dependent	Local budgets	Five years	New

The Highlands Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
The Highlands 1	Purchase and install critical facility backup generators.	All hazards	The Highlands Administration	High	1, 2	$350,000	HMGP, Local budgets	Five years	Carried over due to lack of funding
The Highlands 2	Upgrade current outdoor warning devices from phone line to RF activation.	All hazards	The Highlands Administration	High	1, 2	$20,000 per device	HMGP, Local budgets	Five years	New
The Highlands 3	Provide and/ or require tree trimming/ maintenance training.	All hazards	The Highlands Administration	Medium	1, 2	$15,000	HMGP, Local Budgets	As required	New
The Highlands 4	Pursue funding to obtain NOAA All Hazards Weather Radios for residents.	All hazards	The Highlands Administration	Medium	1, 2	$40 per radio	HMGP, Local Budgets	Five years	New
The Highlands 5	Construct a city building capable for protecting assets out of the weather and under a locked facility, rather than continue parking outside.	All hazards	The Highlands Administration	High	1, 2	$60,000	HMGP, Local Budgets	Two years	New
The Highlands 6	Purchase of equipment to assist in removal of tree removal/debris, wildfire fuel reduction, winter weather snow/ice removal. Tractor/w bucket, grapple and snow blade, bat wing mower Woodchipper 7’ x 14’ trailer w36” side and hydraulic hoist.	All hazards	The Highlands Administration	High	1, 2	$92,833	HMGP, Local Budgets	Two years	New

The Highlands Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
The Highlands 7	Continue to participate meet requirements of the NFIP.	Flood	The Highlands NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
The Highlands 8	Construct community saferooms in select jurisdictional buildings.	Tornado	The Highlands Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
The Highlands 9	Educate public on prescribed burns	Wildfire	Council Chair	High	3	$500	Local budgets	As required	New
The Highlands 10	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Council Chair	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New

Hutchinson Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hutchinson 1	Purchase and install critical facility backup generators.	All hazards	Hutchinson Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Hutchinson 2	Institute a tree trimming program near utility lines.	All hazards	Hutchinson Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Hutchinson 3	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Hutchinson Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Hutchinson 4	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Hutchinson Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Hutchinson 5	Update water conservation ordinance	Drought	Hutchinson Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Hutchinson 6	Conduct public education campaign on home seismic retrofits.	Earthquake	Hutchinson Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Hutchinson 7	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Hutchinson Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Hutchinson 8	Continue to participate meet requirements of the NFIP.	Flood	Hutchinson NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Hutchinson Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hutchinson 9	Clean and repair drainage ditches to maintain capacity.	Flood	Hutchinson Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Hutchinson 10	Implement projects identified in the stormwater master plan	Flood	Hutchinson Administration	Low	1,2	Location and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Hutchinson 11	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Hutchinson Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Hutchinson 12	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Hutchinson Administration	Low	4	Staff Time	Local budgets	Five years	New
Hutchinson 13	Construct community saferooms in select jurisdictional buildings.	Tornado, Severe Weather	Hutchinson Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Hutchinson 14	Create defensible space buffers at all critical facilities	Wildfire	Hutchinson Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Hutchinson 15	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Hutchinson IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Hutchinson 16	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Hutchinson Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New
Hutchinson 17	Implement projects identified in the water master plan	Infrastructure failure/Loss of water service	Hutchinson Public Works	High	1, 2	Location, length and size dependent	HMGP, BRIC, Local budgets	On going	New

Nickerson Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Nickerson 1	Purchase and install critical facility backup generators.	All hazards	Nickerson Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Nickerson 2	Upgrade notification systems system to expand coverage and capabilities..	All hazards	Nickerson Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Nickerson 3	Institute a tree trimming program near utility lines.	All hazards	Nickerson Administration	Medium	1, 2	$50,000	HMGP, BRIC, Local Budgets	Five years	New
Nickerson 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Nickerson Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Nickerson 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Nickerson Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Nickerson 6	Conduct a personal water use education program.	Drought	Nickerson Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Nickerson 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Nickerson Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Nickerson 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Nickerson Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Nickerson 9	Continue to participate meet requirements of the NFIP.	Flood	Nickerson NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Nickerson Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Nickerson 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Nickerson Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Nickerson 11	Clean and repair drainage ditches to maintain capacity.	Flood	Nickerson Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Nickerson 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Nickerson Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Nickerson 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Nickerson Administration	Low	4	Staff Time	Local budgets	Five years	New
Nickerson 14	Seek funding for the design and construction of a community safe room.	Tornado	Nickerson Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Nickerson 15	Create defensible space buffers at all critical facilities	Wildfire	Nickerson Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Nickerson 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Nickerson IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New

Partridge Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Partridge 1	Purchase and install critical facility backup generators.	All hazards	Partridge Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Partridge 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Partridge Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Partridge 3	Institute a tree trimming program near utility lines.	All hazards	Partridge Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Partridge 4	Implement a public notification system for hazards and bad weather.	All hazards	Partridge Administration	Medium	1, 2, 3	$5,000	HMGP, Local budgets	Four years	New
Partridge 5	Provide public outreach and educational programs and materials about natural hazards.	All hazards	Partridge Administration	Medium	1, 2, 3	$2,000	HMGP, Local budgets	Two years	New
Partridge 6	Develop a plan for supporting medically fragile and special needs residents during emergency events.	All hazards	Partridge Administration	Medium	1, 2, 3	$1,000	HMGP, Local budgets	Four years	New
Partridge 7	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Partridge Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Partridge 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Partridge Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Partridge 9	Continue to participate meet requirements of the NFIP.	Flood	Partridge NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Partridge Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Partridge 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Partridge Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Partridge 11	Purchase and remove structures from floodplain.	Flood	Partridge Administration	Low	1, 2	Location, dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Partridge 12	Clean waterway ditches and resize/replace culverts to increase and/or maintain capacity.	Flood	Partridge Administration	Low	1, 2	Location, dependent	HMGP, BRIC, Local budgets	Five years	New
Partridge 13	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Partridge Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Partridge 14	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Partridge Administration	Low	4	Staff Time	Local budgets	Five years	New
Partridge 15	Construct community saferooms in select jurisdictional buildings.	Tornado	Partridge Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Partridge 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Partridge IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New

South Hutchinson Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
South Hutchinson 1	Purchase and install critical facility and major traffic light intersection backup generators.	All hazards	South Hutchinson Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
South Hutchinson 2	Identify and plan for evacuation of vulnerable populations.	All hazards	South Hutchinson Administration	High	1, 2	$10,000	Local budgets	As required	New
South Hutchinson 3	Develop a local mitigation plan including emergency operations procedure and critical facilities analysis.	All hazards	South Hutchinson Administration	Medium	1, 2	$15,000	HMGP, Local Budgets	Five years	New
South Hutchinson 4	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	South Hutchinson Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
South Hutchinson 5	Continue to participate meet requirements of the NFIP.	Flood	South Hutchinson NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
South Hutchinson 6	Construct rainwater retention/detention ponds at strategic locations.	Flood	South Hutchinson Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
South Hutchinson 7	Purchase and remove structures from floodplain.	Flood	South Hutchinson Administration	Medium	1, 2	Location, dependent	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
South Hutchinson 8	Acquire and permanently install flood mitigation pumps.	Flood	South Hutchinson Administration	High	1, 2	$1,500,000 - $3,000,000	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding

South Hutchinson Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
South Hutchinson 9	Construct community saferooms in select jurisdictional buildings.	Tornado	South Hutchinson Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Turon Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Turon 1	Acquire back-up power source for water wells and outdoor warning devices.	All hazards	Turon Administration	High	1, 2	Scale and design dependent	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Turon 2	Upgrade warning notification systems to expand coverage and capabilities.	All hazards	Turon Administration	High	1, 2	Scale and design dependent	HMGP, Local budgets	Five years	New
Turon 3	Acquire back-up power source for fire station and community shelter.	All hazards	Turon Administration	Medium	1, 2	Scale and design dependent	HMGP, BRIC, Local Budgets	Five years	New
Turon 4	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Turon IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New

Willowbrook Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Willowbrook 1	Purchase and install critical facility backup generators.	All hazards	Willowbrook Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Willowbrook 2	Design Storm Water Mitigation to meet 100yr Flood event and prevent loss of Sewer lift station	Flood, Utility/ Infrastructure Failure	Mayor	High	1,2	$416,000	Local Bond	December 2023	In process
Willowbrook 3	Install Storm water lift station south end of Levee	Flood	Mayor	High	1,2,3	$750,000	Local Bond, FMA, HMGP	April 2023	In process
Willowbrook 4	Install Sewer water lift station south end of Levee	Flood	Mayor	High	1,2,3	$250,000	Local Bond, FMA, HMGP	June 2023	In Process
Willowbrook 5	Installation of Center Trunkline to move water North to South lift station	Flood	Mayor	High	1,2	$280,000 per shelter	FMA HMGP	December 2024	Not started, lack of funding
Willowbrook 6	Installation of West Trunkline to move water North to South lift Station	Flood	Mayor	High	1,2	$300,000	HMGP, FMA	One year after funding availability	Not started, lack of funding
Willowbrook 7	Installation of East Trunkline to move water North to South lift Station	Flood	Mayor	High	1,2	$300,000	HMGP, FMA	One year after funding availability	Not started, lack of funding

Castleton Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Castleton Township 1	Maintain a program to keep ditches along roadways free from debris and sediment	Flood	Board Chair	High	1, 2	$8,000 yearly	HMGP, BRIC, Local budgets	Ongoing	Carried over due to lack of funding
Castleton Township 2	Grant funding to allow proper inspections, mediation, planning, and construction of ditches, pipes and build up surfaces of roadways to handle seasonal flooding	Flood	Board Chair	High	1, 2	$100,000	HMGP, Local budgets	Ten years	New
Castleton Township 14	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Grant Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Grant Township 1	Maintain a program to keep ditches along roadways free from debris and sediment	Flood	Board Chair	High	1, 2	$8,000 yearly	HMGP, BRIC, Local budgets	Ongoing	Carried over due to lack of funding
Grant Township 2	Grant funding to allow proper inspections, mediation, planning, and construction of ditches, pipes and build up surfaces of roadways to handle seasonal flooding	Flood	Board Chair	High	1, 2	$100,000	HMGP, Local budgets	Ten years	New
Grant Township 3	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Haven Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Haven Township 1	Construct a township building capable for protecting assets.	All hazards	Board Chair	High	1, 2	$100,000	HMGP, BRIC, Local budgets	Five years	New
Haven Township 2	Maintain a program to keep ditches along roadways free from debris and sediment	Flood	Board Chair	High	1, 2	$8,000 yearly	HMGP, BRIC, Local budgets	Ongoing	Carried over due to lack of funding
Haven Township 3	Grant funding to allow proper inspections, mediation, planning, and construction of ditches, pipes and build up surfaces of roadways to handle seasonal flooding	Flood	Board Chair	High	1, 2	$100,000	HMGP, Local budgets	Ten years	New
Haven Township 4	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Salt Creek Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Salt Creek Township 1	Construct a township building capable for protecting assets.	All hazards	Board Chair	High	1, 2	$100,000	HMGP, BRIC, Local budgets	Five years	New
Salt Creek Township 2	Maintain a program to keep ditches along roadways free from debris and sediment	Flood	Board Chair	High	1, 2	$8,000 yearly	HMGP, BRIC, Local budgets	Ongoing	Carried over due to lack of funding
Salt Creek Township 3	Grant funding to allow proper inspections, mediation, planning, and construction of ditches, pipes and build up surfaces of roadways to handle seasonal flooding	Flood	Board Chair	High	1, 2	$100,000	HMGP, Local budgets	Ten years	New
Salt Creek Township 4	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Sylvia Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sylvia Township 1	Construct a township building capable for protecting assets.	All hazards	Board Chair	High	1, 2	$100,000	HMGP, BRIC, Local budgets	Five years	New
Sylvia Township 2	Maintain a program to keep ditches along roadways free from debris and sediment	Flood	Board Chair	High	1, 2	$8,000 yearly	HMGP, BRIC, Local budgets	Ongoing	Carried over due to lack of funding
Sylvia Township 3	Grant funding to allow proper inspections, mediation, planning, and construction of ditches, pipes and build up surfaces of roadways to handle seasonal flooding	Flood	Board Chair	High	1, 2	$100,000	HMGP, Local budgets	Ten years	New
Sylvia Township 4	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Walnut Township Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Walnut Township 1	Maintain a program to keep ditches along roadways free from debris and sediment	Flood	Board Chair	High	1, 2	$8,000 yearly	HMGP, BRIC, Local budgets	Ongoing	Carried over due to lack of funding
Walnut Township 2	Grant funding to allow proper inspections, mediation, planning, and construction of ditches, pipes and build up surfaces of roadways to handle seasonal flooding	Flood	Board Chair	High	1, 2	$100,000	HMGP, Local budgets	Ten years	New
Walnut Township 3	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Board Chair	Low	1, 2	Data size dependent	Local budgets	Five years	New

Central Christian School Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Central Christian School 1	Purchase and install facility backup generators.	All hazards	Central Christian School President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Central Christian School 2	Construct safe rooms in all school buildings to required standards.	All hazards	Central Christian School President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
Central Christian School 3	Conduct hazard mitigation education programs for students.	All hazards	Central Christian School President	Medium	1, 2, 3	$2,000	School Budget	As required	New
Central Christian School 4	Conduct a xeriscaping program for all school facilities	Drought	Central Christian School President	Low	1, 2	$10,000 -per location	HMGP, BRIC, School Budget	Ten years	New
Central Christian School 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	Central Christian School President	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
Central Christian School 6	Construct rainwater gardens adjacent to paved areas.	Flood	Central Christian School President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Central Christian School 7	Conduct regular staff and student active shooter trainings.	Terrorism	Central Christian School President	High	1, 2, 3	Location and size dependent	HMGP, BRIC, School Budget	As required	New

Holy Cross School Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Holy Cross School 1	Purchase and install facility backup generators.	All hazards	Holy Cross School President	High	1, 2	$100,000	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Holy Cross School 2	Update security cameras and systems	All hazards	Holy Cross School President	Medium	1, 2	$25,000	HMGP, BRIC, School Budget	As required	New
Holy Cross School 3	Conduct regular staff and student active shooter trainings.	Terrorism	Holy Cross School President	High	1, 2, 3	Location and size dependent	HMGP, BRIC, School Budget	As required	New

Hutchinson Community College Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hutchinson Community College 1	Purchase and install facility backup generators.	All hazards	Hutchinson Community College President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Hutchinson Community College 2	Construct safe rooms in all school buildings to required standards.	All hazards	Hutchinson Community College President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
Hutchinson Community College 3	Conduct hazard mitigation education programs for students.	All hazards	Hutchinson Community College President	Medium	1, 2, 3	$2,000	School Budget	As required	New
Hutchinson Community College 4	Conduct a xeriscaping program for all school facilities	Drought	Hutchinson Community College President	Low	1, 2	$10,000 -per location	HMGP, BRIC, School Budget	Ten years	New
Hutchinson Community College 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	Hutchinson Community College President	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
Hutchinson Community College 6	Construct rainwater gardens adjacent to paved areas.	Flood	Hutchinson Community College President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Hutchinson Community College 7	Conduct regular staff and student active shooter trainings.	Terrorism	Hutchinson Community College President	High	1, 2, 3	Location and size dependent	HMGP, BRIC, School Budget	As required	New

USD 309 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 309 1	Safe room at Nickerson High School	All hazards	USD 309 Superintendent	High	1, 2	$1,000,000	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 309 2	Ballistic entries at all locations	All hazards	USD 309 Superintendent	High	1, 2	$200,000-per location	HMGP, BRIC, School budget	Five years	New
USD 309 3	Backup generators at all locations	All hazards	USD 309 Superintendent	Medium	1, 2, 3	$100,000 per location	School Budget	Five years	New
USD 309 4	Reconfigure bus, parking and building access at Nickerson High School and South Hutch Elementary	Severe Weather, Winter Weather, Tornado	USD 309 Superintendent	Medium	1, 2	$2,000,000	HMGP, BRIC, School Budget	Five years	New
USD 309 5	Upgrading intercom system district wide so all classrooms can hear announcement	All hazards	USD 309 Superintendent	Medium	1, 2	$200,000 - $300,000	HMGP, BRIC, School Budget	Five years	New

USD 310 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 310 1	Purchase and install facility backup generators.	All hazards	USD 310 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 310 2	Construct safe rooms in all school buildings to required standards.	Severe Weather, Winter Weather, Tornado	USD 310 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Five years	New
USD 310 3	Install ballistic entries at all locations.	Severe Weather, Winter Weather, Tornado, Terrorism	USD 310 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, BRIC, School Budget	Five years	New

USD 312 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 312 1	Purchase and install facility backup generators.	All hazards	USD 312 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 312 2	Construct safe rooms in all school buildings to required standards.	Severe Weather, Winter Weather, Tornado	USD 312 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Five years	New
USD 312 3	Install ballistic entries at all locations.	Severe Weather, Winter Weather, Tornado, Terrorism	USD 312 Superintendent	High	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Five years	New
USD 312 4	Update entrances for greater security.	Terrorism	USD 312 Superintendent	High	1, 2	Location and size dependent	HMGP, BRIC, School Budget	Five years	New

USD 313 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 313 1	Provide safe rooms at all district owned facilities	Terrorism, Severe Weather, Tornado	USD 313 Superintendent	High	1, 2	$1,000,000per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 313 2	Ballistic entries at all locations	Severe Weather, Winter Weather, Tornado, Terrorism	USD 313 Superintendent	High	1, 2	$200,000 per location	HMGP, BRIC, School budget	Five years	New
USD 313 3	Create defensible space buffers at wildfire risk facilities to include landscaping and sprinklers	Wildfire	USD 313 Superintendent	Medium	1, 2, 3	$2,000,000	School Budget	Five years	New
USD 313 4	Upgrade/improve communication systems – intercoms, busing radios, staff/student applications, outdoor facilities so that announcements be heard throughout the district	All Hazards	USD 313 Superintendent	Low	1, 2	$200,000 to $300,000	HMGP, BRIC, School Budget	Ten years	New
USD 313 5	Provide an evacuation/recovery center in the community	All Hazards	USD 313 Superintendent	Low	1, 2	$100,000	HMGP, BRIC, School Budget	Five years	New

Hutchinson Correctional Facility Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hutchinson Correctional Facility 1	Purchase central unit taut wire early warning escape fence system.	All hazards	KDOC Maintenance	High	1, 2, 3, 4	$360,000	Local, HMGP	Three years	Completed and being upgraded.
Hutchinson Correctional Facility 2	Purchase and install facility backup generators.	All hazards	Hutchinson Correctional Facility Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Hutchinson Correctional Facility 3	Build a new prison	All hazards	Kansas Governor and Legislature	High	1, 2,3,4	$377,000,000	BRIC, System budgets	Five years	Proposal and approval stage.

Hutchinson Regional Medical Center Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Hutchinson Regional Medical Center1	Safe room/shelter to be constructed, connected to, or close by the hospital facility	Severe Weather, Winter Weather, Tornado, Terrorism	Hospital Director	High	1, 2	$600,000	HMGP, BRIC, System budgets	Five years	New
Hutchinson Regional Medical Center2	Upgrade and Installation of emergency generators for all hospital buildings	All hazards	Hospital Director	Medium	1, 2	$350,000	HMGP, BRIC, System budgets	Five years	New
Hutchinson Regional Medical Center2	Place hospital generators in series	All hazards	Hospital Director	High		$1,600,000	HMGP, BRIC, System budgets	Five years	New

Ark Valley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ark Valley Electric Cooperative 1	Huntsville: Rebuild 0.7 mi 3 ph cwc as 3 ph #2 ACSR, from 25-9-16-120 to 25-9- 16-40. Rebuild 0.7 mi 3 ph cwc between ACSR line, in existing ROW. Copperweld between ACSR. Just downline from Fairfield school. Serves about 6 miles/ 15 meters, mostly irrigation, some oil & gas.	Utility/ Infrastructure Failure	Director Operations	High	1,2	$60,000	HMGP	Within Five years	Not started, lack of funding
Ark Valley Electric Cooperative 2	Huntsville: Rebuild 1.0 mi 3 ph cwc as 3 ph #2 ACSR, from 25-9-10-160 to 25-9- 15-160. Rebuild 1.0 mi 3 ph cwc between ACSR lines, in existing ROW. Copperweld between ACSR. Serves Fairfield School & pivots, wells, about 19 miles & 33 meters. Has ten steel poles with arms, raptor hazard.	Utility/ Infrastructure Failure	Director of Operations	High	1,2	$85.000	HMGP	Within Five years	Not started, lack of funding

Ark Valley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ark Valley Electric Cooperative 3	Huntsville: Rebuild 1.1 mi 3 ph cwc as 3 ph #2 ACSR, from 25-9-22-40 to 25-9-16-130. Rebuild 1.1 mi 3 ph cwc between ACSR lines, in existing ROW. Copperweld between ACSR. Includes tap around Fairfield School, serves them & pivots, wells, about 17 miles & 30 meters. Would remove large cottonwoods @ 25-9-16-140 that are too close for being so tall.	Utility/ Infrastructure Failure	Director of Operations	High	1,2	$97,000	HMGP	Within Five years	Not started, lack of funding
Ark Valley Electric Cooperative 4	Noblesville: Rebuild 1.0 mi 1 ph cwc as 1 ph #2 ACSR, from 22-7-33-40 to 22- 7-33-130. Rebuild 1.0 mi 1 ph cwc between ACSR lines, in existing ROW, including through yard at north end. Copperweld between ACSR. North end goes behind trees	Utility/ Infrastructure Failure	Director of Operations	High	1,2	$49,000	HMGP	Within Five years	Not started, lack of funding

Ark Valley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
	through yard, is still the best path About 10 miles/ 30 meters downline, all ACSR.								
Ark Valley Electric Cooperative 5	Medora: Rebuild 2.3 mi 3 ph cwc as 3 ph 1/ 0 ACSR from 21-4-22-80 to 21-4- 3-160. Rebuild 2.3 mi 3 ph cwc between 1/ 0 ACSR lines, in existing ROW.	Utility/ Infrastructure Failure	Director of Operations	High	1,2	$203,000	HMGP	Within Five years	Not started, lack of funding
Ark Valley Electric Cooperative 6	Medora: convert .5 mi of URD	Utility/ Infrastructure Failure	Director of Operations	High	1,2	$65,000	HMGP	Within Five years	Not started, lack of funding
Ark Valley Electric Cooperative 7	Relocate Pretty Prairie substation	Utility/ Infrastructure Failure	Director of Operations	High	1,2	$600,000	HMGP	Within Five years	Not started, lack of funding

Midwest Energy Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Midwest Energy 1	Retrofit existing electrical distributions systems that were constructed prior to current construction standards established by the cooperative and approved by FEMA Public Assistance Program.	Utility/ Infrastructure Failure	Director of Operations	High	1, 2,	$2,000,000	System Budget, BRIC	Five Years	On going

Sunflower Electric Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sunflower Electric 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Sunflower Electric 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Drainage District #2 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Drainage District of #2 of Reno, McPherson, Harvey-1	Maintain correct level of Dike. Raising low levels to correct height.	Flood, Dam and Levee Failure	Drainage District Board Chair	High	1,2	$80,000	Local, PDM, HMGP	Three years	New

Reno County Drainage District #3 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Reno County Drainage District #3 1	Conduct levee stabilization-Mile 1 through Mile 9.	Flood, Dam and Levee Failure	Board Member	High	1,2	Portion of existing $175,000	Local, Bond	Five years	Not started, lack of funding
Reno County Drainage District #3 2	Development of an emergency management program	Flood, Dam and Levee Failure	Board Member	High	1,2	$1,000	Local	Two years	Not started, lack of funding
Reno County Drainage District #3 3	Conduct levee repairs and improvements.	Flood, Dam and Levee Failure	Board Member	High	1,2	$500,000	Local, HMGP, BRIC	Ongoing	On going
Reno County Drainage District #3 4	Raise and widen existing levee.	Flood, Dam and Levee Failure	Board Member	High	1,2	$200,000	Local, HMGP	Five years	Not started, lack of funding

Rice County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rice County 1	Install generators in all county facilities.	All hazards	Rice County Emergency Manager, Rice County Facilities Department	High	1, 3	$10,000 to $50,000 per location	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Rice County 2	Upgrade and enhance sirens throughout county	All hazards	Rice County Emergency Manager	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of funding
Rice County 3	Purchase electronic mobile traffic notification signs.	All hazards	Rice County Emergency Manager, Rice County Public Works	Medium	1, 2	$35,000	HMGP, Jurisdiction budget	Five years	New
Rice County 4	Conduct a regular tree trimming and tree wire installation program.	All hazards	Rice County Emergency Manager	High	1, 2	$25,000 per occurrence	HMGP, BRIC, Jurisdiction budget	Five years	New
Rice County 5	Conduct agricultural education program on water reduction methods.	Agricultural Infestation, Drought	Rice County Emergency Manager	High	1, 3	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Rice County 6	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	Rice County Emergency Manager	High	1, 2	Staff Time and $500	Jurisdiction budget	Five years	Carried over due to lack of staff
Rice County 7	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Rice County Emergency Manager	Medium	1, 2, 4	$5,000 per location	HMGP, Jurisdiction budget	Five years	New
Rice County 8	Map all infrastructure and facilities within dam inundation areas.	Dam/Levee Failure	Rice County Emergency Manager	Medium	1, 2, 4	$10,000 per location	HMGP, Jurisdiction budget	Five years	New

Rice County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rice County 9	Conduct a Xeriscaping program for all jurisdictional owned facilities	Drought	Rice County Facilities Department	Low	1, 2	$5,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Rice County 10	Revise building codes to require low water flow toilets and faucets.	Drought	Rice County Administration	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Rice County 11	Develop and recommend building code updates for seismic events	Earthquake	Rice County Facilities Director	Low	1, 2	Staff time	Local budgets	Continuous	On-going
Rice County 12	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	Rice County Facilities Director	Low	1, 2	$25,000 per facility	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Rice County 13	Identify and prepare county building for usage as heat/cold shelters.	Extreme Temperatures	Rice County Facilities Director	Low	1, 2	$2,000 per facility	BRIC, Jurisdiction budget	Five years	New
Rice County 14	Continue to participate in, and enforce provisions of, NFIP.	Flood	NFIP Administrator	High	1, 2	Per property cost	Jurisdiction budget	On-going	On-going
Rice County 15	Purchase and demolish flood prone properties	Flood	Rice County Emergency Manager, NFIP Administrator	High	1, 2	Per property cost	FMA, HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Rice County 16	Conduct a flood insurance awareness program.	Flood	NFIP Administrator	High	1, 3	Staff Time	Jurisdiction budget	Five years	New
Rice County 17	Construct rainwater retention/detention ponds at strategic locations.	Flood	NFIP Administrator, Public Works Director	Medium	1, 2	Facility size dependent	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding

Rice County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rice County 18	Procure permanent signage to warn of flood hazard areas.	Flood	NFIP Administrator, Rice County Emergency Manager	Medium	1, 2	Location dependent	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Rice County 19	Install surge protectors in all jurisdictional facilities.	Severe Weather	Rice County Facilities Director	Medium	1, 2	$10,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Rice County 20	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	Rice County Facilities Director	Medium	1, 2	$50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Rice County 21	Construct community safe rooms throughout the county to required building standards	Severe Storms, Tornado	Rice County Emergency Manager	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Rice County 22	Construct snow fences along major transportation routes.	Winter Storm	Rice County Public Works Director	Low	1, 2	$25,000 - $100,000 per location	HMGP, PDM, Jurisdiction budget	Ten years	Carried over due to lack of funding
Rice County 23	Insulate water lines in all jurisdictional facilities.	Winter Storm	Rice County Building Director	Low	1, 2	$10,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Rice County 24	Increase public training on brush clearance to minimize fuel for wildland-urban interface fires	Wildfire	Rice County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
Rice County 25	Increase public and fire department training on wildland-urban interface fire prevention.	Wildfire	Rice County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding

Rice County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Rice County 26	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Rice County IT Director	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Rice County 27	Provide hazardous materials response training to first responders and emergency management staff.	Hazardous Materials Event	Rice County Emergency Manager	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New
Rice County 28	Identify and map all structurally deficient bridges.	Infrastructure Failure	Rice County Public Works Director	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Rice County 29	Conduct active shooter drills and exercises for all county personnel.	Terrorism	Rice County Sheriff	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Rice County 30	Purchase and install new epidemiological tracking software.	Transmissible Disease	Rice County Health Department Director	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New

Chase Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Chase 1	Purchase and install critical facility backup generators.	All hazards	Chase Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Chase 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Chase Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Chase 3	Institute a tree trimming program near utility lines.	All hazards	Chase Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Chase 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Chase Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Chase 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Chase Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Chase 6	Conduct a personal water use education program.	Drought	Chase Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Chase 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Chase Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Chase 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Chase Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Chase 9	Continue to participate meet requirements of the NFIP.	Flood	Chase NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Chase Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Chase 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Chase Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Chase 11	Clean and repair drainage ditches to maintain capacity.	Flood	Chase Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Chase 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Chase Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Chase 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Chase Administration	Low	4	Staff Time	Local budgets	Five years	New
Chase 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Chase Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Chase 15	Create defensible space buffers at all critical facilities	Wildfire	Chase Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Chase 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Chase IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Chase 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Chase Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Little River Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Little River 1	Purchase and install critical facility backup generators.	All hazards	Little River Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Little River 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Little River Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Little River 3	Institute a tree trimming program near utility lines.	All hazards	Little River Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Little River 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Little River Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Little River 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Little River Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Little River 6	Conduct a personal water use education program.	Drought	Little River Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Little River 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Little River Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Little River 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Little River Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Little River 9	Continue to participate meet requirements of the NFIP.	Flood	Little River NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Little River Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Little River 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Little River Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Little River 11	Clean and repair drainage ditches to maintain capacity.	Flood	Little River Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Little River 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Little River Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Little River 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Little River Administration	Low	4	Staff Time	Local budgets	Five years	New
Little River 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Little River Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Little River 15	Create defensible space buffers at all critical facilities	Wildfire	Little River Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Little River 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Little River IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Little River 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Little River Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Lyons Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lyons 1	Purchase and install critical facility backup generators.	All hazards	Lyons Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Lyons 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Lyons Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Lyons 3	Institute a tree trimming program near utility lines.	All hazards	Lyons Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Lyons 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Lyons Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Lyons 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Lyons Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Lyons 6	Conduct a personal water use education program.	Drought	Lyons Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Lyons 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Lyons Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lyons 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Lyons Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Lyons 9	Continue to participate meet requirements of the NFIP.	Flood	Lyons NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Lyons Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Lyons 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Lyons Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Lyons 11	Clean and repair drainage ditches to maintain capacity.	Flood	Lyons Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Lyons 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Lyons Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Lyons 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Lyons Administration	Low	4	Staff Time	Local budgets	Five years	New
Lyons 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Lyons Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Lyons 15	Create defensible space buffers at all critical facilities	Wildfire	Lyons Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Lyons 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Lyons IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Lyons 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Lyons Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Sterling Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sterling 1	Purchase and install critical facility backup generators.	All hazards	Sterling Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Sterling 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Sterling Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Sterling 3	Institute a tree trimming program near utility lines.	All hazards	Sterling Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Sterling 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Sterling Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Sterling 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Sterling Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sterling 6	Conduct a personal water use education program.	Drought	Sterling Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Sterling 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Sterling Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Sterling 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Sterling Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Sterling 9	Continue to participate meet requirements of the NFIP.	Flood	Sterling NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Sterling Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sterling 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Sterling Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Sterling 11	Clean and repair drainage ditches to maintain capacity.	Flood	Sterling Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sterling 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Sterling Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Sterling 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Sterling Administration	Low	4	Staff Time	Local budgets	Five years	New
Sterling 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Sterling Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sterling 15	Create defensible space buffers at all critical facilities	Wildfire	Sterling Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Sterling 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Sterling IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Sterling 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Sterling Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

USD 405 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 405 1	Purchase and install facility backup generators.	All hazards	USD 405 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 405 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 405 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 405 3	Conduct hazard mitigation education programs for students.	All hazards	USD 405 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 405 4	Conduct a xeriscaping program for all school facilities	Drought	USD 405 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 405 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 405 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 405 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 405 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 405 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 405 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 405 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 405 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 405 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 405 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Ark Valley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Ark Valley Electric Cooperative 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Ark Valley Electric Cooperative 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Sunflower Electric Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sunflower Electric 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Sunflower Electric 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Sedgwick County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick County 1	Install generators in all county facilities.	All hazards	Sedgwick County Emergency Manager, Sedgwick County Facilities Department	Medium	1	$10,000 to $50,000 per location	HMGP, BRIC, Local budgets	Ten years	Ongoing as funding allows.
Sedgwick County 2	Conduct agricultural education program on water reduction methods.	Agricultural Infestation, Drought	Sedgwick County Emergency Manager	Medium	1, 3	Staff Time	Local budgets	Five years	New
Sedgwick County 3	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	Sedgwick County Emergency Manager	Medium	1, 3	Staff Time and $500	Local budgets	Five years	New
Sedgwick County 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Sedgwick County Emergency Manager	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Sedgwick County 5	Conduct a Xeriscaping program for all jurisdictional owned facilities	Drought	Sedgwick County Facilities Department	Low	1	$5,000 - $50,000 per location	HMGP, BRIC, Local budgets	Five years	New
Sedgwick County 6	Revise building codes to require low water flow toilets and faucets.	Drought	Sedgwick County Administration	High	1	Staff Time	Local budgets	Five years	New
Sedgwick County 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Sedgwick County Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff

Sedgwick County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick County 8	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	Sedgwick County Facilities Department	Low	1, 2	$25,000 per facility	HMGP, BRIC, Local budgets	Five years	New
Sedgwick County 9	Coordinate with VOADs to validate and maintain shelter list.	Extreme Temperatures	Emergency Manager and VOADs	Low	2,3	Staff Time	BRIC, Local budgets	Ongoing	New
Sedgwick County 10	Continue to participate in, and enforce provisions of, NFIP.	Flood	NFIP Administrator	High	1, 2	Per property cost	Local budgets	On-going	On-going
Sedgwick County 11	Purchase and demolish flood prone properties	Flood	Sedgwick County Emergency Manager, NFIP Administrator	Low	1, 2	Per property cost	FMA, HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Sedgwick County 12	Conduct a flood insurance awareness program.	Flood	NFIP Administrator	High	1, 3	Staff Time	Local budgets	On-going	On-going
Sedgwick County 13	Upgrade/ Improve Storm Water Management systems.	Flood	Sedgwick County Public Works	Medium	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	On-going	New
Sedgwick County 14	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	Sedgwick County Facilities Department	Medium	1, 2	$50,000 per location	HMGP, BRIC, Local budgets	Five years	New
Sedgwick County 15	Construct community safe rooms throughout the county to required building standards	Severe Weather, Tornado	Sedgwick County Emergency Manager	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Sedgwick County 16	Conduct a regular tree trimming and tree wire installation program.	Severe Storms, Tornado, Winter Storm	Sedgwick County Public Works	High	1	$25,000 per occurrence	HMGP, BRIC, Local Budgets	Five years	New

Sedgwick County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick County 17	Construct snow fences along major transportation routes.	Severe Winter Weather	Sedgwick County Public Works	Low	1	$25,000 - $100,000 per location	HMGP, PDM, Local budgets	Ten years	New
Sedgwick County 18	Outdoor warning replacement program.	Tornado	Sedgwick County Emergency Manager	High	1, 2	$2.5 Million	Local budget, capital improve program	Four years	In Progress
Sedgwick County 19	Increase public training on brush clearance to minimize fuel for wildland-urban interface fires	Wildfire	Sedgwick County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
Sedgwick County 20	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Sedgwick County IT Department	Low	2	Data size dependent	Local budgets	Five years	New
Sedgwick County 21	Create and maintain cyber incident response plan	Cybersecurity Incident	Sedgwick County IT Department	High	3,4	Staff Time	Local budgets	Ongoing	New
Sedgwick County 22	Transition to multi-factor authentication	Cybersecurity Incident	Sedgwick County IT Department	Medium	1,2	TBD	Local budgets	TBD	New
Sedgwick County 23	Create and maintain a backup county communications website outside of county domain.	Cybersecurity Incident	Sedgwick County IT Department	High	1,3,4	TBD	Local budgets	TBD	New
Sedgwick County 24	Identify key email addresses, create and maintain alternate email addresses on an outside domain	Cybersecurity Incident	Sedgwick County IT Department	High	1,3,4	TBD	Local budgets	TBD	New

Sedgwick County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick County 25	Identify key telephone numbers to auto forward in the event of a cyber incident	Cybersecurity Incident	Sedgwick County IT Department	High	1,3,4	Staff Time	Local budgets	TBD	New
Sedgwick County 26	Install and upgrade vehicle barriers around critical facilities.	Terrorism	Sedgwick County Facilities Department	Low	1,2	TBD	Local Budget	TBD	New
Sedgwick County 27	Assess internal facility security. Install camera, automatic locks and upgrade barriers as needed	Terrorism	Sedgwick County Facilities Department	Low	2	TBD	Local Budget	TBD	New
Sedgwick County 28	EOC and emergency supply warehouse construction project	All Hazards	SCEM	Medium	1,3,4	$14Millon	BRIC, Local Budget	Three Years	Applying for funding.
Sedgwick County 29	Conduct Commodity Flow Survey	Hazardous Materials Event	Sedgewick County LEPC	Medium	1,3	TBD	TBD	One Year	New
Sedgwick County 30	Improvements to HAZMAT training facilities	Hazardous Materials Event	Sedgewick County LEPC	Medium	3	TBD	TBD	Ongoing	New
Sedgwick County 31	Extend Pandemic Era PPE stockpile	Transmissible Disease	SCEM	High	1	$120,000 Annually	TBD	Ongoing	Projected, searching for new funding sources.
Sedgwick County 32	Revise COOP plans for all county departments	All Hazards	SCEM. Department Staffs	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Andale Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Andale 1	Purchase and install critical facility backup generators.	All hazards	Andale Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Andale 2	Institute a tree trimming program near utility lines.	All hazards	Andale Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Andale 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Andale Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Andale 4	Conduct a personal water use education program.	Drought	Andale Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Andale 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Andale Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Andale 6	Continue to participate meet requirements of the NFIP.	Flood	Andale NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Andale 7	Upgrade/ Improve Storm Water Management systems.	Flood	Andale Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Andale 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Andale Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Andale 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Andale Administration	Low	4	Staff Time	Local budgets	Five years	New
Andale 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Andale Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Andale Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Andale 11	Create defensible space buffers at all critical facilities	Wildfire	Andale Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Andale 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Andale IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Andale 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Andale Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Andale 14	Revise Continuity Plans	All Hazards	Andale Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Bel Aire Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Bel Aire 1	Purchase and install critical facility backup generators.	All hazards	Bel Aire Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Bel Aire 2	Institute a tree trimming program near utility lines.	All hazards	Bel Aire Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Bel Aire 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Bel Aire Administration	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Bel Aire 4	Conduct a personal water use education program.	Drought	Bel Aire Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Bel Aire 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Bel Aire Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Bel Aire 6	Continue to participate meet requirements of the NFIP.	Flood	Bel Aire NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Bel Aire 7	Upgrade/ Improve Storm Water Management systems.	Flood	Bel Aire Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Bel Aire 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Bel Aire Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Bel Aire 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Bel Aire Administration	Low	4	Staff Time	Local budgets	Five years	New
Bel Aire 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Bel Aire Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Bel Air Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Bel Aire 11	Create defensible space buffers at all critical facilities	Wildfire	Bel Aire Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Bel Aire 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Bel Aire IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Bel Aire 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Bel Aire Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Bel Aire 14	Revise Continuity Plans	All Hazards	Bel Aire Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Bently Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Bentley 1	Purchase and install critical facility backup generators.	All hazards	Bentley Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Bentley 2	Institute a tree trimming program near utility lines.	All hazards	Bentley Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Bentley 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Bentley Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Bentley 4	Conduct a personal water use education program.	Drought	Bentley Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Bentley 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Bentley Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Bentley 6	Continue to participate meet requirements of the NFIP.	Flood	Bentley NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Bentley 7	Upgrade/ Improve Storm Water Management systems.	Flood	Bentley Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Bentley 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Bentley Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Bentley 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Bentley Administration	Low	4	Staff Time	Local budgets	Five years	New
Bentley 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Bentley Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Bentley Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Bentley 11	Create defensible space buffers at all critical facilities	Wildfire	Bentley Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Bentley 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Bentley IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Bentley 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Bentley Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Bentley 14	Revise Continuity Plans	All Hazards	Bentley Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Cheney Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Cheney 1	Purchase and install critical facility backup generators.	All hazards	Cheney Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Cheney 2	Institute a tree trimming program near utility lines.	All hazards	Andale Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Cheney 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Cheney Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Cheney 4	Conduct a personal water use education program.	Drought	Cheney Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Cheney 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Cheney Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Cheney 6	Continue to participate meet requirements of the NFIP.	Flood	Cheney NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Cheney 7	Upgrade/ Improve Storm Water Management systems.	Flood	Cheney Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Cheney 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Cheney Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Cheney 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Cheney Administration	Low	4	Staff Time	Local budgets	Five years	New
Cheney 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Cheney Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Cheney Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Cheney 11	Create defensible space buffers at all critical facilities	Wildfire	Cheney Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Cheney 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Cheney IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Cheney 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Cheney Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Cheney 14	Revise Continuity Plans	All Hazards	Cheney Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Clearwater Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Clearwater 1	Purchase and install critical facility backup generators.	All hazards	Clearwater Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Clearwater 2	Institute a tree trimming program near utility lines.	All hazards	Clearwater Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Clearwater 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Clearwater Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Clearwater 4	Conduct a personal water use education program.	Drought	Clearwater Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Clearwater 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Clearwater Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Clearwater 6	Continue to participate meet requirements of the NFIP.	Flood	Clearwater NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Clearwater 7	Upgrade/ Improve Storm Water Management systems.	Flood	Clearwater Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Clearwater 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Clearwater Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Clearwater 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Clearwater Administration	Low	4	Staff Time	Local budgets	Five years	New
Clearwater 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Clearwater Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Clearwater Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Clearwater 11	Create defensible space buffers at all critical facilities	Wildfire	Clearwater Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Clearwater 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Clearwater IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Clearwater 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Clearwater Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Clearwater 14	Revise Continuity Plans	All Hazards	Clearwater Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Colwich Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Colwich 1	Purchase and install critical facility backup generators.	All hazards	Colwich Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Colwich 2	Institute a tree trimming program near utility lines.	All hazards	Colwich Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Colwich 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Colwich Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Colwich 4	Conduct a personal water use education program.	Drought	Andale Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Colwich 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Colwich Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Colwich 6	Continue to participate meet requirements of the NFIP.	Flood	Colwich NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Colwich 7	Upgrade/ Improve Storm Water Management systems.	Flood	Colwich Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Colwich 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Colwich Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Colwich 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Colwich Administration	Low	4	Staff Time	Local budgets	Five years	New
Colwich 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Colwich Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Colwich Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Colwich 11	Create defensible space buffers at all critical facilities	Wildfire	Colwich Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Colwich 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Colwich IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Colwich 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Colwich Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Colwich 14	Revise Continuity Plans	All Hazards	Colwich Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Derby Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Derby 1	Purchase and install critical facility backup generators.	All hazards	Derby Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Derby 2	Institute a tree trimming program near utility lines.	All hazards	Derby Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Derby 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Derby Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Derby 4	Conduct a personal water use education program.	Drought	Derby Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Derby 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Derby Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Derby 6	Continue to participate meet requirements of the NFIP.	Flood	Derby NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Derby 7	Upgrade/ Improve Storm Water Management systems.	Flood	Derby Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Derby 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Derby Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Derby 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Derby Administration	Low	4	Staff Time	Local budgets	Five years	New
Derby 10	Construct FEMA rated shelter at Derby Parks.	Tornado	Derby Administration	High	1, 2	TBD	HMGP, BRIC, Local budgets	TBD	New

Derby Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Derby 11	Create defensible space buffers at all critical facilities	Wildfire	Derby Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Derby 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Derby IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Derby 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Derby Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Derby 14	Revise Continuity Plans	All Hazards	Derby Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Eastborough Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Eastborough 1	Purchase and install critical facility backup generators.	All hazards	Eastborough Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Eastborough 2	Institute a tree trimming program near utility lines.	All hazards	Eastborough Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Eastborough 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Eastborough Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Eastborough 4	Conduct a personal water use education program.	Drought	Eastborough Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Eastborough 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Eastborough Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Eastborough 6	Continue to participate meet requirements of the NFIP.	Flood	Eastborough NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Eastborough 7	Upgrade/ Improve Storm Water Management systems.	Flood	Eastborough Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Eastborough 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Eastborough Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Eastborough 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Eastborough Administration	Low	4	Staff Time	Local budgets	Five years	New
Eastborough 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Eastborough Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Eastborough Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Eastborough 11	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Eastborough IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Eastborough 12	Create and maintain cyber incident response plan	Cybersecurity Incident	Eastborough Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Eastborough 13	Revise Continuity Plans	All Hazards	Eastborough Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Garden Plain Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Garden Plain 1	Purchase and install critical facility backup generators.	All hazards	Garden Plain Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Garden Plain 2	Institute a tree trimming program near utility lines.	All hazards	Andale Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Garden Plain 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Garden Plain Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Garden Plain 4	Conduct a personal water use education program.	Drought	Garden Plain Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Garden Plain 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Garden Plain Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Garden Plain 6	Continue to participate meet requirements of the NFIP.	Flood	Garden Plain NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Garden Plain 7	Upgrade/ Improve Storm Water Management systems.	Flood	Garden Plain Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Garden Plain 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Garden Plain Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Garden Plain 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Garden Plain Administration	Low	4	Staff Time	Local budgets	Five years	New
Garden Plain 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Garden Plain Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Garen Plain Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Garden Plain 11	Create defensible space buffers at all critical facilities	Wildfire	Garden Plain Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Garden Plain 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Andale IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Garden Plain 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Garden Plain Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Garden Plain 14	Revise Continuity Plans	All Hazards	Garden Plain Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Goddard Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Goddard 1	Purchase and install critical facility backup generators.	All hazards	Goddard Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Goddard 2	Institute a tree trimming program near utility lines.	All hazards	Goddard Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Goddard 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Goddard Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Goddard 4	Conduct a personal water use education program.	Drought	Goddard Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Goddard 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Goddard Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Goddard 6	Continue to participate meet requirements of the NFIP.	Flood	Goddard NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Goddard 7	Upgrade/ Improve Storm Water Management systems.	Flood	Goddard Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Goddard 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Goddard Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Goddard 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Goddard Administration	Low	4	Staff Time	Local budgets	Five years	New
Goddard 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Goddard Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Goddard Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Goddard 11	Create defensible space buffers at all critical facilities	Wildfire	Goddard Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Goddard 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Goddard IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Goddard 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Goddard Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Goddard 14	Revise Continuity Plans	All Hazards	Goddard Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Haysville Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Haysville 1	Purchase and install critical facility backup generators.	All hazards	Haysville Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Haysville 2	Institute a tree trimming program near utility lines.	All hazards	Haysville Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Haysville 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Haysville Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Haysville 4	Conduct a personal water use education program.	Drought	Haysville Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Haysville 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Haysville Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Haysville 6	Continue to participate meet requirements of the NFIP.	Flood	Haysville NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Haysville 7	Upgrade/ Improve Storm Water Management systems.	Flood	Haysville Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Haysville 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Haysville Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Haysville 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Haysville Administration	Low	4	Staff Time	Local budgets	Five years	New
Haysville 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Haysville Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Haysville Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Haysville 11	Create defensible space buffers at all critical facilities	Wildfire	Haysville Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Haysville 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Haysville IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Haysville 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Haysville Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Haysville 14	Revise Continuity Plans	All Hazards	Haysville Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Kechi Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Kechi 1	Purchase and install critical facility backup generators.	All hazards	Kechi Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Kechi 2	Institute a tree trimming program near utility lines.	All hazards	Kechi Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Kechi 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Kechi Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Kechi 4	Conduct a personal water use education program.	Drought	Kechi Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Kechi 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Kechi Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Kechi 6	Continue to participate meet requirements of the NFIP.	Flood	Kechi NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Kechi 7	Upgrade/ Improve Storm Water Management systems.	Flood	Kechi Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Kechi 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Kechi Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Kechi 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Kechi Administration	Low	4	Staff Time	Local budgets	Five years	New
Kechi 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Kechi Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Kechi Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Kechi 11	Create defensible space buffers at all critical facilities	Wildfire	Kechi Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Kechi 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Kechi IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Kechi 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Kechi Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Kechi 14	Revise Continuity Plans	All Hazards	Kechi Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Maize Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Maize 1	Purchase and install critical facility backup generators.	All hazards	Maize Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Maize 2	Institute a tree trimming program near utility lines.	All hazards	Maize Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Maize 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Maize Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Maize 4	Conduct a personal water use education program.	Drought	Maize Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Maize 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Maize Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Maize 6	Continue to participate meet requirements of the NFIP.	Flood	Maize NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Maize 7	Upgrade/ Improve Storm Water Management systems.	Flood	Maize Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Maize 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Maize Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Maize 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Maize Administration	Low	4	Staff Time	Local budgets	Five years	New
Maize 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Maize Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Maize Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Maize 11	Create defensible space buffers at all critical facilities	Wildfire	Maize Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Maize 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Maize IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Maize 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Maize Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Maize 14	Revise Continuity Plans	All Hazards	Maize Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Mount Hope Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Mount Hope 1	Purchase and install critical facility backup generators.	All hazards	Mount Hope Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Mount Hope 2	Institute a tree trimming program near utility lines.	All hazards	Mount Hope Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Mount Hope 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Mount Hope Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Mount Hope 4	Conduct a personal water use education program.	Drought	Mount Hope Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Mount Hope 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Mount Hope Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Mount Hope 6	Continue to participate meet requirements of the NFIP.	Flood	Mount Hope NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Mount Hope 7	Upgrade/ Improve Storm Water Management systems.	Flood	Mount Hope Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Mount Hope 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Mount Hope Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Mount Hope 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Mount Hope Administration	Low	4	Staff Time	Local budgets	Five years	New
Mount Hope 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Mount Hope Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Mount Hope Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Mount Hope 11	Create defensible space buffers at all critical facilities	Wildfire	Mount Hope Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Mount Hope 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Mount Hope IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Mount Hope 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Mount Hope Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Mount Hope 14	Revise Continuity Plans	All Hazards	Mount Hope Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Mulvane Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Mulvane 1	Purchase and install critical facility backup generators.	All hazards	Mulvane Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Mulvane 2	Institute a tree trimming program near utility lines.	All hazards	Mulvane Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Mulvane 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Mulvane Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Mulvane 4	Conduct a personal water use education program.	Drought	Mulvane Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Mulvane 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Mulvane Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Mulvane 6	Continue to participate meet requirements of the NFIP.	Flood	Mulvane NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Mulvane 7	Upgrade/ Improve Storm Water Management systems.	Flood	Mulvane Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Mulvane 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Mulvane Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Mulvane 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Mulvane Administration	Low	4	Staff Time	Local budgets	Five years	New
Mulvane 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Mulvane Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Mulvane Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Mulvane 11	Create defensible space buffers at all critical facilities	Wildfire	Mulvane Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Mulvane 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Mulvane IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Mulvane 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Mulvane Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Mulvane 14	Revise Continuity Plans	All Hazards	Mulvane Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Park City Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Park City 1	Purchase and install critical facility backup generators.	All hazards	Park City Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Park City 2	Institute a tree trimming program near utility lines.	All hazards	Park City Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Park City 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Park City Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Park City 4	Conduct a personal water use education program.	Drought	Park City Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Park City 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Park City Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Park City 6	Continue to participate meet requirements of the NFIP.	Flood	Park City NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Park City 7	Upgrade/ Improve Storm Water Management systems.	Flood	Park City Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Park City 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Park City Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Park City 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Park City Administration	Low	4	Staff Time	Local budgets	Five years	New
Park City 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Park City Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Park City Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Park City 11	Create defensible space buffers at all critical facilities	Wildfire	Park City Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Park City 13	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Park City IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Park City 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Park City Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Park City 14	Revise Continuity Plans	All Hazards	Park City Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Sedgwick Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick 1	Purchase and install critical facility backup generators.	All hazards	Sedgwick Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Sedgwick 2	Institute a tree trimming program near utility lines.	All hazards	Sedgwick Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Sedgwick 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Sedgwick Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Sedgwick 4	Conduct a personal water use education program.	Drought	Sedgwick Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Sedgwick 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Sedgwick Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Sedgwick 6	Continue to participate meet requirements of the NFIP.	Flood	Sedgwick NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Sedgwick 7	Upgrade/ Improve Storm Water Management systems.	Flood	Sedgwick Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Sedgwick 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Sedgwick Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Sedgwick 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Sedgwick Administration	Low	4	Staff Time	Local budgets	Five years	New
Sedgwick 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Sedgwick Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Sedgwick Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick 11	Create defensible space buffers at all critical facilities	Wildfire	Sedgwick Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Sedgwick 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Sedgwick IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Sedgwick 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Sedgwick Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Sedgwick 14	Revise Continuity Plans	All Hazards	Sedgwick Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Valley Center Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Valley Center 1	Purchase and install critical facility backup generators.	All hazards	Valley Center Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Valley Center 2	Institute a tree trimming program near utility lines.	All hazards	Valley Center Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Valley Center 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Valley Center Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Valley Center 4	Conduct a personal water use education program.	Drought	Valley Center Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Valley Center 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Valley Center Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Valley Center 6	Continue to participate meet requirements of the NFIP.	Flood	Valley Center NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Valley Center 7	Upgrade/ Improve Storm Water Management systems.	Flood	Valley Center Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Valley Center 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Valley Center Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Valley Center 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Valley Center Administration	Low	4	Staff Time	Local budgets	Five years	New
Valley Center 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Valley Center Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Valley Center Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Valley Center 11	Create defensible space buffers at all critical facilities	Wildfire	Valley Center Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Valley Center 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Valley Center IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Valley Center 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Valley Center Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Valley Center 14	Revise Continuity Plans	All Hazards	Valley Center Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Viola Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Viola 1	Purchase and install critical facility backup generators.	All hazards	Viola Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Viola 2	Institute a tree trimming program near utility lines.	All hazards	Viola Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Viola 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Viola Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Viola 4	Conduct a personal water use education program.	Drought	Viola Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Viola 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Viola Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Viola 6	Continue to participate meet requirements of the NFIP.	Flood	Viola NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Viola 7	Upgrade/ Improve Storm Water Management systems.	Flood	Viola Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Viola 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Viola Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Viola 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Viola Administration	Low	4	Staff Time	Local budgets	Five years	New
Viola 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Viola Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Viola Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Viola 11	Create defensible space buffers at all critical facilities	Wildfire	Viola Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Viola 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Viola IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Viola 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Viola Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Viola 14	Revise Continuity Plans	All Hazards	Viola Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

Wichita Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Wichita 1	Purchase and install critical facility backup generators.	All hazards	Wichita Administration	High	1	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Wichita 2	Institute a tree trimming program near utility lines.	All hazards	Wichita Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Wichita 3	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Wichita Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	New
Wichita 4	Conduct a personal water use education program.	Drought	Wichita Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	New
Wichita 5	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Wichita Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	New
Wichita 6	Continue to participate meet requirements of the NFIP.	Flood	Wichita NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going
Wichita 7	Upgrade/ Improve Storm Water Management systems.	Flood	Wichita Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ongoing	Ongoing
Wichita 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Wichita Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Wichita 9	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Wichita Administration	Low	4	Staff Time	Local budgets	Five years	New
Wichita 10	Construct community safe rooms in select jurisdictional buildings.	Tornado	Wichita Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding

Wichita Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Wichita 11	Create defensible space buffers at all critical facilities	Wildfire	Wichita Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	New
Wichita 12	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Wichita IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Wichita 13	Create and maintain cyber incident response plan	Cybersecurity Incident	Wichita Administration	High	3,4	Staff Time	Local budgets	Ongoing	New
Wichita 14	Revise Continuity Plans	All Hazards	Wichita Administration	High	1,3,4	Staff Time	Local Budget	Ongoing	New

USD 259 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 259 1	Purchase and install facility backup generators.	All hazards	USD 259 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 259 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 259 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 259 3	Conduct hazard mitigation education programs for students.	All hazards	USD 259 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 259 4	Conduct a xeriscaping program for all school facilities	Drought	USD 259 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 259 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 259 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 259 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 259 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 259 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 259 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 259 8	Construct rainwater gardens adjacent to paved areas.	Flood	USD 259 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 259 9	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 259 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 259 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 259 10	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 259 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 259 11	Conduct regular staff and student active shooter trainings.	Terrorism	USD 259 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 259 12	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 259 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 260 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 260 1	Purchase and install facility backup generators.	All hazards	USD 260 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 260 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 260 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 260 3	Conduct hazard mitigation education programs for students.	All hazards	USD 260 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 260 4	Conduct a xeriscaping program for all school facilities	Drought	USD 260 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 260 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 260 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 260 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 260 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 260 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 260 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 260 8	Construct rainwater gardens adjacent to paved areas.	Flood	USD 260 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 260 9	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 260 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 260 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 260 10	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 260 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 260 11	Conduct regular staff and student active shooter trainings.	Terrorism	USD 260 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 260 12	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 260 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 261 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 261 1	Purchase and install facility backup generators.	All hazards	USD 261 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 261 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 261 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 261 3	Conduct hazard mitigation education programs for students.	All hazards	USD 261 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 261 4	Conduct a xeriscaping program for all school facilities	Drought	USD 261 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 261 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 261 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 261 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 261 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 261 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 261 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 261 8	Construct rainwater gardens adjacent to paved areas.	Flood	USD 261 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 261 9	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 261 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 261 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 261 10	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 261 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 261 11	Conduct regular staff and student active shooter trainings.	Terrorism	USD 261 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 261 12	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 261 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 262 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 262 1	Purchase and install facility backup generators.	All hazards	USD 262 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 262 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 262 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 262 3	Conduct hazard mitigation education programs for students.	All hazards	USD 262 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 262 4	Conduct a xeriscaping program for all school facilities	Drought	USD 262 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 262 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 262 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 262 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 262 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 262 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 262 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 262 8	Construct rainwater gardens adjacent to paved areas.	Flood	USD 262 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 262 9	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 262 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 262 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 262 10	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 262 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 262 11	Conduct regular staff and student active shooter trainings.	Terrorism	USD 262 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 262 12	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 262 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 263 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 263 1	Purchase and install facility backup generators.	All hazards	USD 263 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 263 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 263 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 263 3	Conduct hazard mitigation education programs for students.	All hazards	USD 263 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 263 4	Conduct a xeriscaping program for all school facilities	Drought	USD 263 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 263 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 263 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 263 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 263 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 263 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 263 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 263 9	Construct rainwater gardens adjacent to paved areas.	Flood	USD 263 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 263 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 263 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 263 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 263 11	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 263 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 263 12	Conduct regular staff and student active shooter trainings.	Terrorism	USD 263 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 263 13	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 263 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 264 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 264 1	Purchase and install facility backup generators.	All hazards	USD 264 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 264 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 264 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 264 3	Conduct hazard mitigation education programs for students.	All hazards	USD 264 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 264 4	Conduct a xeriscaping program for all school facilities	Drought	USD 264 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 264 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 264 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 264 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 264 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 264 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 264 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 264 8	Construct rainwater gardens adjacent to paved areas.	Flood	USD 264 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 264 9	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 264 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 264 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 264 10	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 264 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 264 11	Conduct regular staff and student active shooter trainings.	Terrorism	USD 264 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 264 12	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 264 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 265 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 265 1	Purchase and install facility backup generators.	All hazards	USD 265 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 265 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 265 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 265 3	Conduct hazard mitigation education programs for students.	All hazards	USD 265 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 265 4	Conduct a xeriscaping program for all school facilities	Drought	USD 265 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 265 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 265 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 265 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 265 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 265 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 265 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 265 9	Construct rainwater gardens adjacent to paved areas.	Flood	USD 265 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 265 10	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 265 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 265 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 265 11	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 265 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 265 12	Conduct regular staff and student active shooter trainings.	Terrorism	USD 265 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 265 13	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 265 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 266 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 266 1	Purchase and install facility backup generators.	All hazards	USD 266 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 266 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 266 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 266 3	Conduct hazard mitigation education programs for students.	All hazards	USD 266 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 266 4	Conduct a xeriscaping program for all school facilities	Drought	USD 266 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 266 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 266 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 266 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 266 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 266 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 266 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 266 8	Construct rainwater gardens adjacent to paved areas.	Flood	USD 266 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 266 9	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 266 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 266 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 266 10	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 266 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 266 11	Conduct regular staff and student active shooter trainings.	Terrorism	USD 266 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 266 12	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 266 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 267 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 267 1	Purchase and install facility backup generators.	All hazards	USD 267 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 267 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 267 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 267 3	Conduct hazard mitigation education programs for students.	All hazards	USD 267 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 267 4	Conduct a xeriscaping program for all school facilities	Drought	USD 267 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 267 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 267 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 267 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 267 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 267 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 267 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 267 8	Construct rainwater gardens adjacent to paved areas.	Flood	USD 267 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 267 9	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 267 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 267 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 267 10	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 267 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 267 11	Conduct regular staff and student active shooter trainings.	Terrorism	USD 267 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 267 12	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 267 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 268 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 268 1	Purchase and install facility backup generators.	All hazards	USD 268 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 268 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 268 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 268 3	Conduct hazard mitigation education programs for students.	All hazards	USD 268 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 268 4	Conduct a xeriscaping program for all school facilities	Drought	USD 268 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 268 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 268 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 268 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 268 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 268 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 268 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 268 8	Construct rainwater gardens adjacent to paved areas.	Flood	USD 268 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 268 9	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 268 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 268 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 268 10	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 268 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 268 11	Conduct regular staff and student active shooter trainings.	Terrorism	USD 268 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 268 12	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 268 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 356 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 356 1	Purchase and install facility backup generators.	All hazards	USD 356 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 356 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 356 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 356 3	Conduct hazard mitigation education programs for students.	All hazards	USD 356 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 356 4	Conduct a xeriscaping program for all school facilities	Drought	USD 356 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 356 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 356 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 356 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 356 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 356 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 356 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 356 8	Construct rainwater gardens adjacent to paved areas.	Flood	USD 356 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 356 9	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 356 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 356 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 356 10	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 356 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 356 11	Conduct regular staff and student active shooter trainings.	Terrorism	USD 356 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 356 12	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 356 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

USD 440 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 440 1	Purchase and install facility backup generators.	All hazards	USD 440 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 440 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 440 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 440 3	Conduct hazard mitigation education programs for students.	All hazards	USD 440 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 440 4	Conduct a xeriscaping program for all school facilities	Drought	USD 440 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 440 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 440 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 440 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	USD 440 Superintendent	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 440 7	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 440 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 440 8	Construct rainwater gardens adjacent to paved areas.	Flood	USD 440 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 440 9	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 440 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New

USD 440 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 440 10	Create and maintain cyber incident response plan	Cybersecurity Incident	USD 440 Superintendent	High	3,4	Staff Time	School budgets	Ongoing	New
USD 440 11	Conduct regular staff and student active shooter trainings.	Terrorism	USD 440 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New
USD 440 12	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	USD 440 Superintendent	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

KU School of Medicine Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
KU School of Medicine 1	Purchase and install facility backup generators.	All hazards	KU School of Medicine President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
KU School of Medicine 2	Construct safe rooms in all school buildings to required standards.	All hazards	KU School of Medicine President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
KU School of Medicine 3	Conduct a xeriscaping program for all school facilities	Drought	KU School of Medicine President	Low	1, 2	$10,000 -per location	HMGP, BRIC, School Budget	Ten years	New
KU School of Medicine 4	Create and maintain cyber incident response plan	Cybersecurity Incident	KU School of Medicine President	High	3,4	Staff Time	School budgets	Ongoing	New
KU School of Medicine 5	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	KU School of Medicine President	Medium	1, 2	$50,000 per location	HMGP, BRIC, School Budget	Five years	New
KU School of Medicine 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	KU School of Medicine President	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
KU School of Medicine 7	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	KU School of Medicine President	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

Wichita State University

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Wichita State University 1	Purchase and install facility backup generators.	All hazards	Wichita State University President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Wichita State University 2	Construct safe rooms in all school buildings to required standards.	All hazards	Wichita State University President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
Wichita State University 3	Conduct a xeriscaping program for all school facilities	Drought	Wichita State University President	Low	1, 2	$10,000 -per location	HMGP, BRIC, School Budget	Ten years	New
Wichita State University 4	Create and maintain cyber incident response plan	Cybersecurity Incident	Wichita State University President	High	3,4	Staff Time	School budgets	Ongoing	New
Wichita State University 5	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	Wichita State University President	Medium	1, 2	$50,000 per location	HMGP, BRIC, School Budget	Five years	New
Wichita State University 6	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	Wichita State University President	Low	1, 2	$25,000 per facility	HMGP, BRIC, School Budget	Five years	New
Wichita State University 7	Conduct security review. Install camera, automatic locks and upgrade barriers as needed	Terrorism	Wichita State University President	Low	2	TBD	HMGP, BRIC, School Budget	TBD	New

Sedgwick County REC Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick County REC 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Sedgwick County REC 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Wheatland REC Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Wheatland REC 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Wheatland REC 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Sedgwick County Fire District #1 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sedgwick County Fire District #1 1	Purchase and install facility backup generators.	All hazards	Sedgwick County Fire District #1 Chief	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Fire budgets	Five years	Carried over due to lack of funding
Sedgwick County Fire District #1 2	Reduce hazardous fuels in prioritized wildfire risk areas.	Wildfire	Sedgwick County Fire District #1 Chief	Medium	1,2	$105.00 an acre	Federal WUI grant dollars, Fire budget	On going	Carried over due to lack of funding
Sedgwick County Fire District #1 3	Conduct Wildland Urban Interface response training for firefighters.	Wildfire	Sedgwick County Fire District #1 Chief	Medium	1,2,3	$30 per student per training	Federal WUI grant dollars, Fire budget	On going	New

Sumner County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sumner County 1	Install generators in all county facilities.	All hazards	Sumner County Emergency Manager, Sumner County Facilities Department	High	1, 3	$10,000 to $50,000 per location	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Sumner County 2	Upgrade and enhance sirens throughout county	All hazards	Sumner County Emergency Manager	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of funding
Sumner County 3	Purchase electronic mobile traffic notification signs.	All hazards	Sumner County Emergency Manager, Sumner County Public Works	Medium	1, 2	$35,000	HMGP, Jurisdiction budget	Five years	New
Sumner County 4	Conduct a regular tree trimming and tree wire installation program.	All hazards	Sumner County Emergency Manager	High	1, 2	$25,000 per occurrence	HMGP, BRIC, Jurisdiction budget	Five years	New
Sumner County 5	Conduct agricultural education program on water reduction methods.	Agricultural Infestation, Drought	Sumner County Emergency Manager	High	1, 3	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Sumner County 6	Mail updated information to all agricultural producers concerning emerging threats.	Agricultural Infestation	Sumner County Emergency Manager	High	1, 2	Staff Time and $500	Jurisdiction budget	Five years	Carried over due to lack of staff
Sumner County 7	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Sumner County Emergency Manager	Medium	1, 2, 4	$5,000 per location	HMGP, Jurisdiction budget	Five years	New
Sumner County 8	Map all infrastructure and facilities within dam inundation areas.	Dam/Levee Failure	Sumner County Emergency Manager	Medium	1, 2, 4	$10,000 per location	HMGP, Jurisdiction budget	Five years	New

Sumner County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sumner County 9	Conduct a Xeriscaping program for all jurisdictional owned facilities	Drought	Sumner County Facilities Department	Low	1, 2	$5,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Sumner County 10	Revise building codes to require low water flow toilets and faucets.	Drought	Sumner County Administration	High	1, 2	Staff Time	Jurisdiction budget	Five years	Carried over due to lack of staff
Sumner County 11	Develop and recommend building code updates for seismic events	Earthquake	Sumner County Facilities Director	Low	1, 2	Staff time	Local budgets	Continuous	On-going
Sumner County 12	Modernization HVAC systems in jurisdictional facilities.	Extreme Temperatures	Sumner County Facilities Director	Low	1, 2	$25,000 per facility	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Sumner County 13	Identify and prepare county building for usage as heat/cold shelters.	Extreme Temperatures	Sumner County Facilities Director	Low	1, 2	$2,000 per facility	BRIC, Jurisdiction budget	Five years	New
Sumner County 14	Continue to participate in, and enforce provisions of, NFIP.	Flood	NFIP Administrator	High	1, 2	Per property cost	Jurisdiction budget	On-going	On-going
Sumner County 15	Purchase and demolish flood prone properties	Flood	Sumner County Emergency Manager, NFIP Administrator	High	1, 2	Per property cost	FMA, HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Sumner County 16	Conduct a flood insurance awareness program.	Flood	NFIP Administrator	High	1, 3	Staff Time	Jurisdiction budget	Five years	New
Sumner County 17	Construct rainwater retention/detention ponds at strategic locations.	Flood	NFIP Administrator, Public Works Director	Medium	1, 2	Facility size dependent	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding

Sumner County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sumner County 18	Procure permanent signage to warn of flood hazard areas.	Flood	NFIP Administrator, Sumner County Emergency Manager	Medium	1, 2	Location dependent	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Sumner County 19	Install surge protectors in all jurisdictional facilities.	Severe Weather	Sumner County Facilities Director	Medium	1, 2	$10,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Sumner County 20	Install hail resistant roofing on all jurisdictional facilities.	Severe Weather	Sumner County Facilities Director	Medium	1, 2	$50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	New
Sumner County 21	Construct community safe rooms throughout the county to required building standards	Severe Storms, Tornado	Sumner County Emergency Manager	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Sumner County 22	Construct snow fences along major transportation routes.	Winter Storm	Sumner County Public Works Director	Low	1, 2	$25,000 - $100,000 per location	HMGP, PDM, Jurisdiction budget	Ten years	Carried over due to lack of funding
Sumner County 23	Insulate water lines in all jurisdictional facilities.	Winter Storm	Sumner County Building Director	Low	1, 2	$10,000 - $50,000 per location	HMGP, BRIC, Jurisdiction budget	Five years	Carried over due to lack of funding
Sumner County 24	Increase public training on brush clearance to minimize fuel for wildland-urban interface fires	Wildfire	Sumner County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding
Sumner County 25	Increase public and fire department training on wildland-urban interface fire prevention.	Wildfire	Sumner County Emergency Manager	Low	3	$30 per student per training session	Kansas Forest Service and federal grants	Three to five years	Not started, lack of funding

Sumner County Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sumner County 26	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Sumner County IT Director	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Sumner County 27	Provide hazardous materials response training to first responders and emergency management staff.	Hazardous Materials Event	Sumner County Emergency Manager	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New
Sumner County 28	Identify and map all structurally deficient bridges.	Infrastructure Failure	Sumner County Public Works Director	Medium	1, 2	$1,000,000 per facility	HMGP, BRIC, Jurisdiction budget	Ten years	Carried over due to lack of funding
Sumner County 29	Conduct active shooter drills and exercises for all county personnel.	Terrorism	Sumner County Sheriff	Low	1, 2	Data size dependent	Jurisdiction budget	Five years	New
Sumner County 30	Purchase and install new epidemiological tracking software.	Transmissible Disease	Sumner County Health Department Director	High	1, 2	$500 per trainee	HMGP, Jurisdiction budget	As required	New

Argonia Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Argonia 1	Purchase and install critical facility backup generators.	All hazards	Argonia Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Argonia 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Argonia Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Argonia 3	Institute a tree trimming program near utility lines.	All hazards	Argonia Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Argonia 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Argonia Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Argonia 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Argonia Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Argonia 6	Conduct a personal water use education program.	Drought	Argonia Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Argonia 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Argonia Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Argonia 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Argonia Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Argonia 9	Continue to participate meet requirements of the NFIP.	Flood	Argonia NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Argonia Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Argonia 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Argonia Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Argonia 11	Clean and repair drainage ditches to maintain capacity.	Flood	Argonia Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Argonia 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Argonia Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Argonia 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Argonia Administration	Low	4	Staff Time	Local budgets	Five years	New
Argonia 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Argonia Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Argonia 15	Create defensible space buffers at all critical facilities	Wildfire	Argonia Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Argonia 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Argonia IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Argonia 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Argonia Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Belle Plaine Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Belle Plaine 1	Purchase and install critical facility backup generators.	All hazards	Belle Plaine Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Belle Plaine 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Belle Plaine Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Belle Plaine 3	Institute a tree trimming program near utility lines.	All hazards	Belle Plaine Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Belle Plaine 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Belle Plaine Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Belle Plaine 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Belle Plaine Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Belle Plaine 6	Conduct a personal water use education program.	Drought	Belle Plaine Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Belle Plaine 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Belle Plaine Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Belle Plaine 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Belle Plaine Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Belle Plaine 9	Continue to participate meet requirements of the NFIP.	Flood	Belle Plaine NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Belle Plaine Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Belle Plaine 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Belle Plaine Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Belle Plaine 11	Clean and repair drainage ditches to maintain capacity.	Flood	Belle Plaine Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Belle Plaine 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Belle Plaine Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Belle Plaine 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Belle Plaine Administration	Low	4	Staff Time	Local budgets	Five years	New
Belle Plaine 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Belle Plaine Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Belle Plaine 15	Create defensible space buffers at all critical facilities	Wildfire	Belle Plaine Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Belle Plaine 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Belle Plaine IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Belle Plaine 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Belle Plaine Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Geuda Springs Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Geuda Springs 1	Purchase and install critical facility backup generators.	All hazards	Geuda Springs Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Geuda Springs 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Geuda Springs Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Geuda Springs 3	Institute a tree trimming program near utility lines.	All hazards	Geuda Springs Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Geuda Springs 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Geuda Springs Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Geuda Springs 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Geuda Springs Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Geuda Springs 6	Conduct a personal water use education program.	Drought	Geuda Springs Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Geuda Springs 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Geuda Springs Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Geuda Springs 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Geuda Springs Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Geuda Springs 9	Continue to participate meet requirements of the NFIP.	Flood	Geuda Springs NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Geuda Springs Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Geuda Springs 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Geuda Springs Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Geuda Springs 11	Clean and repair drainage ditches to maintain capacity.	Flood	Geuda Springs Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Geuda Springs 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Geuda Springs Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Geuda Springs 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Geuda Springs Administration	Low	4	Staff Time	Local budgets	Five years	New
Geuda Springs 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Geuda Springs Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Geuda Springs 15	Create defensible space buffers at all critical facilities	Wildfire	Geuda Springs Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Geuda Springs 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Geuda Springs IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Geuda Springs 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Geuda Springs Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Oxford Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Oxford 1	Purchase and install critical facility backup generators.	All hazards	Oxford Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Oxford 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Oxford Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Oxford 3	Institute a tree trimming program near utility lines.	All hazards	Oxford Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Oxford 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Oxford Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Oxford 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Oxford Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Oxford 6	Conduct a personal water use education program.	Drought	Oxford Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Oxford 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Oxford Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Oxford 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Oxford Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Oxford 9	Continue to participate meet requirements of the NFIP.	Flood	Oxford NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Oxford Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Oxford 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Oxford Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Oxford 11	Clean and repair drainage ditches to maintain capacity.	Flood	Oxford Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Oxford 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Oxford Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Oxford 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Oxford Administration	Low	4	Staff Time	Local budgets	Five years	New
Oxford 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Oxford Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Oxford 15	Create defensible space buffers at all critical facilities	Wildfire	Oxford Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Oxford 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Oxford IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Oxford 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Oxford Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

Wellington Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Wellington 1	Purchase and install critical facility backup generators.	All hazards	Wellington Administration	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of funding
Wellington 2	Upgrade warning siren system to expand coverage and capabilities.	All hazards	Wellington Administration	High	1, 2	$50,000 annually	HMGP, Local budgets	As required	New
Wellington 3	Institute a tree trimming program near utility lines.	All hazards	Wellington Administration	Medium	1, 2	-$50,000	HMGP, BRIC, Local Budgets	As required	New
Wellington 4	Install evacuation route and high ground signage in any high hazard dam potential inundation areas.	Dam/Levee Failure	Wellington Administration	Medium	1, 2, 4	$5,000 per location	HMGP, Local budgets	Five years	New
Wellington 5	Conduct a xeriscaping program for all jurisdictional owned facilities	Drought	Wellington Facilities Director	Medium	1, 2	$5,000 - $20,000 per facility	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Wellington 6	Conduct a personal water use education program.	Drought	Wellington Administration	Low	3	Staff time	HMGP, BRIC, Local budgets	Five years	Carried over due to lack of staff
Wellington 7	Conduct public education campaign on home seismic retrofits.	Earthquake	Wellington Administration	Low	3	Staff time and $3,000	HMGP, Local budgets	Five years	Carried over due to lack of staff
Wellington 8	Identify and prepare local facilities to serve as heating/cooling centers.	Extreme Temperatures	Wellington Facilities Director	Medium	1, 2	$3,000 per facility	HMGP, Local budgets	Five years	Carried over due to lack of staff
Wellington 9	Continue to participate meet requirements of the NFIP.	Flood	Wellington NFIP Coordinator	High	1, 2	Staff time	Local budgets	Continuous	On-going

Wellington Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Wellington 10	Construct rainwater retention/detention ponds at strategic locations.	Flood	Wellington Administration	Low	1, 2	Location and size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Wellington 11	Clean and repair drainage ditches to maintain capacity.	Flood	Wellington Administration	Low	1, 2	Location, length, and size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Wellington 12	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Wellington Facilities Director	Low	1, 2	$50,000 per location	Facility size dependent	Five years	New
Wellington 13	Conduct public education program for driving in winter conditions.	Severe Winter Weather	Wellington Administration	Low	4	Staff Time	Local budgets	Five years	New
Wellington 14	Construct community saferooms in select jurisdictional buildings.	Tornado	Wellington Administration	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	Ten years	Carried over due to lack of funding
Wellington 15	Create defensible space buffers at all critical facilities	Wildfire	Wellington Fire	High	1, 2	Facility size dependent	HMGP, BRIC, Local budgets	As required	Carried over due to lack of funding
Wellington 16	Purchase cloud storage backup for all jurisdictional electronic records.	Cybersecurity Incident	Wellington IT Director	Low	1, 2	Data size dependent	Local budgets	Five years	New
Wellington 17	Provide hazardous materials response training to local first responders.	Hazardous Materials Event	Wellington Fire	High	1, 2	$500 per trainee	HMGP, Local budgets	As required	New

USD 353 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 353 1	Purchase and install facility backup generators.	All hazards	USD 353 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 353 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 353 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 353 3	Conduct hazard mitigation education programs for students.	All hazards	USD 353 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 353 4	Conduct a xeriscaping program for all school facilities	Drought	USD 353 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 353 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 353 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 353 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 353 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 353 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 353 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 353 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 353 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 353 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 353 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 356 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 356 1	Purchase and install facility backup generators.	All hazards	USD 356 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 356 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 356 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 356 3	Conduct hazard mitigation education programs for students.	All hazards	USD 356 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 356 4	Conduct a xeriscaping program for all school facilities	Drought	USD 356 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 356 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 356 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 356 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 356 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 356 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 356 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 356 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 356 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 356 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 356 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 357 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 357 1	Purchase and install facility backup generators.	All hazards	USD 357 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 357 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 357 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 357 3	Conduct hazard mitigation education programs for students.	All hazards	USD 357 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 357 4	Conduct a xeriscaping program for all school facilities	Drought	USD 357 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 357 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 357 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 357 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 357 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 357 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 357 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 357 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 357 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 357 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 357 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 358 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 358 1	Purchase and install facility backup generators.	All hazards	USD 358 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 358 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 358 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 358 3	Conduct hazard mitigation education programs for students.	All hazards	USD 358 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 358 4	Conduct a xeriscaping program for all school facilities	Drought	USD 358 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 358 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 358 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 358 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 358 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 358 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 358 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 358 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 358 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 358 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 358 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 359 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 359 1	Purchase and install facility backup generators.	All hazards	USD 359 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 359 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 359 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 359 3	Conduct hazard mitigation education programs for students.	All hazards	USD 359 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 359 4	Conduct a xeriscaping program for all school facilities	Drought	USD 359 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 359 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 359 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 359 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 359 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 359 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 359 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 359 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 359 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 359 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 359 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 360 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 360 1	Purchase and install facility backup generators.	All hazards	USD 360 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 360 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 360 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 360 3	Conduct hazard mitigation education programs for students.	All hazards	USD 360 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 360 4	Conduct a xeriscaping program for all school facilities	Drought	USD 360 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 360 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 360 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 360 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 360 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 360 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 360 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 360 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 360 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 360 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 360 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

USD 509 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
USD 509 1	Purchase and install facility backup generators.	All hazards	USD 509 Superintendent	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
USD 509 2	Construct safe rooms in all school buildings to required standards.	All hazards	USD 509 Superintendent	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
USD 509 3	Conduct hazard mitigation education programs for students.	All hazards	USD 509 Superintendent	Medium	1, 2, 3	$2,000	School Budget	As required	New
USD 509 4	Conduct a xeriscaping program for all school facilities	Drought	USD 509 Superintendent	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
USD 509 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	USD 509 Superintendent	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
USD 509 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	USD 509 Superintendent	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
USD 509 7	Construct rainwater gardens adjacent to paved areas.	Flood	USD 509 Superintendent	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
USD 509 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	USD 509 Superintendent	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
USD 509 9	Conduct regular staff and student active shooter trainings.	Terrorism	USD 509 Superintendent	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Wellington Christian Academy Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Wellington Christian Academy 1	Purchase and install facility backup generators.	All hazards	Academy President	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, School Budget	Five years	Carried over due to lack of funding
Wellington Christian Academy 2	Construct safe rooms in all school buildings to required standards.	All hazards	Academy President	High	1, 2	$1,000,000 - per location	HMGP, BRIC, School budget	Ten years	New
Wellington Christian Academy 3	Conduct hazard mitigation education programs for students.	All hazards	Academy President	Medium	1, 2, 3	$2,000	School Budget	As required	New
Wellington Christian Academy 4	Conduct a xeriscaping program for all school facilities	Drought	Academy President	Low	1, 2	$10,000 -per location	HMGP, School Budget	Ten years	New
Wellington Christian Academy 5	Retrofit school facilities to meet minimum seismic construction standards.	Earthquake	Academy President	Low	1, 2	$30,000 per facility	HMGP, BRIC, School Budget	Five years	New
Wellington Christian Academy 6	Conduct an extreme temperature awareness seminar to educate on risks and mitigation methods.	Extreme Temperatures, Severe Winter Weather	Academy President	Medium	1, 2	$500	HMGP, Jurisdiction budget	Five years	New
Wellington Christian Academy 7	Construct rainwater gardens adjacent to paved areas.	Flood	Academy President	Low	1, 2	Location and size dependent	HMGP, BRIC, School Budget	As required	New
Wellington Christian Academy 8	Install hail and fire-resistant roofing on all jurisdictional facilities.	Severe Weather, Wildfires	Academy President	Low	1, 2	$100,000 per location	HMGP, BRIC, School Budget	Five years	New
Wellington Christian Academy 9	Conduct regular staff and student active shooter trainings.	Terrorism	Academy President	High	1, 2, 3	Location and size dependent	HMGP, School Budget	As required	New

Sumner/Cowley Electric Cooperative Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sumner/Cowley Electric Cooperative 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Sumner/Cowley Electric Cooperative 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Sunflower Electric Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sunflower Electric 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Sunflower Electric 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

Wheatland Electric Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Wheatland Electric 1	Purchase and install critical location backup generators.	All hazards	Director of Operations	High	1, 2	$10,000 - $50,000 per facility	HMGP, BRIC, System budget	Five years	Carried over due to lack of funding
Wheatland Electric 2	Shorten distance between utility poles.	All hazards	Director of Operations	Medium	1, 2	Distance and specification dependent	HMGP, System budget	Five years	New

RWD #1 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
RWD #1 1	Purchase and install facility backup generators.	All hazards	Director of Operations	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
RWD #1 2	Replace water lines at critical locations throughout service area.	Drought, Wildfire	Director of Operations	Medium	1,2	Line and distance dependent	BRIC, HMGP, System budget	On going	New

RWD #6 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
RWD #6 1	Purchase and install facility backup generators.	All hazards	Director of Operations	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
RWD #6 2	Replace water lines at critical locations throughout service area.	Drought, Wildfire	Director of Operations	Medium	1,2	Line and distance dependent	BRIC, HMGP, System budget	On going	New

RWD #7 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
RWD #7 1	Purchase and install facility backup generators.	All hazards	Director of Operations	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
RWD #7 2	Replace water lines at critical locations throughout service area.	Drought, Wildfire	Director of Operations	Medium	1,2	Line and distance dependent	BRIC, HMGP, System budget	On going	New

Sumner County Hospital District #1 Mitigation Actions

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Status
Sumner County Hospital District #1 1	Enhance capacity of facility backup generators.	All hazards	Sumner County Hospital District #1 CEO	High	1, 2	$25,000 - $50,000 per facility	HMGP, BRIC, System budgets	Five years	Carried over due to lack of funding
Sumner County Hospital District #1 2	Upgrade ventilation and filtration system.	Infectious Disease	Sumner County Hospital District #1 CEO	Medium	1,2	$100,000	BRIC, HMGP, System budget	Ten years	New
Sumner County Hospital District #1 2	Install shatter resistant film on all facility windows	Severe Weather, Tornado, Wildfire	Labette Health Administrator	High	1, 2	$100,000	HMGP, BRIC, System budgets	Five years	New

CITY OF ARKANSAS CITY, KANSAS
FINANCIAL SUMMARY
Year-To-Date November 30, 2024

	Cash Summary						Budget Summary			
Fund	1/1/2024 Beginning Cash Balance	Prior Year Encumbrances/ Adjusting Entries	Receipts	Disbursements	Change in Assets/Liabilities	11/30/2024 Ending Cash Balance	Budget	Encumbrances	Budget Variance Favorable (Unfavorable)	% Remaining (9%)
01 - GENERAL FUND	$ 2,836,988.58	$ 209,743.29	$ 11,671,994.77	$ 9,987,748.18	$ (499,535.86)	$ 3,811,956.02	$ 14,115,945	$ 347,065.86	$ 3,781,131	27%
15 - STORMWATER FUND	$ 467,706.16	$ -	$ 422,852.35	$ 185,695.24	$ (37,506.68)	$ 667,356.59	$ 443,070	$ -	$ 257,375	58%
16 - WATER FUND	$ 3,720,338.54	$ 111,861.25	$ 5,342,028.16	$ 4,766,734.34	$ (725,757.81)	$ 3,458,013.30	$ 6,937,448	$ 1,457,660.64	$ 713,053	10%
18 - SEWER FUND	$ 4,510,945.03	$ 54,590.00	$ 4,069,066.56	$ 2,360,891.95	$ (717,280.74)	$ 5,447,248.90	$ 2,976,359	$ 19,410.00	$ 596,057	20%
19 - SANITATION FUND	$ 1,610,295.01	$ 205,671.48	$ 2,006,610.13	$ 1,431,101.35	$ (245,310.06)	$ 1,734,822.25	$ 1,882,780	$ -	$ 451,679	24%
20 - SPECIAL RECREATION FUND	$ 49,082.60	$ -	$ 14,510.59	$ 7,028.30	$ -	$ 56,564.89	$ 70,425	$ 7,134.14	$ 56,263	80%
21 - SPECIAL STREET FUND	$ 564,297.00	$ -	$ 826,707.87	$ 353,713.67	$ (3,761.99)	$ 1,033,529.21	$ 715,100	$ 5,399.82	$ 355,987	50%
23 - TOURISM/CONVENTION FUND	$ 110,708.22	$ -	$ 165,734.70	$ 130,505.90	$ 368.90	$ 146,305.92	$ 272,922	$ -	$ 142,416	52%
26 - SPECIAL ALCOHOL FUND	$ 85,992.76	$ -	$ 15,635.59	$ 20,030.66	$ (4,391.46)	$ 77,206.23	$ 111,739	$ -	$ 91,708	82%
27 - PUBLIC LIBRARY FUND	$ 8,553.94	$ -	$ 440,474.32	$ 440,474.32	$ (8,553.94)	$ -	$ 454,974	$ -	$ 14,500	3%
29 - SPECIAL LAW ENF TRUST FUND	$ 2,848.48	$ -	$ -	$ -	$ -	$ 2,848.48	Not a Budgeted Fund			
31 - LAND BANK FUND	$ 16,608.90	$ -	$ 1,501.00	$ 120.27	$ -	$ 17,989.63	$ 21,451	$ -	$ 21,331	99%
32 - MUNICIPALITIES FIGHT ADDICTION FUND	$ 32,235.16	$ -	$ 40,078.86	$ -	$ -	$ 72,314.02	$ 59,253	$ -	$ 59,253	100%
43 - BOND & INTEREST FUND	$ 160,927.81	$ -	$ 2,464,953.02	$ 2,496,148.60	$ -	$ 129,732.23	$ 2,611,836	$ -	$ 115,687	4%
44 - HEALTHCARE SALES TAX FUND	$ -	$ -	$ 1,965,750.05	$ 1,965,750.05	$ -	$ -	$ 2,500,000	$ -	$ 534,250	21%
45 - UNPLEDGED HEALTHCARE SALES TAX FUND	$ 30,403.17	$ -	$ 87,026.03	$ 4,100.00	$ -	$ 113,329.20	$ 252,800	$ -	$ 248,700	98%
53 - MUNICIPAL COURT FUND	$ 9,515.63	$ 13,979.42	$ 4,463.79	$ -	$ 9,621.90	$ 9,621.90	Not a Budgeted Fund			
54 - EQUIPMENT RESERVE FUND	$ 184,746.02	$ -	$ -	$ -	$ -	$ 184,746.02	Not a Budgeted Fund			
57 - CID SALES TAX FUND	$ -	$ -	$ 66,224.58	$ 66,224.58	$ -	$ -	$ 85,000	$ -	$ 18,775	22%
68 - CAPITAL IMPROVEMENT FUND	$ 1,558,692.81	$ -	$ 104,243.66	$ 384,852.54	$ (11,375.00)	$ 1,266,708.93	Not a Budgeted Fund			
TOTALS	$ 15,960,885.82	$ 595,845.44	$ 29,709,856.03	$ 24,601,119.95	$ (2,243,482.74)	$ 18,230,293.72	$ 33,511,102.00			

INDEBTEDNESS:

2019 PBC	$ 10,640,000
GO 2020 REFUNDING & IMPROVEMENT BOND	$ 15,265,000
GO 2022 TAXABLE STROTHER FIELD	$ 4,050,000
GO 2023 TAXABLE LAND PURCHASE	$ 515,000
2019 FERRARA PUMPER TRUCK LEASE	$ 270,235
2021 RAVO STREET SWEEPER	$ 43,290
2023 WWTP SRF LOAN	$ 8,870,342
TOTAL	$ 39,653,868

Note: Information is Unaudited