

City of Kearns

*Jurisdictional Annex to the
Salt Lake County Hazard Mitigation Plan*

Month XXXX | Draft X.X



THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

City of Kearns Annex	1
Planning Process Contact Information	1
Contact List	1
Existing Plans and Resources	3
Jurisdiction Profile	3
Date of Incorporation	3
Location and Description	3
Population	4
Demographics	4
Brief History	4
Climate	4
Public Services	4
Governing Body	4
Development Trends.....	4
Jurisdiction-Specific Hazards and Risk	5
Hazard Event History.....	8
National Flood Insurance Program Summary	10
Jurisdiction-Specific Vulnerabilities and Impacts	10
Hazards Not Profiled.....	21
Jurisdiction-Specific Changes in Vulnerability	21
Additional Public Involvement	26
Plan Integration	26
Capability Assessment	28
Planning and Regulatory Capabilities.....	28
Administrative and Technical Capabilities	29
Financial Capabilities	31
Education and Outreach Capabilities	33
Opportunities to Expand and/or Improve Capabilities	33
Mitigation Strategy.....	34

List of Figures

Figure 1: Social Media Posts for the Hazard Mitigation Survey.....	26
Figure 2: Social Media Posts for the Hazard Mitigation Survey (<i>left</i>) and Hazard Draft Plan Review (<i>right</i>)	26

List of Tables

Table 1: Contact Information for the City of Kearns.....	1
Table 2: Participant List for the City of Kearns.....	1
Table 3: Contact and Stakeholder List for the City of Kearns.....	2
Table 4: Existing Plans and Resources	3
Table 5: Calculated Priority Risk Index Values for the City of Kearns.....	5
Table 6: Criteria for the Calculated Priority Risk Index	6
Table 7: History of Hazard Events in the City of Kearns.....	8
Table 8: National Flood Insurance Program Status for the City of Kearns.....	10
Table 9: National Flood Insurance Program Overview for the City of Kearns	10
Table 10: Jurisdiction-Specific Vulnerabilities and Impacts in the City of Kearns	11
Table 11: Jurisdiction-Specific Changes in Vulnerability in the City of Kearns.....	21
Table 12: Integration of Previous Plans by the City of Kearns	27
Table 13: Opportunities for Integration with Future Plans of the City of Kearns.....	27
Table 14: Assessment of the Planning Capabilities of the City of Kearns	28
Table 15: Assessment of the Regulations and Ordinances of the City of Kearns.....	29
Table 16: Assessment of the Administrative Capabilities of the City of Kearns	30
Table 17: Assessment of the Technical Capabilities of the City of Kearns	31
Table 18: Assessment of the Financial Capabilities of the City of Kearns	31
Table 19: Assessment of the Education and Outreach Capabilities of the City of Kearns.....	33
Table 20: Opportunities to Expand and/or Improve the Capabilities of the City of Kearns	34
Table 21: Mitigation Action Alternatives for the City of Kearns.....	34
Table 22: Status of Prior Mitigation Actions of the City of Kearns	35
Table 23: 2025 Mitigation Action Plan for the City of Kearns	37

City of Kearns Annex

To participate in this multi-jurisdictional hazard mitigation plan (MJHMP) update for Salt Lake County (SLCo), the governing body of the city of Kearns passed a formal resolution, a copy of which is maintained at the local government offices.

Planning Process Contact Information

Table 1 provides information on the point of contact during the updating of the MJHMP.

Table 1: Contact Information for the City of Kearns

Name	Contact Information
Kelly Bush	Phone: 801-654-2123; email: KBush@kearns.utah.gov

The city of Kearns has a fully integrated approach to hazard mitigation planning and program implementation. During the 2024 update process, the MJHMP participation roles in Table 2 were recorded.

Table 2: Participant List for the City of Kearns

Name	Title	Jurisdiction
Kelly Bush	Mayor	City of Kearns
Madison Warner	Municipal EM Planner	Unified Fire Authority

Contact List

Table 3 lists plan contacts and stakeholders for the City of Kearns.

Table 3: Contact and Stakeholder List for the City of Kearns

Name	Title	Jurisdiction/ Agency	Email	Phone	Stakeholder Type ¹	Should They Receive Meeting Invites?	Should They Complete a Survey?	Should they review the draft plan
Greg Anderson	Manager	Kearns Improvement District	ganderson@kidwater4ut.gov		1	Y	Y	Y
Levi Hughes	Chief	Unified Police Department, Kearns Precinct	lhughes@updsl.org		1	Y	Y	Y
Colin Hilton	Director	Olympic Oval	chilton@uolf.org		1	Y	Y	Y
Kevin Schmidt	Director	Kearns Oquirrh Park	kschmidt@kopfc.com		2	Y	Y	Y
Roger Snow	Chair	Kearns Community Council	rsnow@jerryseiner.com		3	Y	N	Y

¹ 1 – Local and regional agencies involved in hazard mitigation activities; 2 – Agencies that have the authority to regulate development; 3 – Neighboring communities; 4 – Representatives of businesses, academia, and other private organizations; 5 – Representatives of nonprofit organizations, including community-based organizations, that work directly with and/or provide support to underserved communities and socially vulnerable populations.

Existing Plans and Resources

Table 4 lists the plans and resources available to the county.

Table 4: Existing Plans and Resources

Plan, Study, Report, or Technical Information	Is it available online?	If online, add the link here.	Is it on SharePoint? Or where can we access it?	Comments
Municipal Services District Emergency Operations Plan	Y	chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.utah.gov/pmn/files/599603.pdf		Added under Resources folder.
Continuity of Operations Plan	Y		Y	Added under Resources folder.
Community Wildfire Protection Plan	N		Y	Added under Resources folder.
Salt Lake County Hazard Mitigation Plan	Y	chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://slcoem.org/wp-content/uploads/2022/04/2019-Salt-Lake-County-Hazard-Mitigation-Plan.pdf		
Emergency Communications Plan	N		Y	Added under Resources folder.

Jurisdiction Profile

Date of Incorporation

Kearns became a metro township in January 2017, then converted to a city on May 1, 2024.

Location and Description

The city of Kearns is located southwest of Salt Lake City. The city is approximately 4.6 square miles in area and is approximately 4,500 feet above sea level. The city offers a blend of residential neighborhoods and recreational facilities that is home to the Utah Olympic Oval, an indoor speed skating rink built for the 2002 Winter Olympics.

Population

The 2022 American Community Survey 5-Year Estimate from the U.S. Census Bureau records the population of the city of Kearns as 37,058 people.

Demographics

Most of the 37,058 people are between the ages of 35 and 44, with a median age of 32.3; 18,666 are females (50.4%) and 18,392 are males (49.6%). English is the primary language in 62.7% of homes,, with 32.3% Spanish, and 5% other languages.

Brief History

During World War II, the area was initially developed as the Kearns Army Air Base to serve as a critical training facility for aircrew members. The base was decommissioned after the war, and the land was gradually converted to a residential community. Named after Senator Thomas Kearns, the area saw significant growth and development and became a prominent suburb of Salt Lake City. Today, Kearns is known for its diverse population, community spirit, and notable landmarks.

Climate

The city of Kearns experiences a humid continental climate (Dfb Köppen classification) characterized by warm summers and cold winters. Average high temperatures are approximately 85°F in the summer and approximately 36°F in the winter. Rain each year is approximately 15.4 inches, and snowfall averages 60 inches annually.

Public Services

The city of Kearns offers a wide range of public services through the Greater Salt Lake Municipal Services District (MSD). The MSD oversees services like planning and zoning, business licenses, inspections, emergency planning, and other municipal services.

Governing Body

The city of Kearns governing body comprises the Mayor, Deputy Mayor, and a three-member council.

Development Trends

The Kearns General Plan, adopted in 2020 and amended in 2021 and 2022, outlines a community-driven vision for land use, transportation, economic development, and housing, including elements on resilience, infrastructure, and moderate-income housing. Kearns is also experiencing population growth, making it one of the younger and more diverse municipalities in Salt Lake County. This is driving the need for more housing and community services. Efforts are underway to boost the local economy through job creation

and support for local businesses. These trends reflect Kearns' commitment to fostering a vibrant and sustainable community.

Jurisdiction-Specific Hazards and Risk

The Calculated Priority Risk Index (CPRI) is a comprehensive assessment tool for evaluating and prioritizing risks in a given context. It considers various factors, such as probability, impact, and urgency, to determine the level of risk associated with events or situations. The results for each hazard, including its risk factor (RF) value, are shown in Table 5. The results are based on the criteria in Table 6 and the equation that follows it. The CPRI helps organizations and individuals make informed decisions about risk management and mitigation strategies. It provides a systematic approach to identifying and addressing potential issues, allowing for a more efficient allocation of resources and proactive risk prevention. With the CPRI, stakeholders can prioritize their focus on the most critical risks, leading to more effective risk management and, ultimately, better outcomes.

Table 5: Calculated Priority Risk Index Values for the City of Kearns

Type of Hazard Event	Probability of Future Events	Spatial Extent	Severity of Life/Property Impact	Warning Time	Duration	Response Capacity	Risk Factor Value
Avalanche	0	0	0	0	0	0	0
Drought	2	1	1	1	1	1	1.3
Earthquake	2	4	4	4	4	2	3.2
Extreme Heat	2	2	1	1	1	1	1.4
Extreme Cold	2	2	1	1	1	1	1.4
Flooding	1	2	1	1	1	1	1.1
Landslide/Slope Failure	1	1	1	1	1	2	1.1
Radon	2	1	1	1	1	2	1.4
Heavy Rain	2	2	1	2	1	1	1.5
High Wind	2	2	1	2	1	1	1.5
Lightning	2	2	1	2	1	1	1.5
Severe Winter Weather	2	2	1	1	1	1	1.4
Tornado	1	1	1	1	1	2	1.1
Wildfire	1	1	1	1	1	1	1
Dam Failure	1	1	1	1	1	3	1.2
Civil Disturbance	1	2	1	2	1	2	1.3
Cyberattack	2	2	1	2	1	2	1.6
Hazardous Materials Incident	2	2	1	2	1	1	1.5

Type of Hazard Event	Probability of Future Events	Spatial Extent	Severity of Life/Property Impact	Warning Time	Duration	Response Capacity	Risk Factor Value
(Transportation & Fixed Facility)							
Public Health Epidemic/Pandemic	2	2	1	1	1	1	1.4
Terrorism	1	1	1	2	1	1	1.1

Table 6: Criteria for the Calculated Priority Risk Index

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
Probability of Future Events	1	Unlikely	Less than 1 percent probability of occurrence in the next year or a recurrence interval of greater than every 100 years.	30%
	2	Occasional	1 to 10 percent probability of occurrence in the next year or a recurrence interval of 11 to 100 years.	
	3	Likely	11 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years.	
	4	Highly Likely	91 to 100 percent probability of occurrence in the next year or a recurrence interval of less than 1 year.	
Spatial Extent	1	Limited	Less than 10% of the planning area could be impacted.	10%
	2	Small	10%–25% of the planning area could be impacted.	
	3	Significant	25%–50% of the planning area could be impacted.	
	4	Extensive	50%–100% of the planning area could be impacted.	
Severity of Life/Property Impact	1	Negligible	Less than 5% of the affected area's critical and non-critical facilities and structures are damaged/destroyed. Only minor property damage and minimal disruption of life. Temporary shutdown of critical facilities.	30%
	2	Limited	More than 5% but less than 25% percent of property in the affected area is damaged/destroyed. Complete shutdown of critical facilities for more than one day but less than one week.	

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
	3	Critical	More than 25% and less than 50% of property in the affected area was damaged/destroyed. Complete shutdown of critical facilities for over a week but less than one month.	
	4	Catastrophic	Over 50% of critical and non-critical facilities and infrastructures in the affected area are damaged/destroyed. Complete shutdown of critical facilities for more than one month.	
Warning Time	1	Self-defined	More than 24 hours	10%
	2	Self-defined	12 to 24 hours.	
	3	Self-defined	6 to 12 hours.	
	4	Self-defined	Less than 6 hours.	
Duration	1	Brief	Up to 6 hours.	10%
	2	Intermediate	Up to one day.	
	3	Extended	Up to one week.	
	4	Prolonged	More than one week.	
Response Capacity	1	High	Significant resources and capability to respond to this kind of event; staff are trained, experienced, and ready.	10%
	2	Medium	Some resources and capability to respond to this kind of staff; some staff may be trained, experienced, and ready while others may need additional support.	
	3	Low	Limited resources and capability to respond to this kind of event; additional staff or staff training needed.	
	4	None	No resources and capability to respond this kind of event; additional outside support would be required.	

RISK FACTOR (RF) EQUATION

RF Value = [(Probability x 0.30) + (Spatial Extent x 0.10) + (Severity of Life/Property Impact x 0.30) + (Warning Time x 0.10) + (Duration x 0.10) + (Response Capacity x 0.10)]

Hazards with an RF value greater than or equal to 2.5 are considered high risk. Those with RF values of 2.0 to 2.4 are considered moderate risk hazards, and those with an RF value less than 2.0 are considered low risk. The highest possible RF value is 4.

Hazard Event History

Examining hazard event histories provides valuable insights to inform decision making and help prioritize resources for risk prevention and response efforts. Table 7 lists the hazard events impacting the city of Kearns since the 2019 plan update, as recorded in the Storm Events Database from the National Centers for Environmental Information.

Table 7: History of Hazard Events in the City of Kearns

Type of Hazard Event	FEMA Disaster #	Date(s)	Damage or Impacts	Description
Avalanche		N/A	N/A	N/A
Drought		1930s 1950s–1960s: 2020: 2021:	Air quality issues, potential for greater ecosystem collapse, decreased precipitation.	1930s: The Great Salt Lake and streams experienced low water levels 1950s–1960s: The Great Salt Lake experienced even lower water levels than in the 1930s. 2020: Utah experienced its driest year on record, with record dry soils and low snowpack. 2021: The Great Salt Lake reached an all-time record low due to a drought.
Earthquake	DR-4548-UT	03/18/20	M 5.7 earthquake was felt March 2020. 1962 Magna M 5.2 earthquake and the 1992 Western Traverse Mountains M 4.2 earthquake	M 5.7 earthquake at 7:09 a.m., centered 3.7 miles northeast of Kearns in Magna. The Wasatch Fault is considered overdue for a major earthquake, with a 57% chance of an M 6.0 or greater in the next 50 years.
Extreme Heat	N/A	Summers of 2020, 2021, 2022, 2023, 2024	Reported 9 deaths in Northern Utah, an upward trend in heat exposure and heat-related deaths since 2015. Excessive heat can also affect infrastructure.	Kearns along with Salt Lake County had one of the hottest summers on record, with several days over 105°F.
Extreme Cold	N/A	Winter of 2022 & 2023	2022: 5 people experiencing homelessness died from cold-related exposure. These deaths were in Salt Lake City, but this threat could impact neighboring jurisdictions.	N/A

Type of Hazard Event	FEMA Disaster #	Date(s)	Damage or Impacts	Description
Flooding	N/A	2008, 2011 flooding	Water was 9–12” on some roads, making them impassable & accumulated in low lying areas.	N/A
Landslide/ Slope Failure	N/A	N/A	N/A	N/A
Radon	N/A	Ongoing	N/A	It is believed that 31% of the homes in Kearns have radon in them.
Heavy Rain	N/A	N/A	N/A	Kearns will see local flooding around storm drains through the year when they become clogged with debris or with sudden summer downpours. No damage has been reported from these.
High Wind	N/A	2018 and 2021	Minor structural damage	Salt Lake County and surrounding areas experienced a severe windstorm with winds exceeding 100 mph in some areas.
Lightning	N/A	N/A	N/A	N/A
Severe Winter Weather	N/A	03/06/22, 02/06/2023		Kearns has seen snow totals of up to 30 inches in a 24 hour period. This impacts the ability of residents to get around, causes power outages and has caused structures to collapse due to the heavy snow weight on roofs.
Tornado	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Dam Failure	N/A	N/A	N/A	N/A
Civil Disturbance	N/A	N/A	N/A	N/A
Cyberattack	N/A	N/A	N/A	N/A
Hazardous Materials Incident (Transportation & Fixed Facility)	N/A	N/A	N/A	N/A
Public Health Epidemic/ Pandemic	DR-4525-UT	January 20, 2020–May 11, 2023	Impacted local businesses with social distancing measures. An increase in medical	SARS-CoV-2 is a strain of coronavirus that causes COVID-19. SARS-CoV-2 is responsible for the worldwide COVID-19

Type of Hazard Event	FEMA Disaster #	Date(s)	Damage or Impacts	Description
			calls led to hospital surges.	pandemic that killed millions and has many medical repercussions that are still being studied.
Terrorism	N/A	N/A	N/A	N/A

National Flood Insurance Program Summary

The city of Kearns participates in the National Flood Insurance Program (NFIP). Table 8 displays statistics related to the NFIP. The city of Kearns does not participate in the Community Rating System (CRS).

Table 8: National Flood Insurance Program Status for the City of Kearns²

Initial FHBM Identified	Initial FIRM Identified	Current Effective Map Date	Adopted Date	Date Joined NFIP	Tribal
12/18/85	12/18/85	09/25/09	2009	05/26/20	No

Table 9: National Flood Insurance Program Overview for the City of Kearns

Community ID	Number of Losses	Total Net Payment	Active Policies	Total Coverage
490265	0	\$0	1	\$350,000

The city of Kearns has designated the Director of Planning and Development Services as the Floodplain Administrator. The duties of the Floodplain Administrator are supported by the Greater Salt Lake Municipal Services District (MSD). The current Flood Damage Prevention and Control Ordinance was adopted on 8/9/2021. The current Flood Insurance Rate Map (FIRM) became effective on 9/25/2009. The MSD is responsible for issuing floodplain permits in MSD Member Communities, including Kearns. The permits include a description of all work, including the kind and type of construction, proposed intent, and location. Substantial damage/substantial improvement structures are identified through the permitting process. Structures that are determined to be substantially damaged or substantial improvements are required to come into compliance with current codes. The MSD Building Department provides guidance on how to build in accordance with existing building codes.

Jurisdiction-Specific Vulnerabilities and Impacts

Table 10 provides information on the vulnerable assets in the city of Kearns, including its critical facilities, highlighting the city's vulnerability to identified hazards. It also describes the potential impacts to the community arising from those vulnerabilities. By understanding the risks associated with these assets, local authorities can develop proactive strategies to mitigate vulnerabilities and ensure that the safety and functionality of these important assets during hazard events. These data are invaluable for decision-

² FIRM = Flood Insurance Rate Map, FHBM = Flood Hazard Boundary Map

making and prioritizing resources for emergency response and preparedness efforts, ultimately contributing to more effective risk management and greater resilience in the community.

Community assets that may be vulnerable to hazards include 1 fire station, 1 police station, 11 schools, the Kearns Senior Center, Kearns Library, and Kearns Oquirrh Park Fitness Center. The city also has multiple parks including Oquirrh Park, Loader Park, and David Gourley Park. The city sits between Mountain View Corridor and Bangerter Highway, but neither directly intersect the city. Other primary routes include 4700 South, 5400 South, 6200 South, and 5600 West. Element Event Center and the Utah Olympic Oval are other notable facilities in the community.

Table 10: Jurisdiction-Specific Vulnerabilities and Impacts in the City of Kearns

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
Avalanche	People	N/A – Avalanche is not a concern for the City of Kearns.
Drought	People	<i>Vulnerability:</i> All Kearns residents are vulnerable to drought. Prolonged drought could disproportionately affect seniors, children, low-income households, and individuals without stable housing. <i>Impacts:</i> These populations may face challenges in paying higher water bills or investing in water-saving appliances. Air quality deterioration caused by dust and pollutants during drought can increase respiratory illnesses and strain public health.
	Structures	<i>Vulnerability:</i> Older homes are vulnerable to drought due to outdated plumbing or inefficient irrigation systems, making them less adaptable to drought restrictions. <i>Impacts:</i> A lack of water-wise landscaping may raise fire risk in residential areas.
	Economic Assets	<i>Vulnerability:</i> Businesses such as car washes, food services, and those that rely on water-intensive operations are vulnerable to drought. <i>Impacts:</i> Vulnerable businesses could face reduced capacity or higher costs during drought conditions. Prolonged dry spells may reduce demand for outdoor-based services or events.
	Natural, Historic, and Cultural Resources	<i>Vulnerability:</i> Parks, wildlife, and vegetation are vulnerable to drought. <i>Impacts:</i> Parks and public landscapes may see stressed vegetation and reduced wildlife. Native flora may be lost if water conservation measures limit irrigation, thus reducing aesthetic and ecological value.
	Critical Facilities and Infrastructure	<i>Vulnerability:</i> Water systems and public buildings are vulnerable to drought. <i>Impacts:</i> Drought can reduce reservoir levels and water pressure, affecting public buildings and firefighting capabilities. Compacted soils may increase flash flood risk when rain returns.
	Community Activities	<i>Vulnerability:</i> Outdoor recreation <i>Impacts:</i> Outdoor public spaces may become less usable due to poor turf conditions or increased heat. Community programming may need to focus on drought education, heat safety, and water conservation.
Earthquake	People	<i>Vulnerability:</i> All residents of Kearns are vulnerable to earthquakes. <i>Impacts:</i> Earthquakes can lead to severe injury or death from falling objects or collapsed structures. A major earthquake could severely affect vulnerable populations in Kearns, especially those in mobile

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
		homes or unreinforced dwellings. Limited mobility and access to medical care could increase risk.
	Structures	<i>Vulnerability:</i> Kearns has a significant number of unreinforced masonry buildings, many of which are vulnerable to structural failure. <i>Impacts:</i> The 2020 earthquake highlighted how older construction types are not built to current seismic standards. Structural damage may result in residents being displaced from homes. Businesses and other facilities may also be damaged, contributing to disruption throughout the community. Recovery could be costly and take months or years depending on the magnitude.
	Economic Assets	<i>Vulnerability:</i> All businesses in Kearns are vulnerable to earthquakes. <i>Impacts:</i> Businesses can face losses from structural damage or loss of contents or inventory. An earthquake could disrupt commerce and emergency access, especially if transportation networks or utility lines fail. Businesses lacking insurance may not recover.
	Natural, Historic, and Cultural Resources	<i>Vulnerability:</i> Trees and historic buildings are vulnerable to earthquakes. <i>Impacts:</i> Earthquakes could damage mature trees, disrupt soil integrity, and harm wildlife. Historical buildings with poor structural integrity may collapse or require extensive repairs.
	Critical Facilities and Infrastructure	<i>Vulnerability:</i> All critical facilities and infrastructure are vulnerable to earthquakes. <i>Impacts:</i> Damage to utilities, roadways, and health centers could delay emergency response and reduce public safety. Police and fire departments may be unable to reach affected areas quickly.
	Community Activities	<i>Vulnerability:</i> Large community gatherings are vulnerable to earthquakes. <i>Impacts:</i> Large events or community gatherings, especially at high-occupancy buildings like the Olympic Oval, could become hazardous during an earthquake. Emergency plans must address evacuation and shelter-in-place procedures.
Extreme Heat	People	<i>Vulnerability:</i> Kearns residents without access to air conditioning face elevated risk during extreme heat events. <i>Impacts:</i> Prolonged exposure may lead to heat exhaustion, dehydration, and heat stroke. Vulnerable populations, such as the elderly, young children, low-income individuals, and unsheltered persons, may be disproportionately affected by heat, especially those who work outdoors and/or do not have access to air conditioning. Extreme heat could lead to an increase in hospitalizations and reduced outdoor recreation, especially in the middle of the day when temperatures are the warmest.
	Structures	<i>Vulnerability:</i> Older structures are vulnerable to extreme heat. <i>Impacts:</i> Older residential buildings or public spaces without updated cooling systems may struggle to maintain safe indoor temperatures. Rising temperatures also increase energy demand and strain HVAC systems. Heat can strain infrastructure and increase cooling costs.
	Economic Assets	<i>Vulnerability:</i> Outdoor businesses are vulnerable to extreme heat.

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
		<i>Impacts:</i> Businesses that rely on outdoor activity, such as recreation or construction, may see reduced productivity or schedule delays. High cooling costs may strain household and commercial budgets. Employers might have to limit work hours, impacting their profit margins. Construction work done outdoors would be impacted, especially if frequent breaks and shaded areas are required.
	Natural, Historic, and Cultural Resources	<i>Vulnerability:</i> Parks, natural ecosystems, and historic sites are vulnerable to extreme heat. <i>Impacts:</i> Extended heat can dry out vegetation in parks and open areas, stressing local ecosystems. Historic buildings may experience accelerated deterioration from thermal expansion and contraction.
	Critical Facilities and Infrastructure	<i>Vulnerability:</i> Community centers, healthcare facilities, and power infrastructure are vulnerable to extreme heat. <i>Impacts:</i> Healthcare facilities may experience an uptick in heat-related emergencies. Cooling centers, shelters, and power infrastructure may become strained during long heatwaves.
	Community Activities	<i>Vulnerability:</i> Community events are vulnerable to extreme heat. <i>Impacts:</i> Community events may be canceled or rescheduled due to safety concerns. Shade structures, water stations, and medical support will be essential for maintaining safe public gatherings.
Extreme Cold	People	<i>Vulnerability:</i> Residents who lack adequate shelter or are part of vulnerable populations are at risk from extreme cold. <i>Impacts:</i> Kearns residents who lack adequate heating or live in older homes may face serious risks during winter storms. Elderly residents, children, and those experiencing homelessness are particularly at risk for hypothermia and frostbite.
	Structures	<i>Vulnerability:</i> Older structures are vulnerable to extreme cold. <i>Impacts:</i> Freezing temperatures can lead to burst pipes, roof damage, and structural degradation—especially in homes without modern insulation. Temperature fluctuations increase building stress.
	Economic Assets	<i>Vulnerability:</i> All Kearns businesses are vulnerable to extreme cold. <i>Impacts:</i> Cold weather can interrupt daily operations, damage storefronts, and raise heating costs. Unmaintained roads may prevent employees from getting to work or delivering goods.
	Natural, Historic, and Cultural Resources	<i>Vulnerability:</i> Vegetation, wildlife, and historical sites are vulnerable to extreme cold. <i>Impacts:</i> Severe frost and ice accumulation can damage ornamental trees, wildlife habitats, and historic landmarks, particularly those older structures vulnerable to moisture infiltration.
	Critical Facilities and Infrastructure	<i>Vulnerability:</i> Emergency response systems, roads, power systems, and water systems are vulnerable to extreme cold. <i>Impacts:</i> Cold weather may impair fire, police, and emergency service response if vehicles or equipment are impacted. Ice and snow accumulation can disrupt road access and power delivery. Burst pipes could impact essential services like electricity and clean, running water.
	Community Activities	<i>Vulnerability:</i> Community events are vulnerable to extreme cold.

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
		<i>Impacts:</i> Cold snaps may limit participation in community events or public access to outdoor amenities. The Olympic Oval and similar venues may need heating contingency plans and enhanced visitor protocols. Some events may be postponed or canceled. Access to activities, whether indoor or outdoor, could be impacted by the ability to travel there. If cars cannot start, access to both community activities as well as essential services and work may be impacted.
Flooding (and Heavy Rain)	People	<i>Vulnerability:</i> Flooding in Kearns is typically low-risk but may result from regional overflow or localized, extreme rain events. No significant waterways or flood hazard zones are in Kearns. <i>Impacts:</i> Residents in low-lying areas or near drainage channels may face water intrusion and access issues.
	Structures	<i>Vulnerability:</i> The risk to structures from flooding and heavy rain is low. <i>Impacts:</i> Buildings exposed to runoff may suffer water damage to foundations and basements. Aging stormwater infrastructure may not handle high rainfall volumes effectively.
	Economic Assets	<i>Vulnerability:</i> Business supply chains and transportation are vulnerable to flooding. <i>Impacts:</i> Kearns could have indirect impacts from flooding in neighboring jurisdictions that contributes to business losses. Flooding may interrupt supply chains, delay commuting, or result in temporary business closures. Cleanup costs can burden uninsured property owners.
	Natural, Historic, and Cultural Resources	<i>Vulnerability:</i> Parks, trails, and historic sites are vulnerable to flooding. <i>Impacts:</i> Saturated soils and runoff may erode parks, damage trails, or harm wildlife habitats. Historic structures could deteriorate from moisture exposure.
	Critical Facilities and Infrastructure	<i>Vulnerability:</i> Risk to Kearns from flooding is low. However, indirect impacts from road or other infrastructure damage outside Kearns is possible. <i>Impacts:</i> Road closures and infrastructure stress may delay emergency services. Overflowing systems may release contaminants into public areas. Damage to major routes like Bangerter Hwy or Mountainview Corridor outside of Kearns due to flooding could impede access to Kearns residents.
	Community Activities	<i>Vulnerability:</i> The risk of flooding is low. <i>Impacts:</i> Water accumulation may temporarily close recreational areas or community venues like the Olympic Oval, affecting scheduled programming.
Landslide/ Slope Failure	People	<i>Vulnerability:</i> The risk of landslide in Kearns is very low. The terrain does not have the variability and slope to generate a landslide.
	Structures	<i>Vulnerability:</i> There is little landslide susceptibility, and the risk to structures in Kearns is very low.
	Economic Assets	None
	Natural, Historic, and	None

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
	Cultural Resources	
	Critical Facilities and Infrastructure	None
	Community Activities	None
Radon	People	<p><i>Vulnerability:</i> Radon exposure is a public health concern in Kearns due to naturally occurring uranium in local soils. According to utahradon.org, 13% of homes tested in Kearns had dangerous radon levels.</p> <p><i>Impacts:</i> Long-term exposure increases lung cancer risk, particularly for residents unaware of indoor air quality.</p>
	Structures	<p><i>Vulnerability:</i> Homes with basements or structural weaknesses are vulnerable to radon.</p> <p><i>Impacts:</i> Homes with basements or poor ventilation are more susceptible to high radon accumulation. Testing and mitigation may be limited by cost.</p>
	Economic Assets	<p><i>Vulnerability:</i> Property values are vulnerable to high radon levels.</p> <p><i>Impacts:</i> High radon levels can affect property values and delay real estate transactions. Lack of widespread mitigation may discourage investment.</p>
	Natural, Historic, and Cultural Resources	<p><i>Vulnerability:</i> Water supply and historic buildings are vulnerable to radon exposure.</p> <p><i>Impacts:</i> Elevated radon may seep into natural aquifers or poorly ventilated historic buildings, compromising health and preservation efforts.</p>
	Critical Facilities and Infrastructure	<p><i>Vulnerability:</i> Public buildings such as schools or city buildings are vulnerable to radon exposure.</p> <p><i>Impacts:</i> Radon can collect in any structure that is exposed through the soil and does not have adequate ventilation. Schools, clinics, and municipal buildings must monitor and mitigate radon to maintain safety, especially in below-grade areas.</p>
	Community Activities	<p><i>Vulnerability:</i> The risk of radon affecting community activities is low.</p> <p><i>Impacts:</i> Radon doesn't typically affect activities because it is primarily a long-term exposure risk. Indoor activities may see lower attendance if health concerns about radon persist, particularly among immunocompromised residents or young families.</p>
High Wind	People	<p><i>Vulnerability:</i> High wind can occur across the city, and all residents are potentially vulnerable.</p> <p><i>Impacts:</i> Individuals outdoors or without adequate shelter during wind events are at risk of injury or death from flying debris or falling objects. Vulnerable populations may face increased risk due to limited mobility or lack of warning systems.</p>
	Structures	<p><i>Vulnerability:</i> All structures are vulnerable to high wind, particularly those in Shadow Ridge Estates mobile home park.</p>

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
		<i>Impacts:</i> Residential homes with large, flat roofs or lightweight materials may struggle to withstand strong winds. Wind can damage roofs, windows, and utility lines. Trees and debris may fall on buildings, especially in areas with aging infrastructure. Mobile homes or other structures that lack secure foundations are highly vulnerable to damage.
	Economic Assets	<i>Vulnerability:</i> All businesses are vulnerable to high wind. <i>Impacts:</i> High winds can disrupt travel, close businesses, and require costly debris removal. Extended power outages and structural repairs may lead to operational downtime and lost revenue. Businesses might have large signs and awnings that can be damaged, leading to business interruptions. Businesses without insurance may face long-term recovery challenges.
	Natural, Historic, and Cultural Resources	<i>Vulnerability:</i> Trees, parks, and historical sites are vulnerable to high wind. <i>Impacts:</i> Strong gusts may damage vegetation and compromise historical landmarks, particularly if not structurally reinforced.
	Critical Facilities and Infrastructure	<i>Vulnerability:</i> Critical facilities and infrastructure are vulnerable to high wind. <i>Impacts:</i> High wind can damage fire and police facilities. Power lines can be knocked down and lead to power outages. Debris can block roads and disrupt emergency response. Power and communication outages can disrupt emergency response and medical care. Infrastructure such as poles, pipes, and service lines may be compromised.
	Community Activities	<i>Vulnerability:</i> Community events and recreation are vulnerable to high wind. <i>Impacts:</i> Events and gatherings, especially at outdoor venues like parks and sports fields or other recreation sites like the Olympic Oval, may be canceled due to safety concerns. Outdoor events like festivals and sporting activities may involve injury from falling debris and damaged structures.
Lightning	People	<i>Vulnerability:</i> Lightning can occur anywhere in Kearns, and all residents are potentially vulnerable. <i>Impacts:</i> Lightning can cause serious injury or death to those near a strike. Individuals caught outside during thunderstorms may be injured by lightning strikes or indirectly via fires or electrical surges. Those participating in outdoor sports and recreation activities, outdoor workers, or unhoused individuals are at higher risk.
	Structures	<i>Vulnerability:</i> All structures are vulnerable to lightning impacts. <i>Impacts:</i> Lightning can cause fires or internal damage to electrical systems in homes and public buildings.
	Economic Assets	<i>Vulnerability:</i> All Kearns businesses are vulnerable to lightning-related incidents. <i>Impacts:</i> Businesses may suffer from downtime or structural repair costs following a lightning-related incident, impacting economic stability. Lightning can damage electronic systems due to power surge.

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
	Natural, Historic, and Cultural Resources	<p><i>Vulnerability:</i> Parks and open spaces are vulnerable to lightning impacts.</p> <p><i>Impacts:</i> Fires or surges can damage parklands and historical sites. Restoration may be expensive if funding is not available.</p>
	Critical Facilities and Infrastructure	<p><i>Vulnerability:</i> Critical facilities, power infrastructure, and communication systems are vulnerable to lightning strikes.</p> <p><i>Impacts:</i> Power surges or fires may interrupt critical services and lead to an increase in medical calls for injuries or burns. Communications towers attract lightning due to their height and metal structure.</p>
	Community Activities	<p><i>Vulnerability:</i> Outdoor events, recreation, and sports to lightning threats.</p> <p><i>Impacts:</i> Outdoor activities may be suspended or canceled during thunderstorms. Community confidence in safety protocols may influence event attendance. Events at Kearns parks and sports fields could be affected.</p>
Severe Winter Weather	People	<p><i>Vulnerability:</i> Severe winter storms are common in the region and can affect the entire community. All residents are vulnerable. Snow accumulation in the Kearns area is often lower compared to areas on the East Bench of the Wasatch.</p> <p><i>Impacts:</i> Severe snowstorms impact those without reliable heating or transportation. Vulnerable populations (elderly, young children, low income, unsheltered persons) may be disproportionately affected by cold, especially those who work outdoors and/or do not have access to reliable heating or if they are unable to perform snow removal. Commuting to work or essential services could be challenging if snow has not been cleared. Heavy snow can increase the risk of injuries due to slips and falls, along with illnesses and other health consequences from exposure to cold. People can be injured in car accidents while driving in severe winter weather conditions. Poor road conditions may prevent people from getting to and from work.</p>
	Structures	<p><i>Vulnerability:</i> All buildings are potentially vulnerable to severe winter weather. Older or weakened structures may be more at risk.</p> <p><i>Impacts:</i> Snow and ice accumulation can lead to roof collapse, frozen pipes, and weakened building materials. Older homes may have weakened roofs or inadequate insulation.</p>
	Economic Assets	<p><i>Vulnerability:</i> All Kearns businesses are vulnerable to severe winter weather.</p> <p><i>Impacts:</i> Cold weather can halt commerce, increase utility costs, and delay services. Local businesses may struggle with decreased vehicle movement and customer traffic.</p>
	Natural, Historic, and Cultural Resources	<p><i>Vulnerability:</i> Parks and historic structures are vulnerable to severe winter weather.</p> <p><i>Impacts:</i> Snow and ice may damage vegetation and place stress on older buildings and historic structures.</p>
	Critical Facilities and Infrastructure	<p><i>Vulnerability:</i> Emergency response facilities and road networks are vulnerable to severe winter weather.</p> <p><i>Impacts:</i> Transportation networks such as Bangerter Highway or I-215 may become impassable during heavy snow or blizzard conditions.</p>

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
		Utilities, such as power and water supply, may be disrupted. Delays in road clearance and increased demand on utilities can hinder emergency operations and access.
	Community Activities	<i>Vulnerability:</i> Community events <i>Impacts:</i> Activities and services may be delayed or canceled due to poor road conditions. This may affect events at the Olympic Oval or Element Event Center. Ensuring heating and shelter provisions becomes a priority.
Tornado	People	<i>Vulnerability:</i> Although tornadoes are not common, they can occur in Kearns. All residents are at risk if a tornado were to occur. <i>Impacts:</i> Tornadoes can cause serious injury or death from blowing debris, uprooted trees, and structural collapse. Individuals in mobile homes, such as Shadow Ridge Estates, or older structures that cannot withstand the strong winds of a tornado are at higher risk of injury. Evacuation may be difficult during short-notice events.
	Structures	<i>Vulnerability:</i> All homes and other structures in Kearns are vulnerable to tornado. Shadow Ridge Estates mobile homes are at high risk. <i>Impacts:</i> Tornadoes can cause complete destruction of homes, businesses, and community landmarks.
	Economic Assets	<i>Vulnerability:</i> All businesses in the path of a tornado are vulnerable. <i>Impacts:</i> Property loss and business interruptions may take months to recover from, especially for uninsured owners. A tornado can affect roads, power, and communication infrastructure, and these disruptions can also impact a business's ability to operate. Closures may lead to lost wages or layoffs, lost revenue, and interruption of supply chains.
	Natural, Historic, and Cultural Resources	<i>Vulnerability:</i> Parks, playgrounds, and vegetation to tornado damage. <i>Impacts:</i> High winds may devastate vegetation and damage cultural assets beyond repair.
	Critical Facilities and Infrastructure	<i>Vulnerability:</i> Critical facilities and infrastructure are all vulnerable effects. <i>Impacts:</i> Emergency response facilities can be damaged by tornado winds and debris, which may affect their operations. Tornadoes can damage power lines or substations, or damage communication towers, which may further disrupt emergency response operations. Roads may be blocked by debris. Essential services and utilities may be overwhelmed by debris or outages. Road access for emergency responders may be blocked. Schools or recreational facilities with large glass windows or weak roofs are at risk.
	Community Activities	<i>Vulnerability:</i> All community events, particularly outdoor recreation, are vulnerable to tornadoes. <i>Impacts:</i> Community events and services may be postponed indefinitely if venues are damaged or perceived as unsafe.
Wildfire	People	<i>Vulnerability:</i> Kearns is not located near the undeveloped foothills. It is mostly urban, so wildfire risk is relatively low. Small brush fires may be possible in open spaces. <i>Impacts:</i> Risk to residents in Kearns is relatively low. Wildfire smoke can cause poor air quality throughout the region, and Kearns

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
		residents, particularly those with respiratory conditions, may be affected by wildfires occurring elsewhere.
	Structures	<i>Vulnerability:</i> Risk to structures in Kearns from wildfire is low. <i>Impacts:</i> A few buildings could be affected if a wildfire were to break out in an undeveloped open lot or park.
	Economic Assets	<i>Vulnerability:</i> Direct risk to businesses in Kearns from wildfire is low. <i>Impacts:</i> Although Kearns does not have businesses near a wildland urban interface, businesses may experience indirect disruptions if a large fire occurs elsewhere in the county. It could impact transportation routes, power supply, or supply chains. Fires may disrupt commerce, damage service sectors, and result in costly insurance claims or uninsured losses.
	Natural, Historic, and Cultural Resources	<i>Vulnerability:</i> Vegetation and parks are vulnerable to wildfire. <i>Impacts:</i> Fires may destroy vegetation, wildlife habitats, and historic landmarks. Recovery may take years.
	Critical Facilities and Infrastructure	<i>Vulnerability:</i> Power lines and water delivery systems may be threatened by wildfire. <i>Impacts:</i> Power or water facilities outside Kearns could be affected by wildfire, disrupting services to the city. Emergency responders from Kearns may be needed for support and may become overloaded.
	Community Activities	<i>Vulnerability:</i> Outdoor events are vulnerable to wildfire impacts. <i>Impacts:</i> Outdoor gatherings may be restricted or have limited visitation due to wildfire smoke. Seasonal programming may shift or be canceled due to increased wildfire risk.
Dam Failure	People	N/A – Dam failure is not a concern in the City of Kearns.
Civil Disturbance	People	Public unrest can strain emergency services and expose residents to injury or disruption in services.
	Structures	Businesses and public buildings may suffer damage or vandalism.
	Economic Assets	Perception of unrest may reduce investment and deter visitors. Cleanup and security measures may be costly.
	Natural, Historic, and Cultural Resources	Historic districts may be targeted or unintentionally damaged. Recovery may be delayed if funding is limited.
	Critical Facilities and Infrastructure	Emergency access and communications may be compromised during a large-scale disturbance.
	Community Activities	Public events may be canceled due to safety concerns. Community morale and participation may decline.
Cyberattack	People	Vulnerable populations may be disproportionately affected by loss of digital services, especially in medical or financial systems.
	Structures	Security systems and building automation may be compromised, risking physical safety or infrastructure failure.
	Economic Assets	Digital disruptions can delay payroll, billing, and commercial transactions, affecting local economic stability.

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
	Natural, Historic, and Cultural Resources	Data loss or infrastructure manipulation may lead to unintentional environmental impacts or failure in preservation systems.
	Critical Facilities and Infrastructure	Water, power, and emergency systems may be disabled or delayed by ransomware or data breaches.
	Community Activities	Community trust may erode if systems managing public events, utilities, or emergency communications are breached.
Hazardous Materials Incident (Transportation & Fixed Facility)	People	With freight rail lines nearby, Kearns residents face risk of exposure in the event of a spill or derailment.
	Structures	Hazmat incidents may require shelter-in-place or evacuation orders. Exposure could damage structural integrity.
	Economic Assets	Local businesses may close temporarily due to contamination risk or cleanup operations.
	Natural, Historic, and Cultural Resources	Flora, fauna, and water quality may suffer. Cultural landmarks may require remediation if affected.
	Critical Facilities and Infrastructure	Emergency access and utilities may be restricted. Hospitals and response teams may face surge capacity.
	Community Activities	The Olympic Oval or nearby public facilities may close or require sanitization, delaying events.
Public Health Epidemic/Pandemic	People	Contagious disease outbreaks impact all residents, but elderly, immunocompromised, and low-income individuals face the greatest risks.
	Structures	Temporary medical or quarantine structures may be needed if healthcare facilities are overwhelmed.
	Economic Assets	Illness outbreaks disrupt the workforce, commerce, and supply chains, impacting local business operations.
	Natural, Historic, and Cultural Resources	Outdoor spaces may be used more frequently, while access to indoor sites may decline.
	Critical Facilities and Infrastructure	Medical centers may reach capacity, and staffing shortfalls may affect essential services.
	Community Activities	Events may be canceled or modified for distancing and health protocols. Public participation may drop due to fear or illness.
Terrorism	People	An intentional attack can lead to significant casualties, fear, and disruption of daily life. Residents may avoid public places post-incident.
	Structures	Explosive or targeted attacks can cause major structural damage and long-term closures.

Hazard	Vulnerable Asset	Description of Vulnerabilities and Impacts
	Economic Assets	The perception of risk may deter investment and tourism. Recovery costs can be substantial, especially for uninsured entities.
	Natural, Historic, and Cultural Resources	Cultural landmarks and historic buildings may be targets or suffer collateral damage.
	Critical Facilities and Infrastructure	Water, power, or emergency systems may be direct targets. Response coordination may be strained.
	Community Activities	Community events may be canceled or permanently relocated due to perceived risk. The Olympic Oval and future Olympic events are high-profile vulnerabilities.

Hazards Not Profiled

Avalanche and dam failure are not profiled for the City of Kearns. The terrain in Kearns is relatively level and not conducive to avalanche, and no previous avalanches have occurred there. No high or significant hazard dams are located in Kearns and no dam inundation boundaries intersect the city.

Jurisdiction-Specific Changes in Vulnerability

Hazard events can impact communities, infrastructures, and ecosystems. The severity of these impacts can be influenced by climate change, population patterns, and land use developments. Understanding these factors is crucial for the city of Kearns to develop a resilient community and minimize the impacts of hazards.

Table 11 displays the unique changes within the community and the related effects on each identified hazard affecting the city of Kearns.

Table 11: Jurisdiction-Specific Changes in Vulnerability in the City of Kearns

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
Avalanche	N/A	N/A	N/A	N/A	N/A
Drought	Public health due to water rationing, loss/damage to green/natural spaces	Extreme/unusual weather, air/water/soil quality issues, increased snowpack melt	Local restaurants or grocery stores may need to get their groceries from areas that are farther away.	Growth in subdivisions and commercial facilities has put increased strain on water supply. In 2023, a new water line, called Zone E Loop 6600 South, was	Increased due to climate change

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
				built to provide Kearns more access to water sources.	
Earthquake	Residential building collapse, given age and unreinforced masonry. Lack of proper maintenance to some structures	Extreme or unusual weather patterns, increased greenhouse gas emissions, and rising sea levels can trigger seismic activity on fault lines.	The population may not feel safe and could choose to live in other areas.	New buildings and infrastructure are built to current building codes providing increased protection from earthquake damage.	Same
Extreme Heat	Public health, water rationing, medical surge, reduction in outdoor activities	Extreme/unusual weather, increased snowpack melt, drought conditions, air/water/soil quality issues	Outdoor workers may need more frequent breaks and adequate shade. Outdoor activities may be reduced, and community events would be canceled, unless restrooms, shade, first aid, and water are guaranteed.	Increased density from new buildings increases extreme heat due to the urban heat island effect.	Increased due to climate change
Extreme Cold	Public health, sheltering needs, transportation issues, access to essential services, warming costs	Extreme/unusual weather	People may struggle to pay heating bills or access essential services, especially if they cannot start their cars or get to public transportation.	During extreme cold events, more buildings running heat mean more stress on the electrical grid.	Increased due to climate change
Flooding	Transportation interruptions, road closures, medical surges, access to essential services	Extreme/unusual weather, ecosystem disruptions, water/soil/air quality	Flooding would significantly impact those with access and functional needs.	More impervious surfaces from residences and commercial facilities increase pluvial flooding across Kearns.	Increased due to climate change

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
				To counteract this, Kearns has instituted conservation landscaping across the city. These include Paul F. Walker 9-11 Memorial Park and KID Office Tank Landscaping.	
Landslide/ Slope Failure	Access to essential services, road closures, debris management, medical surges	Air, water and soil quality issues from the debris	Local businesses or homes may not be able to recover if they don't have funds or an insurance policy.	New development in Kearns has not increased risk of landslides.	Increased due to climate change
Radon	Public health	Air, water, and soil quality issues	People may choose to live in other areas if there are high radon levels in Kearns.	New development in Kearns has not increased risk of radon.	Same
Heavy Rain	Public safety and infrastructure, medical surge, access to essential services	Extreme/unusual weather, flooding, increased snowpack melt, ecosystem damage	Heavy rain could delay essential services like police and fire response.	More impervious surfaces from residences and commercial facilities increase pluvial flooding across Kearns. To counteract this, Kearns has instituted conservation landscaping across the city. These include Paul F. Walker 9-11 Memorial Park and KID Office Tank Landscaping.	Increased due to climate change
High Wind	Public safety and infrastructure,	Extreme/unusual weather, increased	People can get injured, or their homes can have	New development in Kearns has not	Increased due to

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
	debris management, medical surge, access to essential services	precipitation, soil/water/air quality issues	extensive damage in a high wind event.	increased the risk of high winds.	climate change
Lightning	Public safety and infrastructure, medical surge	Extreme/unusual weather, increased wildfire risk	If there are a lot of lightning events in the same area, it can lead to a medical surge. People may choose to move to a different part of the county.	New development in Kearns has not increased the risk of radon.	Increased due to climate change
Severe Winter Weather	Public health and transportation interruptions, access to essential services, road closures	Extreme/unusual weather	People commuting to and from work might have transportation challenges. It can lead to a medical surge if there are a lot of traffic fatalities or falls.	Increased development requires the city of Kearns to plow and provide evacuation during heavy snow.	Increased due to climate change
Tornado	Medical surge, debris management, access to essential services	Air, water, and soil quality issues	Potential injuries and fatalities from a tornado event	Increased development means that more structures are at risk of damage from hurricanes.	Same
Wildfire	Public safety and infrastructure, access to essential services, medical surge, sheltering needs	Extreme/unusual weather, air/water/soil quality issues	Those with access and functional needs will have to seek shelter or know how to get assistance.	New development has not increased the risk of wildfire.	Increased due to climate change
Dam Failure	N/A	N/A	N/A	N/A	N/A

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
Civil Disturbance	Public safety and infrastructure, medical surge	N/A	Social media can impact the likelihood of civil disturbances, potentially inciting violence.	New development has not increased the risk of civil disturbance.	Same
Cyberattack	Public safety and infrastructure (digital), access to essential services, traffic jams or accidents	N/A	Physical security access is a concern if hackers can get into security systems and let themselves in.	New development has not increased the risk of cyberattacks.	Same
Hazardous Materials Incident (Transportation & Fixed Facility)	Train derailment or other transportation accident with hazardous chemicals, public safety and infrastructure	Soil, water, and air quality issues	Local businesses could suffer if customers cannot access them. Those with access and functional needs could compromise their health, depending on the hazardous materials.	New development has not increased the risk of a hazardous materials incident.	Same
Public Health Epidemic/Pandemic	Public health and economic damage, social distancing measures	Air, water, and soil quality issues	Socially vulnerable groups are most at risk, especially if certain businesses or residents don't abide by recommended health protocols.	New development has not increased the risk of pandemics or epidemics.	Same
Terrorism	Public safety and infrastructure, medical surge, access to essential services	N/A	There is potential for a medical surge, which would overwhelm local resources.	New development has not increased the risk of terrorism.	Same

Additional Public Involvement

The city of Kearns provided several opportunities for public participation. Figure 1 and Figure 2 are examples of public outreach efforts.

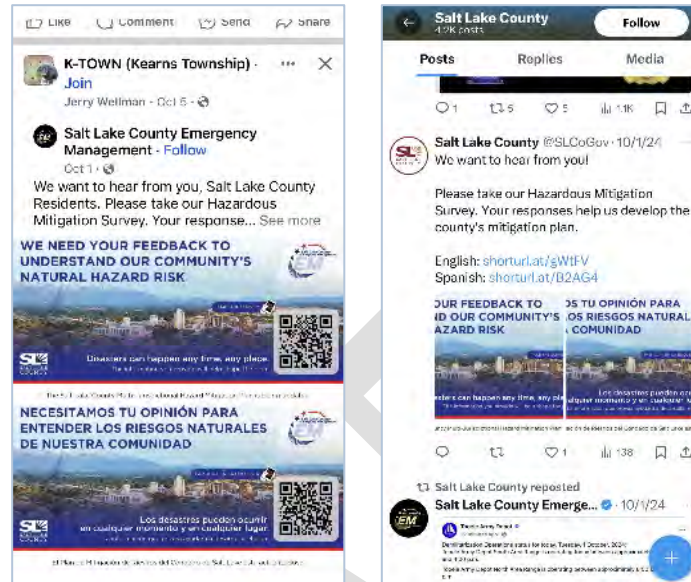


Figure 1: Social Media Posts for the Hazard Mitigation Survey

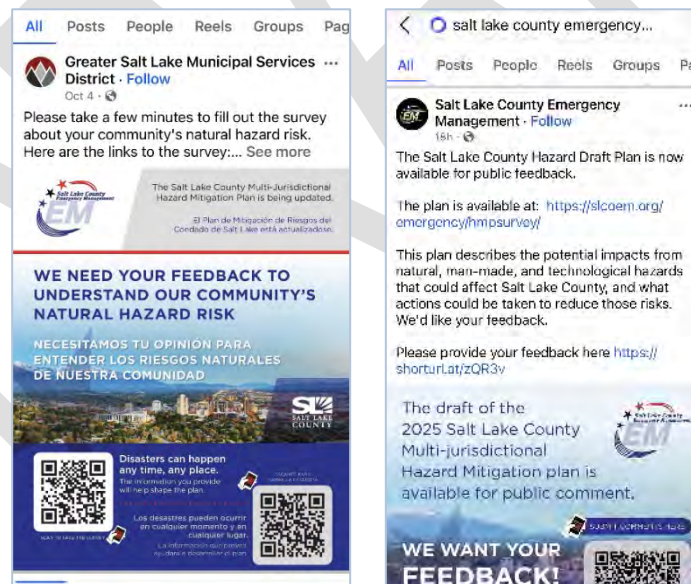


Figure 2: Social Media Posts for the Hazard Mitigation Survey (left) and Hazard Draft Plan Review (right)

Plan Integration

Incorporating the underlying principles of the Hazard Mitigation Plan and its recommendations into other plans is a highly effective and low-cost way to expand their influence. All plan participants will use existing

methods and programs to implement hazard mitigation actions where possible. As previously stated, mitigation is most successful when it is incorporated into the day-to-day functions and priorities of government and public service. This plan builds on the momentum developed through previous and related planning efforts and mitigation programs, and it recommends implementing actions where possible through these other program mechanisms. These existing mechanisms include the following:

- Regularity Capabilities
- Administrative Capabilities
- Fiscal Capabilities

Respective planning stakeholders will conduct implementation and incorporation into existing planning mechanisms and will be done through the routine actions of:

- Monitoring other planning/program agendas
- Attending other planning/program meetings
- Participating in other planning processes; and
- Monitoring community budget meetings for other community program opportunities.

The successful implementation of this plan will require constant and vigilant review of existing plans and programs for coordination and multi-objective opportunities that promote a safe, sustainable community. Regular efforts should be made to monitor the progress of mitigation actions implemented through other planning mechanisms. Where appropriate, priority actions should be incorporated into planning updates. Table 12 lists existing planning mechanisms in which the Hazard Mitigation Plan has been integrated. Table 13 lists the opportunities for integrating elements of this plan into other plans

Table 12: Integration of Previous Plans by the City of Kearns

Plan	Description
Stormwater Management Plan	Overview of stormwater management efforts for Kearns
General Plan	Overview of strategies and goals for Kearns

Table 13: Opportunities for Integration with Future Plans of the City of Kearns

Plan	Description
Master Transportation Plan	Findings from population growth and transportation needs
Active Transportation Plan	Community feedback on alternative travel methods like biking and walking
Moderate Income Housing Plan	Overview of community demographics and housing needs for Kearns

Capability Assessment

Local mitigation capabilities are existing authorities, policies, programs, and resources that reduce hazard impacts or could help carry out hazard mitigation activities.

Planning and Regulatory Capabilities

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards.

Table 14: Assessment of the Planning Capabilities of the City of Kearns³

Plan	Does it address hazards? (Y/N)	How can it be used to implement mitigation actions?	When was the last update? When is the next update?
General Plan	Y	General plan can inform the future of Kearns, which can be incorporated into mitigation actions.	2020
Capital Improvement Plan	Y – in General Plan	Can inform mitigation actions as far as funding sources and the department overseeing the work.	2020
Climate Change Adaptation Plan	N	N/A	N/A
Community Wildfire Protection Plan	Y	CWPP references wildfire mitigation.	2021
Economic Development Plan	Y – Referenced in General Plan	Can inform funding sources for mitigation actions	202
Land Use Plan	Y – Referenced in General Plan	Can inform mitigation actions.	2020.
Local Emergency Operations Plan	Y	Kearns adopted the MSD's plan in 2020. MSD converted its EOP to a CEMP, which was adopted in February 2025.	2025
Stormwater Management Plan	Y	Adopted the MSD's plan and could be incorporated into mitigation actions for flooding.	2020
Transportation Plan	Y	Active Transportation Plan can inform mitigation actions.	2023
Substantial Damage Plan	N	N/A	N/A
Other? (Describe)			

³ CEMP = Comprehensive Emergency Management Plan, CWPP = Community Wildfire Protection Plan, EOP = Emergency Operations Plan, MSD = Municipal Services District,

Table 15: Assessment of the Regulations and Ordinances of the City of Kearns

Regulation/Ordinance	Does it effectively reduce hazard impacts?	Is it adequately administered and enforced?	When was the last update? When is the next update?
Building Code	Building codes inform how structures are built to standard and brought up to code when remodeling occurs. Kearns has several commercial buildings. Kearns has adopted the state versions of the International Building Code (IBC 2021) and International Residential Code (IRC 2021) with amendments.	Y	2001
Flood Insurance Rate Maps	Y – Kearns does not have flood hazard areas, but it is still vulnerable to flooding from surrounding jurisdictions.	Y	2023
Floodplain Ordinance	Y – This is part of the zoning ordinance updated in 2023	Y	2023
Subdivision Ordinance	Y	Y	2024
Zoning Ordinance	Y	Y	2023
Natural Hazard-Specific Ordinance (Stormwater, Steep Slope, Wildfire)	No steep slope concern in Kearns. Ordinances concerning the obstruction of stormwater along with permit applications not interfering with the safe disposal of natural stormwaters/ floodwaters. A Storm Water Pollution Prevention Plan is required for land disturbance permits. Kearns has floodplain hazard regulations and geological hazard regulations.	Y	2023
Acquisition of Land for Open Space and Public Recreation Use	Kearns is built out to its boundaries in all directions. New growth occurs only when land is rezoned or repurposed.	Y	2023
Prohibition of Building in At-Risk Areas	Y	Y	2023
Other? (Describe)			

Administrative and Technical Capabilities

Administrative and technical capabilities include staff and their skills. They also include tools that can help carry out mitigation actions.

Table 16: Assessment of the Administrative Capabilities of the City of Kearns

Administrative Capability	In Place? (Y/N)	Is staffing adequate?	Are staff trained on hazards and mitigation?	Is coordination between agencies and staff effective?
Chief Building Official	Y – MSD	Need more building inspectors.	Yes, but more training is always good.	Yes
Civil Engineer	Y – MSD	Yes	Yes, but more training is always good.	Yes
Community Planner	Y – MSD	Yes	Yes, but more training is always good.	Yes
Emergency Manager (EM)	Y	No, need designated full-time EM.	Yes, but more training is always good.	Yes
Floodplain Administrator	Y – MSD	Yes	Yes, but more training is always good.	Yes
Geographic Information System (GIS) Coordinator	Y – MSD	Yes	Yes, but more training is always good.	Yes
Planning Commission	Y	Yes	Yes, but more training is always good.	Yes
Fire Safe Council	N – The Unified Fire Authority (UFA) controls fire service.	N/A	N/A	Yes
CERT (Community Emergency Response Team)	N	N/A	N/A	N/A
Active VOAD (Voluntary Agencies Active in Disasters)	Y	Yes	Yes, but more training is always good.	Yes
Other? (Please describe.)				

Table 17: Assessment of the Technical Capabilities of the City of Kearns⁴

Technical Capability	In Place? (Y/N)	How has it been used to assess/mitigate risk in the past?	How can it be used to assess/mitigate risk in the future?
Mitigation Grant Writing	Yes – MSD	Not used yet. Kearns is part of the MSD, Kearns just became a city on May 1, 2024. All services are currently contracted out through UFA, UPD, the MSD, or Salt Lake County.	Can be used to apply for grant funding to complete mitigation work.
Hazard Data and Information	Yes – MSD	Was used to identify known risks and areas of concern.	Can help with project tracking and identifying areas to prioritize for mitigation actions.
GIS	Yes – MSD	Was used to map out known hazards and identify areas of concern. GIS was also used to collect damage assessment information after the 2020 earthquake.	Can help with project tracking and identifying areas to prioritize for mitigation actions.
Mutual Aid Agreements	Yes – MSD & Salt Lake County	Mutual aid agreements for sheltering, damage assessments, public works (debris removal, snow removal)	Mutual aid can be used to prioritize mitigation efforts.
Other? (Please describe.)			

Financial Capabilities

Financial capabilities are the resources to fund mitigation actions. Talking about funding and financial capabilities is important to determine what kinds of projects are feasible, given their cost. Mitigation actions like outreach programs are lower cost and often use staff time and existing budgets. Other actions, such as earthquake retrofits, could require substantial funding from local, state, and federal partners. Partnerships, including those willing to donate land, supplies, in-kind matches, and cash, can be included.

Table 18: Assessment of the Financial Capabilities of the City of Kearns

Funding Resource	In Place? (Y/N)	Has this funding resource been used in the past and for what types of activities?	Could this resource be used to fund future mitigation actions?	Can this be used as the local cost match for a federal grant?
Capital Improvement Project Funding	Y	Yes, storm drain and water management	Yes	Yes
General Funds	Y	Yes	Yes	Yes

⁴ UFA = Unified Fire Authority, UPD = Unified Police Department, MSD = Municipal Services District

Funding Resource	In Place? (Y/N)	Has this funding resource been used in the past and for what types of activities?	Could this resource be used to fund future mitigation actions?	Can this be used as the local cost match for a federal grant?
Hazard Mitigation Grant Program (HMGP/404)	N	No, could be used.	No	No
Building Resilient Infrastructure & Communities (BRIC)	N	No, could be used.	No	No
Flood Mitigation Assistance (FMA)	N	No, could be used.	No	No
Public Assistance Mitigation (PA Mitigation/406)	N	No, could be used.	No	No
Community Development Block Grant (CDBG)	Y	Developed interlocal agreement with CDBG and Emergency Solutions Grant Program.	No	No
Natural Resources Conservation Services (NRCS) Programs	N	No, could be used.	No	No
U.S. Army Corps (USACE) Programs	N	No, could be used.	No	No
Property, Sales, Income, or Special Purpose Taxes	Y	Yes, capital improvement projects	No	No
Stormwater Utility Fee	Y	Yes, Stormwater management	Yes	Yes
Fees for Water, Sewer, Gas, or Electric Services	Y	Yes, stormwater maintenance	Yes	Yes
Impact Fees from New Development and Redevelopment	Y	Code enforcement	Yes	Yes
General Obligation or Special Purpose Bonds	Y	Stormwater management	Yes	Yes
Federal-funded Programs (Please describe)	Y	No, could be used	No	No
Private Sector or Nonprofit Programs	N	No, could be used	Yes	Yes
Other?	Y	Small Business Impact Grant for COVID-19 business owners.	Yes	No

Education and Outreach Capabilities

Education and outreach capabilities are programs and methods that could communicate about and encourage risk reduction. These programs may be run by a participant or a community-based partner. Partners, especially those who work with underserved communities, can help identify additional education and outreach capabilities.

Table 19: Assessment of the Education and Outreach Capabilities of the City of Kearns⁵

Education and Outreach Capability	In Place? (Y/N)	Does it currently incorporate hazard mitigation?	Could it be used to support mitigation in the future?
Community Newsletter(s)	Y	Y	Y
Hazard Awareness Campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, School Programs)	Y – through UFA and SLCo EM	Y	Y
Public Meetings/Events (Please describe.)	Y – City council meetings are open to the public at the library.	Y	Y
Emergency Management Listserv	Y	Y	Y
Local News	Y	Y	Y
Distributing Hard Copies of Notices (e.g., public libraries, door-to-door outreach)	Y	Y	Y
Insurance Disclosures/Outreach	N	N	Y
Organizations that Represent, Advocate for, or Interact with Underserved and Vulnerable Communities (Please describe.)	Y	Y	Y
Social Media (Please describe.)	Y	Y	Y
Other? (Please describe.)			

Opportunities to Expand and/or Improve Capabilities

Actions that can expand and improve existing authorities, plans, policies, and resources for mitigation include budgeting for mitigation actions, passing policies and procedures for mitigation actions, adopting and implementing stricter mitigation regulations, approving mitigation updates, and making additions to existing plans as new needs are recognized. Table 20 lists the opportunities for the city of Kearns.

⁵ UFA = Unified Fire Authority, MSD = Municipal Services District

Table 20: Opportunities to Expand and/or Improve the Capabilities of the City of Kearns⁶

Capability	Opportunity to Expand and/or Improve
Planning and Regulation	Kearns is part of the MSD, and it just became a city on May 3, 2024, so it is now building out a city leadership team. All services are currently contracted out to UPD, UFA, the MSD, or Salt Lake County. As it moves forward, the city must decide if it wants to continue those contracts or start its own. For example, Kearns can evaluate the MSD CEMP and Stormwater Management Plan and determine if all risk is effectively incorporated or if additional local input should be integrated.
Administrative and Technical	Kearns is part of the MSD, and it just became a city on May 3, 2024, so it is now building out a city leadership team. All services are currently contracted out to UPD, UFA, the MSD, or Salt Lake County. As it moves forward, the city must decide if it wants to continue those contracts or start its own. For example, Kearns could acquire additional mitigation grant writing support. The city could seek additional support such as through federal or state direct technical assistance programs for mitigation grants to expand these grant writing capabilities.
Financial	As of this writing, the city's budget is still in development. Adding mitigation actions to the budget would increase the likelihood of their implementation. Additionally, the city could apply for new Hazard Mitigation Assistance (HMA) grants.
Education and Outreach	Kearns is part of the MSD, and it just became a city on May 3, 2024, so it is now building out a city leadership team. All services are currently contracted out to UPD, UFA, the MSD, or Salt Lake County. As it moves forward, the city must decide if it wants to continue those contracts or start its own. UPD, UFA, and Salt Lake County have community outreach programs. Kearns can explore what kinds of programs would be best handled at the County level, versus what kind of educational activities for hazard mitigation such as public meetings or social media posts, could be handled at the local level. Kearns can continue to engage in preparedness activities and incident response training to improve overall readiness and community resilience.

Mitigation Strategy

Mitigation strategies provide proactive measures that are designed to minimize the impacts of hazards on the city of Kearns. Table 21 shows mitigation action alternatives, and Table 22 shows the status of previous mitigation activities. Table 23 is the 2025 mitigation action plan for the city of Kearns.

Table 21: Mitigation Action Alternatives for the City of Kearns

Action	Type of Action	Selected for inclusion in the plan?	If not selected, why not?
Continue social media engagement.	Education and Awareness Programs	Y	
Adopt new building codes as they are approved to bring some existing structures up to current codes.	Structure and Infrastructure Projects	N	Refined this to address code enforcement for specific hazards.

⁶ CEMP = Comprehensive Emergency Management Plan, HMA = Hazard Mitigation Assistance, MSD = Municipal Services District UFA = Unified Fire Authority, UPD = Unified Police Department.

Table 22: Status of Prior Mitigation Actions of the City of Kearns⁷

Action	Hazard(s)	Agency Lead	Support Agency(ies)	Status Update
Asbestos removal	Public Health, Hazardous Materials Release	UDEQ	Kearns	Ongoing – Community health programming to abate asbestos in homes
Seismic retrofitting.	Earthquake	Kearns	MSD	Ongoing.
Fireline along the railroad tracks to mitigate wildfires from occurring and affecting nearby neighborhoods.	Wildfire	Union Pacific Railroad	Kearns	Ongoing discussion – land maintenance.
Procure and install an emergency notification system.	All hazards	Kearns	SLCo EM	Complete.
Create an Emergency Operations Plan.	All hazards	Kearns	MSD	Complete.
The bridge at 4015 W lacks load capacity for emergency services vehicles and needs to be replaced or retrofitted. This is an important roadway that connects many communities in the county.	All hazards; Flooding, Winter Storms, Severe Thunderstorms	Kearns	Taylorsville	Incomplete – 4015 W Bridge is being replaced by Kearns in 2024/2025.

⁷ MSD = Municipal Services District, UDEQ = SLCo EM = Salt Lake County Emergency Management, Utah Department of Environmental Quality.

THIS PAGE INTENTIONALLY LEFT BLANK

Table 23: 2025 Mitigation Action Plan for the City of Kearns⁸

#	Action	Hazard(s)	Lead Agency	Potential Partners	Benefits (Losses Avoided)	Cost Estimate	Funding Source(s)	Timeframe	Priority	Comments
1	Enhance security at critical infrastructure locations to prevent potential for terrorist acts.	Terrorism	SLCo EM	Kearns, UPD, UFA, MSD, SLCo IT, SLCo Public Works, SLCo Clerk's Office, SLCo Sheriff's Office	Increased security protocols (both in technology and policy) for staff/first responders, clear expectations/understanding for Kearns and the public.	Medium	SLCo EM general fund, Kearns general funds, UPD general funds, SLCo Sheriff's Office general funds, UFA general funds, MSD general funds, HSGP grant	Short term	Medium	
2	Develop and implement public education programs on disaster awareness and mitigation.	Civil Disturbance, Drought, Wildfire, Earthquake, Extreme Heat, Extreme Cold, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide/Slope Failure, Lightning, Public Health Epidemic/Pandemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	SLCo EM	Kearns, UFA, UPD, SLCo Sheriff's Office, SLCo Public Works, local utilities, NGO partners, MSD	Increased understanding of local resources, improved relationships with the public and stakeholders. Outlined plans/SOPs for programs. For example, educating the public on seismic and non-structural retrofits for homes can enable them to make informed decisions on how to reduce their risk from earthquakes.	Low	SLCo EM general funds, Kearns general funds, MSD general funds, HSGP grant, SHSP grant	Short term	Medium	
3	Integrate WebEOC, Crisis Track, GIS, and other technological enhancements throughout the county.	Civil Disturbance, Drought, Wildfire, Earthquake, Extreme Heat, Extreme Cold, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide/Slope Failure, Lightning, Public Health Epidemic/Pandemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	Kearns	SLCo EM, UFA, UPD, SLCo Public Works, SLCo Health Department, MSD, UDEM	Common operating platform for stakeholders, increased situational awareness, improved response time.	Low	SLCo EM general funds, UFA general funds, Kearns general funds, MSD general funds, HSGP grant, Emergency Operations Center grant	Long term	Medium	Kearns already has this software; need to improve training and documentation.
4	Enhance and continue to promote the implementation of CERT and SAFE Hubs.	Civil Disturbance, Drought, Wildfire, Earthquake, Extreme Heat, Extreme Cold, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide/Slope Failure, Lightning, Public Health Epidemic/Pandemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	SLCo EM	Kearns, MSD, Granite School District, UFA, UPD, NGO partners	Increased awareness of local resources.	Low	SLCo EM general funds, Kearns general funds, MSD general funds	Short term	Medium	SAFE Hubs (previously S.A.F.E. Neighborhoods) is rebranding, with a new public awareness campaign and information for all partners.
5	Establish access and functional needs registry and ensure that those	Civil Disturbance, Drought, Wildfire, Earthquake, Extreme Heat, Extreme	SLCo EM	Kearns, MSD, UFA, UPD, SLCo Sheriff's Office, SLCo Health Department,	Increased situational awareness for the public and stakeholders, greater	Low	SLCo EM general funds, Kearns general	Short term	High	The State of Utah's Access and Functional Needs Registry is dissolving in 2025. The county

⁸ ATF = Bureau of Alcohol, Tobacco, Firearms and Explosives, BRIC = Building Resilient Infrastructure and Communities, CWPP = Community Wildfire Protection Plan, DHS = Department of Homeland Security, ESPG = Enhanced Security Grant Program, FBI = Federal Bureau of Investigation, FFSL = Division of Forestry, Fire, and State Lands, FMA = Flood Mitigation Assistance, HMA = Hazard Mitigation Assistance, HSGP = Homeland Security Grants Program, IPAWS = Integrated Public Alert and Warning System, LEPC = Local Emergency Planning Committee, MSD = Municipal Services District, NGO = nongovernmental organization, NRCS = Natural Resources Conservation Service, NWS = National Weather Service, PDM = Pre-Disaster Mitigation, SHSP = State Homeland Security Program, SIAC = Statewide Information and Analysis Center, SLCo = Salt Lake County, SLCo EM = Salt Lake County Emergency Management, SLCo IT = Salt Lake County Information Technology, SOP = Standard Operating Procedure, UDEM = Utah Division of Emergency Management, UDEQ = Utah Department of Environmental Quality, UDOT = Utah Department of Transportation, UFA = Unified Fire Authority, UPD = Unified Police Department.

#	Action	Hazard(s)	Lead Agency	Potential Partners	Benefits (Losses Avoided)	Cost Estimate	Funding Source(s)	Timeframe	Priority	Comments
	with access and functional needs are included in plans.	Cold, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide/Slope Failure, Lightning, Public Health Epidemic/Pandemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire		SLCo Aging and Adult Services	understanding of resources available for those with access and functional needs.		funds, MSD general funds, HSGP grant			needs a way to account for those with access and functional needs, including incorporation into plans and SOPs.
6	Procure generators and transfer switches for schools, public facilities, and critical facilities.	Extreme Heat, Extreme Cold, Heavy Rain, High Wind	MSD	Granite School District, SLCo Facilities Management, Kearns, UFA, UPD, SLCo EM, water districts, local utilities	Backup generators available at cooling centers and Code Blue centers. Accurate inventory of what Kearns and the MSD can provide to other agencies or jurisdictions as needed.	Medium	MSD general funds, Kearns general funds, HMA grant	Long term	Medium	
7	Increase the size of culverts and bridges in areas that have been identified as past or potential flooding concerns.	Flooding, Heavy Rain	SLCo Flood Control Engineering	MSD Stormwater, Kearns, water districts, local utilities, UDOT	Allow for larger runoff during spring melt season, reduce the amount of debris build-up.	High	SLCo Flood Control Engineering capital improvement fund, UDOT capital improvement fund, MSD capital improvement funds, Kearns general funds, PDM grant, HMGP grant, FMA, NRCS grant	Long term	Medium	
8	Procure FMA grants.	Flooding, Heavy Rain	SLCo Flood Control Engineering	SLCo MSD Stormwater, Kearns, SLCo EM, water districts, local utilities	Improved understanding of grants available and how money can be used for mitigation efforts.	Low	FMA, Kearns general funds, MSD general funds, SLCo Flood Control Engineering	Long term	Medium	
9	Be a part of the enhanced emergency notification communications system for the county.	Civil Disturbance, Drought, Earthquake, Extreme Cold, Extreme Heat, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide/Slope Failure, Lightning, Public Health Epidemic/Pandemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	SLCo EM	MSD, UFA, UPD, Kearns, UDOT, SLCo Sheriff's Office, NWS	Early notification of impending wildfire to decrease loss of life. Improved relationships with the public and stakeholders. Faster delivery of information with templates/plans ready to go.	Medium	SLCo EM general funds, MSD general funds, Kearns general funds, HSGP grant, BRIC grant	Short term	Medium	Estimation of \$1 million, with costs shared between local jurisdictions/agencies and the county. SLCo EM has been working on developing IPAWS templates and identifying streamlined communication.
10	Promote the Firewise initiative and regularly review/update the Community Wildfire Protection Plans (CWPP).	Wildfire	SLCo Fire Warden	SLCo EM, UFA, Kearns, FFSL, MSD	Increased awareness of plans (for the public and stakeholders), improved eligibility for grants and other funding sources, regular review of CWPP.	Low	SLCo EM general funds, MSD general funds, Kearns general funds, Community Wildfire Assistance grant, Fire Prevention and Safety grant	Short term	Medium	

#	Action	Hazard(s)	Lead Agency	Potential Partners	Benefits (Losses Avoided)	Cost Estimate	Funding Source(s)	Timeframe	Priority	Comments
11	Conduct public awareness campaign on Tier 2 reporting software for chemical reporting.	Hazardous Materials Incident	SLCo EM	UPD, Kearns, UFA, SLCo Health Department, Utah Department of Environmental Quality, water districts, Granite School District, local utilities, SLCo Sheriff's Office, LEPC	Improved understanding of Tier 2 reporting and how local agencies and Kearns can find and submit information. A common operating platform for hazardous materials reporting.	Low	SLCo EM general funds, LEPC, Kearns general funds, UDEQ general funds, MSD general funds	Long term	Medium	
12	Enact citywide regulations and codes for development to reduce landslide and slope failure damage to critical infrastructure and buildings.	Landslide and Slope Failure	MSD	SLCo EM, UFA, Kearns, SLCo Office of Regional Development, local utilities	Reduced likelihood of landslides and damage to critical infrastructure/buildings. Future development that is up to code and follows policy to avoid repetitive loss properties.	Medium	SLCo Office of Regional Development general funds, MSD general funds, Kearns general funds	Long term	Medium	
13	Leverage WebEOC and GIS to track the spread of contagious diseases.	Public Health Epidemic/Pandemic	SLCo Health Department	SLCo EM, UFA, MSD, UPD, SLCo Sheriff's Office, Kearns	Use of GIS and WebEOC software to maintain situational awareness and track illnesses in Kearns.	Low	SLCo EM general funds, Kearns general funds, SLCo Health Department general funds, UDEQ general funds	Short term	Medium	Kearns already has this software; need to improve training and documentation.
14	Create public awareness campaigns and public education programs on radon risks and provide home testing for radon.	Radon	SLCo EM	SLCo Aging and Adult Services, SLCo Health Department, Kearns, MSD, SLCo Health Department	Fewer radon-caused cancer deaths. Increased engagement/understanding with the public on what SLCo can do or help with.	Low	SLCo Health Department general funds, Kearns general funds, MSD general funds	Short term	Low	
15	Develop road resurfacing project, including permeable pavement for areas with rain-based flooding.	Severe Weather – Heavy Rain	SLCo Public Works & Municipal Services	MSD, Kearns, UDOT	Reduced discharge of pollutants in runoff, reduced maintenance time/costs on roads, improve traction on roads	High	SLCo Public Works & Municipal Services capital improvement funds, UDOT capital improvement funds, Kearns general funds, MSD general funds, FMA, HMGP grant	Long term	Low	
16	Create a public education program to inform property owners about tree maintenance and high strength windows.	Severe Weather – High Wind	SLCo EM	SLCo Aging and Adult Services, SLCo Public Works & Municipal Services, UFA, Kearns, MSD, NWS	Reduced damage during high wind event to critical infrastructure. Fewer personal injuries (people driving on roads or walking in neighborhood). Improved relationships with stakeholders and the public.	Low	SLCo Public Works & Municipal Services general funds, SLCo EM general funds, UFA general funds, MSD general funds, Kearns general funds	Short term	Low	
17	Develop a severe winter weather mitigation program to ensure access to primary roadways and evacuation routes.	Severe Winter Weather – Heavy Snow, Blizzard	SLCo Public Works & Municipal Services	SLCo EM, Kearns, MSD, UDOT	Emergency services like police, fire, and paramedics able to use roads to provide their services.	Medium	MSD general funds, SLCo EM general funds, Kearns general funds	Short term	High	A severe winter storm with heavy snowfall requires our operators and equipment to be used to clear roads and streets for the public and emergency vehicles to use. The primary efforts will be to keep the roads open by clearing snow.

#	Action	Hazard(s)	Lead Agency	Potential Partners	Benefits (Losses Avoided)	Cost Estimate	Funding Source(s)	Timeframe	Priority	Comments
18	Conduct public awareness campaign about lightning safety.	Severe Weather – Lightning	SLCo EM	SLCo Parks and Recreation, UFA, SLCo Public Works & Municipal Services, Kearns, MSD, NWS	Lightning strike awareness for the public.	Low	SLCo EM general funds, MSD general funds, NWS, Kearns general funds	Short term	Low	
19	Improve outreach for “see something, say something” QR code to deter terrorist acts.	Terrorism (including a Cyberattack)	SLCo EM	SLCo Sheriff’s Office, UPD, UFA, MSD, Kearns, SLCo IT	Increased awareness by residents and local agencies/jurisdictions about local intelligence resources and ways in which they can report suspicious activity. Increased QR code use/outreach at special events in Kearns.	Low	SLCo EM general funds, Kearns general fund, MSD general fund	Short term	Medium	
20	Be a part of the countywide intelligence group/division to monitor and analyze threats before an incident occurs.	Terrorism (including Cyberattacks)	SLCo EM	Kearns, SLCo Sheriff’s Office, SIAC, DHS, ATF, FBI, MSD	Central group to collect and analyze information, development of SOPs for intelligence, greater collaboration.	Low	ESGP grant, SHSP grant, SLCo EM general funds, Kearns general funds, MSD general funds	Short term	Medium	This would be a core group of stakeholders that meet on a regular basis to share and collaborate on intelligence data.
21	Code Enforcement – Review critical infrastructure facilities to ensure that building materials are up to code and are tornado resistant.	Tornado	MSD	Kearns, SLCo Public Works & Municipal Services, SLCo Facilities Management, UFA, UPD, UDEM	Critical infrastructure facilities that are operational/functional in the event of a disaster. Increased life safety.	Medium	SLCo EM general funds, MSD general funds, Kearns general funds, UFA general funds, UPD general funds	Short term	Low	
22	Enhance interoperable radio communications systems throughout Kearns.	Civil Disturbance, Drought, Earthquake, Extreme Heat, Extreme Cold, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide/Slope Failure, Lightning, Public Health Epidemic/Pandemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	SLCo EM	Kearns, UFA, UPD, SLCo Sheriff’s Office, NGO partners, MSD	Improved communication between different agencies, common operating platform.	Medium	Kearns general funds, MSD general funds, HSGP grant	Short term	Medium	
23	Be a part of the countywide single source of information sharing/gathering for intelligence.	Civil Disturbance, Terrorism	SLCo EM	Kearns, SLCo Sheriff’s Office, SIAC, MSD, UPD	Improved coordination between local agencies/jurisdictions.	Medium	HSGP grant, MSD general funds, Kearns general funds	Short term	Medium	Have one common operating platform to be used by all agencies in Kearns to collect suspicious activity reports. Develop a public awareness campaign to educate the public on how and what to report.
24	Install xeriscaping at government-owned buildings.	Drought, Extreme Heat	MSD	Water companies/districts, Kearns, SLCo Facilities Management, UFA, UPD, local utilities, State of Utah	Reduced cost of landscape irrigation, decreased water use	High	SLCo Facilities Management general funds, Kearns general funds, MSD general funds	Short term	Low	
25	Improve communication to the public and	Severe Winter Weather	SLCo EM	Kearns, MSD, State of Utah, NWS, SLCo Health	Reduced damage to critical infrastructure, homeless	Low	SLCo EM general funds, SLCo Health	Short term	Low	

#	Action	Hazard(s)	Lead Agency	Potential Partners	Benefits (Losses Avoided)	Cost Estimate	Funding Source(s)	Timeframe	Priority	Comments
	stakeholders on resources available when Code Blue is in effect during severe winter weather.			Department, SLCo Office of Homelessness and Criminal Justice Reform	individuals have access to warming resources, reduced pressure on local homeless resource providers with standard protocols to follow with Code Blue.		Department general funds, Kearns general funds, MSD general funds			
26	Remove asbestos to prevent health hazards.	Hazardous Materials Release	Kearns Health Department	Utah Department of Environmental Quality	Reduced health damages from asbestos.	Medium	Kearns general funds	Medium term	Low	
27	Retrofit buildings to withstand earthquakes.	Earthquake	Kearns Public Safety	Kearns Code Enforcement	Reduced damages from earthquakes to facilities.	Medium	Kearns general funds, HMGP	Medium term	Medium	
28	Fireline along the railroad tracks to mitigate wildfires from occurring and affecting nearby neighborhoods.	Wildfire	Kearns Public Safety	Union Pacific Railroad	Reduced risk of fire sparking at train tracks.	Medium	Union Pacific Railroad general funds, Kearns general funds	Medium term	Medium	
29	The bridge at 4015 West lacks load capacity for emergency services vehicles and needs to be replaced or retrofitted. This is an important roadway that connects many communities in the county.	Flooding, Winter Storms, Severe Thunderstorms	Kearns Public Safety	SLCo EM	Improved access to sites in Kearns for emergency services.	High	Kearns general funds, HMGP	Short term	High	

THIS PAGE INTENTIONALLY LEFT BLANK