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Town of Brighton Annex

To participate in this multi-jurisdictional hazard mitigation plan (MJHMP) update for Salt Lake County (SLCo), the governing body of the town of Brighton 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 Town of Brighton

Name	Contact Information
Jane Martain	Phone: 801-554-1007; email: janemartain@brighton.utah.gov

The town of Brighton 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 Town of Brighton

Name	Title	Jurisdiction
Jane Martain	City Manager	Town of Brighton

Jurisdiction Profile

Date of Incorporation

January 1, 2020

Location and Description

The town of Brighton is a newly incorporated community located at the top of Big Cottonwood Canyon. The town is approximately 15.9 square miles in area and is approximately 8,700 feet above sea level. The town of Brighton is the home of the Brighton Ski Resort and the Solitude Mountain Resort. Figure 1 is a map of the town.

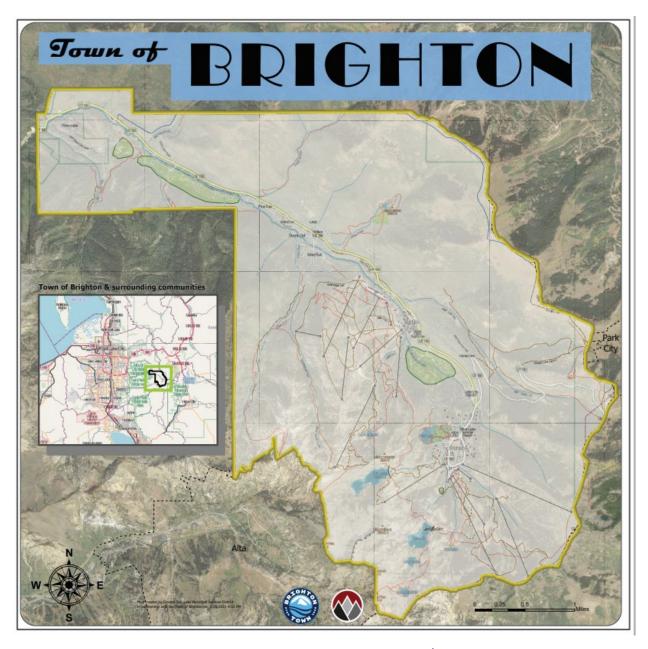


Figure 1: Map of the Town of Brighton¹

Population

The 2022 American Community Survey 5-Year Estimate from the U.S. Census Bureau records the population of the town of Brighton as 353 people.

¹ Town of Brighton Map. https://www.brighton.utah.gov/media/2491.

Demographics

Most of the 353 people are between the ages of 25 and 34, with a median age of 43.1; 182 (51.6%) are males and 171 (48.4%) are females. English is the primary language in 99.4% of homes,.

Brief History

The town of Brighton boasts a storied history that began in 1871 with its initial settlement by Scottish immigrants William and Catherine Brighton who established a rustic hotel that quickly became a favored spot for visitors enjoying the natural beauty of Big Cottonwood Canyon. In 1936, the Brighton Ski Resort was founded, marking it as one of Utah's earliest ski destinations. As the community grew, residents voted to incorporate the town, with Brighton officially incorporating on January 1, 2020.

Climate

The town of Brighton experiences a continental climate (Dsa Köppen classification), characterized by dry, hot summers and cold winters, with significant temperature variations throughout the year. Average highs are approximately 81°F in the summer and approximately 15°F in the winter. Rain each year is approximately 15.3 inches, and snowfall averages 500 inches.

Public Services

The town of Brighton offers a wide range of public services through the Great Salt Lake Municipal Services District (MSD). MSD provides staffing and administrative support and other services and handles planning and zoning, business licensing, code enforcement, inspections, and emergency planning. Public works services are contracted with SLCo Public Works, which provides construction and maintenance of roads, snow removal, and street lighting.

Governing Body

The governing body—Mayor and four council members—is responsible for making policy decisions, adopting ordinances, and overseeing the administration of the town.

Development Trends

The Brighton Neighborhood Nodes Design Plan aims to increase amenities, commercial/recreational vitality, walking facilities, and sustainability in specific areas.

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 3. The results are based on the criteria in Table 4 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 3: Calculated Priority Risk Index Values for the Town of Brighton

Type of Hazard Event	Probability of Future Events	Spatial Extent	Severity of Life/ Property Impact	Warning Time	Duration	Response Capacity	Risk Factor Value
Avalanche	4	1	2	4	2	1	2.6
Drought	4	4	2	1	4	1	2.8
Earthquake	3	4	4	4	3	2	3.4
Extreme Heat	4	4	3	1	3	1	3
Extreme Cold	3	4	2	1	3	1	2.4
Flooding	4	3	3	3	3	1	3.1
Landslide/Slope Failure	2	1	2	4	1	2	2
Radon	4	4	2	1	4	2	2.9
Heavy Rain	4	3	2	3	1	1	2.6
High Wind	4	3	3	3	2	1	3
Lightning	4	2	2	4	1	1	2.6
Severe Winter Weather	4	3	2	2	2	1	2.6
Tornado	2	2	3	4	1	2	2.4
Wildfire	4	3	3	4	3	1	3.2
Dam Failure	2	2	3	2	2	3	2.4
Civil Disturbance	2	1	2	4	2	2	2.1
Cyber Attack	2	3	3	4	3	2	2.7
Hazardous Materials Incident (Transportation & Fixed Facility)	3	1	2	4	1	1	2.2
Public Health Epidemic/ Pandemic	3	4	3	1	4	1	2.8
Terrorism	2	1	3	4	2	1	2.3

Table 4: Criteria for the Calculated Priority Risk Index

Risk Index Factor	Degr Leve	ee of Risk I	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.	
	2	Occasional	1 to 10 percent probability of occurrence in the next year or a recurrence interval of 11 to 100 years.	30%
	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.	
	2	Small	10%–25% of the planning area could be impacted	
	3	Significant	25%–50% of the planning area could be impacted.	10%
	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.	
	2	Limited	More than 5% and 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.	30%
	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 2	Self-defined Self-defined	More than 24 hours 12 to 24 hours.	10%
		Jon-delined	12 to 27 110u13.	<u> </u>

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
	3	Self-defined	6 to 12 hours.	
	4	Self-defined	Less than 6 hours.	
Duration	1	Brief	Up to 6 hours.	
	2	Intermediate	Up to one day.	10%
	3	Extended	Up to one week.	10 70
	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.	
	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.	10%
	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 5 lists the hazard events impacting the town of Brighton planning area since the 2019 plan update, as recorded in the Storm Events Database from the National Centers for Environmental Information.

Table 5: History of Hazard Events in the Town of Brighton²

Type of Hazard Event	FEMA Disaster #	Date(s)	Damage or Impacts	Description
Avalanche	"		A number of avalanches have occurred over the years.	Impacted travel in the canyon if the road is closed. Affected the local economy (if the resort is closed or people cannot get up/down the canyon). Also, concern about planned detonations and the potential effect on those who are in unfamiliar terrain or unaware of planned detonations.
Drought			Concerns about the watershed if there is not enough snowpack to replenish.	
Earthquake	DR- 4548-UT	March 2020	5.7 earthquake near Magna	Magna earthquake had significant impacts in the valley. No damage occurred in Brighton and shake intensity was weak.
Extreme Heat		N/A	N/A	N/A
Extreme Cold		N/A	N/A	N/A
Flooding		2023	Concerns about flooding with the amount of snow melting	Residents stockpiled sandbags and cleaned out creeks to help with water flow.
Landslide/ Slope Failure		August 2021	Debris in road caused closure.	Heavy rain and flash flooding affected the area.
Radon		N/A	N/A	N/A
Heavy Rain		N/A	N/A	N/A
High Wind			High winds can damage powerlines or prevent the lifts from running at resorts.	This has led to injuries and revenue lost at ski resorts. In addition, it might have cascading effects with a potential avalanche.
Lightning		N/A	N/A	N/A
Severe Winter Weather		2023	Death of man from heavy snow/roof collapse.	Roof collapse is a concern if people do not keep up with snow clearing during the winter months. Heavy snow and blizzard conditions are common in Brighton.

² EAP = Emergency Action Plan, ML = local magnitude

Type of Hazard Event	FEMA Disaster #	Date(s)	Damage or Impacts	Description
Tornado		N/A	N/A	N/A
Wildfire		2024	There have been smaller wildfires in the forest nearby.	Road closure impacts.
Dam Failure			Lake Mary- Phoebe Dam and Twin Lakes Dam are in Brighton.	The town is behind on needed improvements due to funding/staffing issues. These are rated high hazard dams. EAPs have to be updated.
Civil Disturbance		2024	Brighton resident threatened a snowboarder who came onto his land.	Charged with third-degree felony aggravated assault
Cyberattack		N/A	N/A	N/A
Hazardous Materials Incident (Transportation & Fixed Facility)		N/A	N/A	N/A
Public Health Epidemic/ Pandemic		2020–2023	COVID-19 pandemic	Affected local businesses and ski resorts in the canyon
Terrorism		N/A	N/A	N/A

National Flood Insurance Program Summary

The town of Brighton participates in the National Flood Insurance Program (NFIP). Table 6 displays statistics related to the NFIP. The town of Brighton does not participate in the Community Rating System.

Table 6: National Flood Insurance Program Status for the Town of Brighton³

Init FHBM Identified	Initial FIRM Identified	Current Effective Map Date	Adopted Date	Date Joined NFIP	Tribal
N/A	12/18/1985	09/25/2009	2009	10/04/2021	No

Table 7: National Flood Insurance Policies for the Town of Brighton

Community ID	Number of Losses	Total Net Payment	Active Policies	Total Coverage
490237	0	\$0	1	\$98,000

³ FIRM = Flood Insurance Rate Map, FHBM = Flood Hazard Boundary Map

The town of Brighton 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 9/14/2021. The current Flood Insurance Rate Map (FIRM) became effective 9/25/2009. The MSD is responsible for issuing floodplain permits in MSD Member Communities, including Brighton. 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 8 provides information on the vulnerable assets in the town of Brighton, including its critical facilities, highlighting the town's vulnerability to identified hazards. It also describes the potential impacts on 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 the safety and functionality of these important assets during hazard events. These data are invaluable for decision-making and prioritizing resources for emergency response and preparedness efforts, ultimately contributing to more effective risk management and greater resilience within the community.

Vulnerable assets include the 353 residents and their homes. Brighton has one fire station. Highway 190/Big Cottonwood Canyon Road provides the primary transportation route in and out of Brighton. In the summer, Guardsman Pass Road provides a transportation link to Summit County to the east. Solitude Mountain Resort and Brighton Resort, along with associated businesses, account for significant economic assets in the town that draw significant numbers of visitors and revenue. The area also offers summer recreation through campgrounds and trails. Natural resources include forests and other vegetation, wildlife, lakes, Big Cottonwood Creek and tributaries, and the general scenery of the Wasatch mountains.

Although this number deviates from the 353 residents reported by the 2020 U.S. Census, the Town of Brighton 2025 Community Wildfire Protection Plan reports the following: 432 full-time residents, 185 full-time housing units, 1,200 part-time residents, and 690 seasonal housing units, 875 homes, 900 buildable lots, and 5 commercial entities.

Table 8: Jurisdiction-Specific Vulnerabilities and Impacts in the Town of Brighton

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
Avalanche	People	Vulnerability: Backcountry outdoor enthusiasts in Brighton are most vulnerable to avalanches. This includes areas around Brighton Resort or in Big and Little Cottonwood Canyons.
		Impacts: Avalanche rescue is resource-heavy and time consuming, and it frequently results in loss of life. Skiers, other outdoor recreationists, ski patrol, and resort staff may be at risk. Residents are

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
		also at risk from roof avalanches, which occur when large slabs of snow slide off steep roofs.
	Structures	Vulnerability: Residences and structures located near steep slopes, especially along Guardsman Pass, Silver Fork, or slopes adjacent to the Brighton Resort are at risk from avalanches.
		Impacts: Structures can be damaged or destroyed by natural and human-caused avalanches.
	Economic Assets	Vulnerability: Brighton's economy depends heavily on tourism, particularly during the winter season. All local businesses are vulnerable.
		Impacts: Avalanche events can temporarily close Brighton Resort, limit road access via SR-190, and disrupt ski rental shops, lodging businesses, and restaurants. Road closures and power outages can reduce visitation, resulting in lost revenue for the local economy.
	Natural, Historic, and	<i>Vulnerability:</i> Vegetation, habitats, scenery, and historic structures are vulnerable to avalanches.
	Cultural Resources	Impacts: Avalanches in Brighton can impact alpine meadows, aspen stands, and conifer forests, resulting in habitat disruption and soil erosion. The area's natural beauty, which is a draw for recreation and photography, may suffer visible scarring after large slides. Although not widely known for historical structures, any older lodges or historic cabins in the area could be at risk if they are located in avalanche-prone terrain without modern structural protections.
	Critical Facilities and	<i>Vulnerability:</i> SR-190, utility systems, and fuel systems are vulnerable to avalanches.
	Infrastructure	Impacts: Brighton's critical infrastructure includes SR-190 (Big Cottonwood Canyon Road), which is the sole access point into and out of the community. This road is frequently closed for avalanche control or recovery operations, which isolates residents and hinders emergency response. Power lines, propane storage, and water systems may also be affected by slides that damage above-ground infrastructure or block maintenance access routes. Brighton's remote location and limited-service infrastructure amplify these vulnerabilities.
	Community Activities	Vulnerability: Avalanche risk affects many aspects of community life in Brighton. Impacts: Winter events, school transportation for children living seasonally in the area, and recreational outings can be delayed or canceled due to high avalanche danger.
Drought	People	Vulnerability: All residents are vulnerable. Impacts: In Brighton, prolonged drought conditions can lead to limited access to clean drinking water, particularly for residents and seasonal visitors who rely on local groundwater wells or small-scale municipal systems.
	Structures	Vulnerability: Drought imposes restrictions on growth. Impacts: Drought indirectly restricts development and infrastructure expansion in Brighton due to limited water supply.
	Economic Assets	Vulnerability: Brighton is renowned for its ski resorts, which rely heavily on consistent snowfall.

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
		Impacts: Drought conditions can lead to reduced snowpack, adversely affecting the ski season's length and quality. Additionally, the diminishing of the Great Salt Lake can reduce lake-effect snowfall, further impacting snow levels. This decline in snowfall can result in decreased tourist visits, affecting revenue for local businesses and employment opportunities within the community. While agriculture is minimal in Brighton itself, regional drought affects food availability and prices, indirectly impacting local businesses.
	Natural, Historic, and Cultural Resources	Vulnerability: Drought places significant stress on Brighton's high- elevation vegetation, including wildflowers, aspens, and subalpine forests. Impacts: This stress weakens ecosystems and increases vulnerability to pests, such as bark beetles, which thrive in dry conditions.
	Critical Facilities and Infrastructure	Vulnerability: Water systems are vulnerable to drought. Brighton has limited public infrastructure, making drought impacts more pronounced. Impacts: Local water systems may face reduced recharge rates, affecting both quantity and quality.
	Community Activities	Vulnerability: Recreation opportunities and household water usage are vulnerable to drought. Impacts: Brighton's recreational spaces such as hiking trails, picnic areas, and campgrounds may suffer from lack of maintenance due to water restrictions or fire closures. Households may face limitations on landscaping, outdoor water use, and recreational water features. These restrictions, though necessary, can affect the community's quality of life and seasonal aesthetics, especially in areas relying on gardens or native landscaping for erosion control and fire mitigation.
Earthquake	People	Vulnerability: Brighton is located within a seismically active region of Utah, and all residents are vulnerable. Impacts: Although Brighton's population is relatively small, specific groups are more vulnerable to earthquake impacts. These include residents living in older cabins or lodges, many of which were constructed before modern seismic building codes. Families with young children, elderly residents, individuals with mobility or sensory impairments, and seasonal workers living in dense or shared accommodations may face challenges evacuating or accessing emergency services. Brighton residents will also be affected if access to the rest of Salt Lake County is limited by earthquake damage to roads or other lifelines. They may be cut off from outside emergency aid.
	Structures	Vulnerability: All structures in Brighton are vulnerable to earthquakes. Many buildings in Brighton, especially historic ski lodges, vacation rentals, and cabins, were built before seismic design standards were adopted statewide. Impacts: Earthquakes can cause slight to extensive damage to structures. Structures made from unreinforced masonry or with shallow foundations are particularly vulnerable. Some buildings are perched on steep or unstable slopes, where ground movement during an earthquake could trigger foundation failure or secondary hazards like landslides. Seasonal structures or those constructed for temporary

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
		use may also lack the bracing or anchoring needed to withstand seismic shaking.
	Economic Assets	Vulnerability: All Brighton businesses and the town economy are vulnerable to earthquakes. Key assets include lodging facilities, restaurants, retail shops, and Brighton Resort.
		Impacts: Brighton's economy relies heavily on tourism and outdoor recreation. An earthquake could severely disrupt these businesses, particularly if access to the area is blocked or buildings are damaged.
	Natural, Historic, and Cultural	Vulnerability: Natural scenery, outdoor recreation amenities, and historic structures are vulnerable to earthquakes. Impacts: While Brighton is primarily a natural destination, landslides or
	Resources	rockfall triggered by earthquakes could alter scenic vistas, hiking trails, and alpine ecosystems. Historic cabins, community gathering spaces, and older ski infrastructure may lack seismic upgrades and be prone to collapse or structural compromise. These facilities represent important cultural and recreational value to the community and their damage would diminish both heritage and identity.
	Critical Facilities and Infrastructure	<i>Vulnerability:</i> Brighton's critical facilities, including emergency access routes, power lines, and water systems, are vulnerable to earthquake-induced disruption.
		Impacts: The community is largely accessed via SR-190 through Big Cottonwood Canyon, which includes steep slopes and rockfall-prone areas that could become impassable after a quake. Any damage to utility systems, especially during winter months, could leave residents and visitors without heat, water, or communication.
	Community Activities	Vulnerability: Community life in Brighton, especially during the winter recreation season, is vulnerable due to public events, ski operations, and gatherings at lodges or resorts. Impacts: Earthquakes that strike during high visitation periods pose a greater risk of casualties due to crowded spaces and limited evacuation infrastructure. Many public spaces and event venues are in older buildings or set against steep terrain, making them especially hazardous during seismic activity.
Extreme Heat	People	Vulnerability: Vulnerable populations during extreme heat include adults over 65, individuals with pre-existing health conditions, and young children, as they struggle to regulate body temperature. Impacts: Extreme heat can cause heat related illnesses such as dehydration, heat exhaustion, and heat stroke. Socioeconomically disadvantaged individuals may lack access to cooling resources, while outdoor workers are at higher risk of heat-related illnesses due to physical labor without adequate hydration and rest.
	Structures	Vulnerability: Residential buildings with inadequate insulation and ventilation and commercial buildings lacking reflective roofing and proper shading may be vulnerable to extreme heat. Materials like metal and glass can amplify heat retention, while areas with limited green space typically experience higher temperatures. Impacts: Structures may retain heat, increasing discomfort or illness for occupants. Increased demand can strain cooling systems and increase costs.

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
	Economic Assets	Vulnerability: Agriculture and outdoor recreation businesses are vulnerable to extreme heat. Impacts: Agricultural operations can have reduced yields and higher water demand due to heat stress. The outdoor recreation industry may see decreased participation during heatwaves, affecting local businesses that rely on visitors. In addition, the energy infrastructure could face strain from increased cooling demands, leading to outages.
	Natural, Historic, and Cultural Resources	Vulnerability: Plants, wildlife, historic buildings, and parks are vulnerable to extreme heat. Impacts: Local plant species and wildlife habitats can suffer from drought conditions, leading to reduced biodiversity. Historic buildings may degrade due to high temperatures, causing materials to deteriorate and paint to peel. In addition, parks and recreational areas may experience overuse and risk their preservation, as residents seek relief from the heat.
	Critical Facilities and Infrastructure	Vulnerability: Transportation, utilities, and healthcare systems are vulnerable to extreme heat. Impacts: Healthcare facilities may experience increased demand because of heat-related medical issues, while schools can suffer from the strain on cooling resources. Transportation systems are at risk of damage, such as buckling roads and warped train tracks. Power grids may be strained by higher demands for electricity for cooling, leading to potential outages.
	Community Activities	Vulnerability: Activities like outdoor sports, fairs, and agricultural practices are vulnerable to extreme heat. Impacts: These events can pose risks, particularly for participants such as youth athletes and elderly residents who may suffer from heat-related illnesses. In addition, high temperatures can stress crops, impacting local farming.
Extreme Cold	People	Vulnerability: Brighton frequently experiences extreme cold due to its high elevation and alpine climate, especially during the peak winter season. All residents are vulnerable. Impacts: Elderly residents, young children, and seasonal workers are particularly vulnerable, especially if they lack access to proper heating, insulated housing, or winter clothing. Visitors unaccustomed to high-altitude cold may underestimate the risk of frostbite or hypothermia while recreating outdoors. Individuals with pre-existing health conditions, such as respiratory or cardiovascular issues, face elevated health risks during prolonged exposure to sub-zero temperatures.
	Structures	Vulnerability: Older structures are vulnerable to extreme cold. Impacts: Many buildings in Brighton, including older cabins, seasonal rentals, and ski lodges, may lack modern insulation or energy-efficient heating systems. Homes with drafty windows, aging furnaces, or unsealed gaps are especially prone to heat loss and frozen pipes. Unheated outbuildings like storage sheds or garages are also susceptible to structural damage from frost. Public infrastructure, such as roads and bridges, may become treacherous due to black ice and snow accumulation, posing hazards to both residents and emergency responders.

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
	Economic Assets	Vulnerability: All businesses in Brighton are vulnerable to extreme cold. Impacts: While Brighton has limited agriculture, transportation networks, utility services, and winter tourism businesses are economically vulnerable to extreme cold. Power outages caused by ice accumulation or equipment failure can disrupt operations at lodges, restaurants, and ski facilities, leading to lost revenue and reduced visitor confidence. Icy roads, especially SR-190 through Big Cottonwood Canyon, can impede supply deliveries, employee commutes, and tourist access. Energy costs spike during extended cold periods, increasing operational expenses for businesses reliant on heating systems.
	Natural, Historic, and Cultural Resources	Vulnerability: Historic structures, cultural sites, local vegetation, and wildlife habitats are vulnerable to extreme cold. Impacts: Historic structures, especially those not built for severe weather, can deteriorate from below-freezing temperatures and ice. Original ski lodges or cabins are at risk if they are not maintained for extreme cold tolerance, potentially leading to foundation damage, ice dams, or roof collapse. Cultural resources, such as memorials or public art installations, may suffer from freeze-related cracking or surface degradation. Local vegetation and wildlife habitats may suffer from plant stress and reduced food availability when faced with prolonged cold.
	Critical Facilities and Infrastructure	Vulnerability: Water and power systems and roads are vulnerable to extreme cold. Impacts: While Brighton lacks major critical facilities, it does rely on a small-scale utility and water system that can be strained during extreme cold events. Frozen pipes, pump failures, and mechanical malfunctions at pump houses or storage tanks can compromise service delivery. Power infrastructure is also vulnerable, and any outage during winter could be life-threatening due to cold exposure. Emergency response capabilities may be delayed if roads become icy or blocked by snow accumulation, compounding public safety concerns.
	Community Activities	Vulnerability: Outdoor events and recreation are vulnerable to extreme cold. Impacts: Brighton's community gatherings, outdoor events, and ski resort activities can be significantly disrupted by extreme cold. When temperatures drop dangerously low, recreational programs and seasonal events may be postponed or canceled, affecting tourism and local morale. Vulnerable groups, such as the elderly, young children, and those without adequate indoor heating, may avoid public spaces entirely. Additionally, community centers or lodges that are poorly insulated or under-heated can become uncomfortable or unsafe for group gatherings.
Flooding (and Heavy Rain)	People	Vulnerability: Flooding primarily affects residents in low-lying areas near rivers and streams, such as Big Cottonwood Creek, especially during heavy rainfall or snowmelt. Impacts: Individuals without reliable transportation may struggle to evacuate quickly, while low-income families often lack resources for

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
		flood-prevention measures. The elderly and those with disabilities may face mobility challenges, increasing their risk during emergencies. Overall, factors such as geographic location, economic status, and physical ability contribute to the community's varying levels of vulnerability to flooding.
	Structures	Vulnerability: Structures in low-lying areas near the Big Cottonwood Creek or other waterways are vulnerable to flooding. Impacts: Residential properties in flood plains and commercial buildings without proper drainage systems or flood-resistant designs face significant risks during heavy rain or snowmelt. Older structures may be more susceptible due to outdated construction standards. Overall, a combination of location and construction features contributes to their vulnerability to flooding.
	Economic Assets	Vulnerability: All businesses and economic activity in flood zones, near waterways, or low-lying areas are vulnerable to flooding. Impacts: Commercial properties, especially retail centers and warehouses near rivers or low-lying areas, are at high risk during heavy rainfall. Residential developments in flood-prone zones also can suffer damage, impacting property values. Public infrastructure, such as roads and utilities, may experience disruptions, leading to costly repairs. Agricultural land can be affected by excess water, reducing crop yields.
	Natural, Historic, and Cultural Resources	Vulnerability: Streams and habitats, as well as cultural sites, are vulnerable to flooding. Impacts: Natural areas like wetlands and streams are at risk of habitat destruction, while historic sites and landmarks may sustain structural damage. Cultural resources, such as parks and public spaces, can become unusable, affecting community events. Factors contributing to their vulnerability include inadequate flood management, urban development that alters water flow, and the increasing frequency of extreme weather events due to climate change.
	Critical Facilities and Infrastructure	Vulnerability: No critical facilities were identified in the Special Flood Hazard Zone in Brighton. Roads and utilities may be vulnerable. Because Brighton has limited facilities, it may be vulnerable to disruptions to facilities and infrastructure in the valley. Impacts: Hospitals, schools, and transportation networks are vulnerable to flooding due to their proximity to rivers and low-lying areas, which can overflow during heavy rain or snowmelt. Flooding can disrupt emergency services, require schools to evacuate, block transportation routes, and isolate communities. In addition, inadequate drainage systems and urban development encroaching on floodplains increase these risks.
	Community Activities	Vulnerability: Outdoor recreation and events are vulnerable to flooding. Impacts: Due to the area's geography and infrastructure, outdoor events, sports, and farmers' markets are vulnerable to flooding. Parks and open spaces can quickly become inundated during heavy rainfall or rapid snowmelt. Residential neighborhoods near rivers, roads, and bridges are at risk of flash floods, which can disrupt transportation and emergency services.

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
Landslide/ Slope Failure	People	Vulnerability: In Brighton, residents living in cabins or homes built along steep slopes, especially in areas like Silver Fork, near Guardsman Pass, or along SR-190, are most vulnerable to landslides and slope failures. The risk is particularly elevated during spring snowmelt and periods of heavy rain, when saturated soils become unstable. Impacts: Residents may be injured or displaced from homes due to landslides. Many properties in Brighton are older or seasonal and may lack modern drainage systems or slope stabilization features.
	Structures	Vulnerability: Homes, commercial buildings, roads, and bridges on or near steep slopes may be vulnerable to landslides because of factors like loose soil or rock geology, heavy rainfall, and poor drainage systems. In addition, inadequate construction practices and a lack of erosion control measures can increase the risk of slope failures, particularly for properties not designed with their environmental context in mind.
		Impacts: Landslide can damage or destroy structures, including homes, businesses, and auxiliary structures like storage sheds. Roads such as SR-190 through Big Cottonwood Canyon may also experience rockslides, roadbed slippage, or debris flows that can damage pavement and reduce safe access to the community.
	Economic Assets	Vulnerability: Brighton's economic well-being depends on tourism infrastructure, including ski resort operations, road access, and power service continuity. Impacts: Landslides can damage access roads, utility lines, and commercial buildings, causing service interruptions and discouraging visitor access. Homes and vacation rentals located on hillsides may also suffer property damage or depreciation if slope stability is questioned. The cost of repairs or slope stabilization measures can be significant for both public and private landowners, posing financial strain on a tourism-dependent economy.
	Natural, Historic, and Cultural Resources	Vulnerability: Natural ecosystems, historic sites, and recreation amenities are vulnerable to landslides and slope failure. Impacts: Slope failures in Brighton can lead to soil erosion, vegetation loss, and sediment runoff into alpine streams, affecting water quality and wildlife habitat in the Wasatch Mountains. Areas near historic mining sites or early settlement cabins may be particularly unstable due to old excavation practices and a lack of modern engineering reinforcement. Community assets such as recreation areas, trailheads, and alpine meadows may be damaged or rendered inaccessible by landslide debris or erosion, threatening both ecological integrity and local heritage.
	Critical Facilities and Infrastructure	Vulnerability: Key infrastructure in Brighton—including water tanks, culverts, utility lines, and the SR-190 access road—is vulnerable to slope instability. Impacts: Erosion or shifting terrain may compromise buried pipes or overhead lines, leading to service outages. Access routes for emergency vehicles may be blocked by debris flows or rockfall, hindering emergency response during storms or post-disaster cleanup.

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
	Community Activities	Vulnerability: Recreational activities such as hiking, skiing, and mountain biking on sloped terrain are directly affected by landslide risk. Impacts: Trails may become unsafe or impassable due to ground instability or debris. Residential areas built along canyon slopes face a heightened risk of slope movement, especially during rapid seasonal changes. Infrastructure projects such as road repair or new construction can also be delayed or jeopardized by unstable soil conditions, limiting progress on critical community improvements.
Radon	People	Vulnerability: In Brighton, homeowners and seasonal residents living in older cabins, lodges, and ski chalets are particularly vulnerable to radon exposure due to aging construction and limited ventilation. Many of these homes are located in areas with granitic bedrock and uranium-rich soils, which are known to emit higher levels of radon gas. According to Utahradon.org, 37% of homes tested in the Brighton area (zip code 84121) have dangerous levels of radon. Impacts: Families with young children, seniors, and individuals with chronic respiratory conditions face elevated health risks, as prolonged exposure to radon is the second leading cause of lung cancer in the United States. Given Brighton's cold alpine climate, homes are often tightly sealed during winter, which can trap radon indoors and increase exposure.
	Structures	Vulnerability: Structures with concrete slabs or basements are particularly vulnerable to radon exposure, as radon can seep in from the soil. Homes in areas with high uranium content are at greater risk, especially in older houses with inadequate ventilation. Impacts: Cracks in floors and walls can allow radon to enter. Seasonal cabins and rentals that remain closed for extended periods may have even higher concentrations due to reduced air circulation.
	Economic Assets	Vulnerability: Radon exposure poses economic risks to homeowners, property investors, and local business owners in Brighton. Impacts: Properties found to have elevated radon levels may experience reduced market value, delays in real estate transactions, or higher insurance and mitigation costs. Commercial buildings such as lodging facilities, retail shops, and short-term rentals can also be impacted, as health concerns or required remediation may deter potential buyers or guests. The tourism-based economy could suffer if radon is perceived as a persistent health issue in indoor accommodations.
	Natural, Historic, and Cultural Resources	Vulnerability: Natural environments, historic structures, and cultural sites are vulnerable to radon exposure. Impacts: Brighton's natural environment, including its granitic mountain soils and shallow groundwater sources, can accumulate and transport radon gas. Historic structures—such as older ski lodges, community buildings, or cabins built from local stone or concrete—are more likely to retain radon indoors due to limited ventilation and construction practices that predate awareness of radon hazards. Cultural sites used for gatherings or seasonal events may face indoor air quality concerns, impacting both preservation efforts and public health

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
	Critical Facilities and Infrastructure	Vulnerability: While Brighton has limited public infrastructure, schools, health clinics, and any future municipal buildings are at risk if built in radon-prone areas without appropriate mitigation. Impacts: Children are especially vulnerable due to their developing lungs and time spent indoors, making schools or daycare spaces a priority for radon testing. Healthcare providers and facilities also must ensure adequate air quality for patients and staff, particularly in lower-level spaces. A lack of regular radon monitoring or public awareness campaigns can leave critical facilities unprotected.
	Community Activities	Vulnerability: Indoor gatherings are vulnerable to radon exposure. Impacts: Community life in Brighton often centers around indoor winter gatherings, such as residential get-togethers, après-ski events, and seasonal functions in lodges or community halls. These activities frequently take place in basements or enclosed lower levels, where radon tends to accumulate. Without proper ventilation or testing, participants may unknowingly face increased exposure.
High Wind	People	Vulnerability: In Brighton, all residents and visitors face increased risk from high wind events due to the community's location in Big Cottonwood Canyon, where wind can be funneled and intensified by the surrounding topography. Impacts: Elderly individuals and those with mobility impairments may struggle to seek shelter quickly on icy or uneven terrain, while children and tourists may underestimate the dangers posed by falling debris or windblown objects. Seasonal workers and outdoor employees, particularly those working at Brighton Resort or on trail maintenance crews, are especially at risk during sudden wind gusts, which can topple equipment and create hazardous working conditions. Wind events may also occur in conjunction with winter storms, compounding risks.
	Structures	Vulnerability: Brighton's structures, including residential cabins, ski lodges, and commercial buildings, are susceptible to damage from strong winds, especially older buildings with flat or low-pitched roofs, aging materials, or large overhangs. Impacts: Structures with extensive windows or exposed signage, such as those at the resort base area, are vulnerable to glass breakage and façade damage. While the area does not contain agricultural facilities, storage sheds, equipment enclosures, and lift shacks may be lightweight and lack reinforcement, making them prone to collapse or debris loss. The lack of natural windbreaks in open areas and ridgelines further increases exposure to wind damage.
	Economic Assets	Vulnerability: Brighton's economy relies heavily on winter tourism, including the operation of Brighton Resort and supporting businesses such as lodging facilities, restaurants, gear rental shops, and transit services. Impacts: High winds can lead to lift closures, temporary business shutdowns, or power outages, causing loss of revenue and service disruptions. Large signs, outdoor seating, and displays are at risk of damage, and older homes may suffer from roofing and siding failures. Windborne debris and falling tree limbs can also damage power

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
		infrastructure and canyon access roads, temporarily isolating the community and disrupting business continuity.
	Natural, Historic, and Cultural Resources	Vulnerability: Brighton's forested alpine environment is vulnerable to high winds, particularly through treefall and wind erosion. Impacts: Uprooted trees can block trails, damage property, and disrupt habitats. Historic ski cabins and early recreational structures, which may not have been retrofitted for severe weather, are susceptible to structural failure.
	Critical Facilities and Infrastructure	Vulnerability: Brighton's critical infrastructure is relatively limited, but it includes utility lines, propane tanks, water supply systems, and SR-190, the sole road providing year-round access. Impacts: High winds can topple power lines or trees, causing outages and blocking evacuation routes. Communication systems used by emergency responders and ski patrols may also be affected by damaged antennas or lines. Residential and commercial buildings without wind-resistant features or modern design standards may experience structural damage, further complicating response and recovery during severe wind events.
	Community Activities	Vulnerability: Brighton's outdoor-focused community life is especially vulnerable to disruption during high wind events. Impacts: Wind can force ski lift shutdowns, trail closures, or cancellation of outdoor events, impacting community engagement and visitor experience. Tents, signs, and temporary structures used for special events are particularly prone to being overturned or damaged.
Lightning	People	Vulnerability: Brighton's location in the Wasatch Mountains and its strong focus on outdoor recreation make lightning a notable hazard, particularly during summer thunderstorms. All residents and visitors are vulnerable. Impacts: Hikers, mountain bikers, and backcountry skiers on exposed ridgelines or alpine meadows are especially at risk when storms move in quickly. Visitors and locals participating in outdoor activities around Brighton Resort or in the adjacent Uinta-Wasatch-Cache National Forest may struggle to find immediate shelter in remote terrain.
	Structures	Vulnerability: In Brighton, ski lifts, chair towers, communications antennas, and mountaintop infrastructure are particularly vulnerable to lightning strikes due to their elevation and metal components. Lodges, cabins, and other residential structures located near tall pine and fir trees are also at risk, as lightning can strike a tree and transfer energy to the nearby building. Impacts: Structures without proper grounding systems or surge protection, especially older buildings or seasonal homes, are more likely to suffer electrical or fire-related damage from a strike.
	Economic Assets	Vulnerability: Brighton's economic engine is its year-round outdoor recreation and tourism, making outdoor venues, resort infrastructure, and electrical systems highly susceptible to lightning-related disruptions. Impacts: Power lines and lift systems may experience outages or surges, halting ski operations and affecting hospitality services. Communications towers used for emergency response and ski patrol

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
		are also exposed, with damage potentially disrupting coordination during peak tourism periods. Trail closures or safety evacuations due to lightning can lead to lost visitor revenue and additional operational costs for the resort and nearby businesses.
	Natural, Historic, and Cultural Resources	Vulnerability: The forests surrounding Brighton contain many tall, mature trees that can attract lightning strikes. Impacts: These events can ignite wildfires during dry summer conditions or damage natural trails and ecosystems. Brighton's older ski lodges or historic cabins, particularly those constructed with flammable wood and lacking lightning protection, are vulnerable to ignition or structural damage.
	Critical Facilities and Infrastructure	Vulnerability: Though limited, Brighton's critical infrastructure includes ski lift control centers, utility substations, communications towers, and the SR-190 canyon access road. Impacts: Lightning strikes can disrupt power and communication, particularly during busy winter or summer seasons when visitor safety depends on real-time coordination.
	Community Activities	Vulnerability: Outdoor events and recreation in Brighton are highly susceptible to lightning risk. Impacts: Community and resort-hosted events in Brighton, such as outdoor festivals, concerts, and recreational competitions, are highly susceptible to lightning risk due to their exposed, high-elevation settings. These events often occur in areas with minimal shelter options, such as mountaintop lodges, trailheads, or picnic zones. Water-related recreation in nearby areas, such as Silver Lake or streamside trails, increases risk due to water's conductivity.
Severe Winter Weather	People	Vulnerability: Brighton experiences long, intense winters marked by heavy snowfall, freezing temperatures, and blizzard conditions, all of which pose risks to all residents and visitors. Impacts: Elderly individuals and those with mobility limitations may struggle to navigate snow-covered terrain or safely access medical care. Young children and tourists unfamiliar with mountain conditions may underestimate cold-related hazards like frostbite or whiteout disorientation. People with disabilities or chronic health conditions may be more affected if caregivers or essential services are delayed due to impassable roads.
	Structures	Vulnerability: Brighton's older ski lodges, vacation rentals, and residential cabins can be especially vulnerable during severe winter weather. Impacts: Flat or low-pitched roofs are prone to dangerous snow accumulation and ice dam formation, which can lead to roof collapse or water intrusion.
	Economic Assets	Vulnerability: Severe winter weather significantly impacts Brighton's tourism-driven economy, which depends on resort operations, hospitality, and transportation. Impacts: While snow attracts visitors, excessive snowfall or blizzard conditions can shut down lifts, delay travel, and deter tourists, leading to revenue loss. Retail and food service businesses may experience

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
		disruptions in supply chains, while staff shortages can occur if employees are snowed in.
	Natural, Historic, and Cultural Resources	Vulnerability: Vegetation and habitat, as well as historic and cultural sites, are vulnerable to severe winter weather. Impacts: Brighton's forested slopes and alpine habitats are susceptible to treefall, branch breakage, and habitat disturbance under heavy snow. Historic ski lodges and early recreational structures, often constructed with wood, may suffer roof or foundation damage from persistent snow loads. Cultural resources, including outdoor gathering spaces, trailheads, and memorials, may become inaccessible due to deep snow or icy conditions, limiting use during winter events and holidays.
	Critical Facilities and Infrastructure	Vulnerability: Brighton's critical infrastructure, including roads and utilities, is particularly sensitive to severe winter weather due to its remote mountain setting and single access route (SR-190). Impacts: Heavy snow and icy conditions can block or slow emergency response, supply deliveries, and evacuation routes. Utility infrastructure, including overhead power lines and water systems, may experience outages or freeze damage, especially in older systems.
	Community Activities	Vulnerability: Recreation and sport events in Brighton are vulnerable to severe winter weather disruptions. Impacts: Community life in Brighton, including ski competitions, winter festivals, and resort-hosted events, is closely tied to outdoor environments and is highly vulnerable to severe weather disruptions. Whiteout conditions, road closures, or avalanche risk can result in event cancellations, low attendance, or dangerous travel conditions.
Tornado	People	Vulnerability: While tornadoes are extremely rare in Brighton due to its high elevation and mountainous terrain, residents and visitors are still vulnerable to high wind events or rotational storm activity in nearby valleys that may produce localized damaging winds or downbursts. Impacts: Individuals with limited mobility, such as the elderly or people with disabilities, may struggle to find shelter quickly, especially in homes without basements or safe rooms. Families with young children or seasonal visitors unfamiliar with local emergency procedures may be unprepared during fast-moving storm conditions.
	Structures	Vulnerability: Brighton's cabins, ski lodges, lift buildings, and commercial structures are not typically designed for tornado-force winds. Impacts: Single-story homes and buildings with broad roof spans or flat designs are more vulnerable to uplift and structural damage from wind shear. Older, unreinforced buildings or those not built to current code standards may be at increased risk during intense wind events, especially in open or exposed ridge locations.
	Economic Assets	Vulnerability: Brighton's economy relies heavily on recreation and tourism infrastructure, including lodging, ski operations, and seasonal services. Impacts: Though a direct tornado strike is unlikely, a high wind event or nearby tornadic activity could damage power lines, roads, or resort buildings, resulting in temporary closures and loss of revenue. Lift

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts				
		systems, communications equipment, and signs are all exposed assets that could be disrupted, while delays in road access (via SR-190) can affect business continuity.				
	Natural, Historic, and Cultural Resources	Vulnerability: Natural vegetation, and historic and cultural sites are vulnerable to severe storm activity. Impacts: The forested slopes and alpine meadows of Brighton could suffer tree damage or debris fallout from severe storm activity, even without a tornado touchdown. Historic ski cabins or older wood-framed structures are at risk due to their age and construction materials, which are often not engineered to withstand extreme wind forces. Outdoor cultural resources, such as community gathering areas, monuments, or interpretive signage, could be damaged by falling trees or flying debris during high wind events.				
	Critical Facilities and Infrastructure	Vulnerability: Brighton's critical infrastructure is limited but includes power lines, utility sheds, propane storage tanks, and the canyon access road. Impacts: A tornado or strong convective windstorm in the canyon could block roads with fallen trees or rockfall, delaying emergency response or evacuation. Communications towers and lift operations could be damaged by wind, disrupting both emergency coordination and resort activity. Emergency shelters are not widely available in Brighton, and many buildings lack designated safe rooms or storm-resilient areas, increasing vulnerability for both visitors and residents.				
	Community Activities	Vulnerability: Recreation and events in Brighton are vulnerable to severe wind or tornadic activity. Impacts: Brighton's seasonal events, outdoor recreation programs, and resort-based gatherings are held primarily in open, exposed environments, making them vulnerable to any severe wind or tornadic activity. Tents, pop-up structures, and open-air gathering spaces provide little protection, and the rapidly changing mountain weather can make it difficult to implement safety protocols in time.				
Wildfire	People	Vulnerability: All residents of Brighton are vulnerable to wildfire. Impacts: Residents near the wildland—urban interface (WUI), individuals with physical disabilities or health issues who may struggle to evacuate, and low-income families lacking resources for fire safety measures may be vulnerable. Older adults might have reduced mobility, making them more dependent on others for assistance. Wildfire smoke and poor air quality can cause respiratory difficulty.				
	Structures	Vulnerability: Residential homes, especially those made of wood or located in heavily vegetated areas, may be vulnerable. Properties near the WUI are at higher risk due to surrounding flammable vegetation. Inadequate defensible space, such as insufficient clearing of dry grass and shrubs, increases susceptibility. Roofs made of combustible materials and buildings that lack fire-resistant features are particularly at risk during wildfire events. Impacts: Property loss can occur during wildfire events. Residences, commercial structures, as well as facilities and equipment at the ski resorts, are also at risk of damage from wildfire.				

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts			
	Economic Assets	Vulnerability: Much of Brighton has moderate to high wildfire risk, and all structures are vulnerable. Impacts: Residential properties near wildland areas are at high risk, especially if they lack defensible space and fire-resistant landscaping. Commercial assets, such as retail centers close to forested regions, can suffer damage from flames and smoke, affecting the local economy. The ski resorts could experience economic losses if structures or equipment are damaged by wildfire. Summer recreation businesses in the resort areas also could be negatively impacted by wildfire, wildfire smoke, and related closures in the area. Agricultural lands also are susceptible, as wildfires can destroy crops and livestock, leading to financial losses. Vital infrastructure, such as power lines and water pipelines, can be disrupted, causing further economic repercussions. These vulnerabilities are heightened by dry conditions and high winds, which can facilitate the spread of fires.			
	Natural, Historic, and Cultural Resources	Vulnerability: Vegetation, wildlife, and historic sites are vulnerable to wildfire. Impacts: Natural resources like forests and grasslands are at risk because dry vegetation and accumulated brush can easily ignite. Historic sites made of wood and cultural landmarks also can be affected, particularly when located near wildland areas. The increasing frequency of drought and extreme heat, exacerbated by climate change, heightens these vulnerabilities. In addition, urban development encroaching on wildland areas increases the risk to these essential resources.			
	Critical Facilities and Infrastructure	Vulnerability: Power and gas infrastructure, and emergency response services are vulnerable to wildfire. Impacts: One fire station in Brighton may be vulnerable to fire damage. If undamaged, its resources could be quickly overwhelmed. Brighton is removed from other critical facilities such as schools, hospitals, and emergency services buildings which may also be vulnerable. Utilities like power lines and gas pipelines also are at risk, as sparks or falling trees can ignite fires. Residential neighborhoods adjacent to natural landscapes are particularly susceptible to embers, making them vulnerable during dry conditions and high winds. Limited routes to and from Brighton may create challenges to provide response resources to the town or to facilitate an evacuation.			
	Community Activities	Vulnerability: Outdoor events and recreation are vulnerable to wildfire. Impacts: Outdoor events like festivals and sports, especially during hot, windy conditions may experience risk. Recreational activities, such as hiking and camping near wooded areas, also pose risks from open flames or sparks. In addition, landscaping with dry grasses and shrubs increases susceptibility during fire season, putting local infrastructure, such as schools and neighborhoods, at risk.			
Dam Failure	People	Vulnerability: While Brighton itself is located at a higher elevation, there are small reservoirs and water retention systems upstream and within the broader Big Cottonwood Canyon watershed that pose damrelated risks. Dam inundation boundaries from Twin Lakes and Lake Mary-Phoebe pose high risk to Brighton.			

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
		Impacts: In the event of a localized dam or retention structure failure, residents and visitors in lower-lying areas of the canyon, particularly near stream channels such as Big Cottonwood Creek, could be vulnerable to rapid-onset flooding. The dams uphill from Brighton are rated as high hazard, indicating they have the potential to result in loss of life from a failure.
	Structures	Vulnerability: Cabins, vacation homes, and resort buildings situated near natural drainages or creek-adjacent areas may be at risk from sudden flooding caused by dam failure. Impacts: Structures can experience severe damage from rapid-onset flooding following a dam failure. Bridges along SR-190, culverts, and resort infrastructure near stream crossings could suffer structural failure or erosion. Although Brighton has no large hospitals or schools, its emergency and operational facilities, such as ski patrol buildings or maintenance centers, could be impacted depending on the location and extent of the flood path.
	Economic Assets	Vulnerability: Brighton's recreation-based economy depends on reliable access and infrastructure, which could be affected by the vulnerability of the dams in the surrounding area. Impacts: A dam failure in the canyon could damage SR-190, cutting off the only access route to the community, thereby disrupting resort operations, lodging services, and deliveries. Power and communication lines running along the canyon could be washed out, compounding disruptions. Though Brighton doesn't have agriculture, resort assets and snowmaking systems could be affected if water intake systems are damaged or silted in. Property damage from fast-moving floodwaters could result in substantial economic losses for homeowners, businesses, and public agencies.
	Natural, Historic, and Cultural Resources	Vulnerability: Forests, streams, historic structures, and cultural amenities are vulnerable to dam failure. Impacts: A dam failure could significantly impact Brighton's forested landscape and alpine stream systems, causing erosion, sedimentation, and habitat destruction in the Big Cottonwood Creek corridor. Historic structures, including older ski lodges or cabins near the canyon floor, may not withstand floodwater and could suffer structural damage or loss. Parks, trailheads, and community use areas could be rendered unusable or inaccessible, especially those near water features.
	Critical Facilities and Infrastructure	Vulnerability: Brighton's critical infrastructure—including SR-190, power lines, water systems, and emergency response stations—are vulnerable to dam failure. Impacts: Facilities and infrastructure could be compromised in a dam failure scenario. Downstream flooding could damage culverts, bridges, and roadbeds, isolating the community and delaying emergency response.
	Community Activities	Vulnerability: Recreation and events are vulnerable to dam failure. Impacts: Recreational activities, such as fishing, hiking, or snowshoeing along creeks and near reservoir areas, could be at risk during or following a dam breach. Community events or resort programming held near the canyon floor or along streambeds may be

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts			
		canceled or disrupted due to safety concerns. Emergency evacuations during a breach would be difficult, especially with only one road in and out of Brighton.			
Civil Disturbance	People	Low-income individuals may lack the resources for safety, while the elderly or disabled may struggle to navigate emergencies. Young people, particularly teenagers, may be drawn into unrest, influenced by social dynamics. In addition, marginalized individuals may feel targeted or compelled to participate. A lack of community cohesion and trust in authorities can further heighten tensions.			
	Structures	Government buildings, commercial properties, and infrastructure, such as bridges and transportation hubs may be vulnerable. Government buildings may be targeted for their symbolic authority, while retail stores can attract crowds during protests. Residential neighborhoods also can be affected, especially in areas with heightened tensions. The vulnerability of these structures stems from their visibility and importance to the community, combined with factors such as location and ongoing social issues.			
	Economic Assets	Retail establishments, especially shopping centers, are at risk as they often become focal points for protests. Transportation systems can be disrupted by blockades, hindering access to services. Financial institutions may face vandalism or theft, while critical service providers, such as hospitals, could experience strain during unrest. Several economic assets are vulnerable to civil disturbances, primarily due to their visibility and reliance on foot traffic.			
	Natural, Historic, and Cultural Resources	Parks and open spaces may suffer from vandalism or destruction during uncontrolled events. Historic sites can become targets, as they symbolize authority or cultural significance. Cultural resources such as community centers and places of worship may also be affected, as they play a vital role in community identity. Their vulnerability lies in the potential for damage during protests.			
	Critical Facilities and Infrastructure	Governmental buildings, schools, and healthcare facilities may be at risk, since they often symbolize authority and serve as community hubs, making them targets during unrest. Utility infrastructure, such as water and power facilities, is also at risk of disruption. Its visibility and essential services contribute to its vulnerability during civil disturbances.			
	Community Activities	Public demonstrations, parades, and local government meetings are particularly vulnerable to civil disturbances. These events often attract large crowds and can become tense, especially around contentious social or political issues. Factors such as the local demographic, economic conditions, and recent events can heighten these vulnerabilities, making it easier for conflicts to arise during passionate public gatherings.			
Cyberattack	People	Older adults often lack familiarity with technology and online security, making them easy targets for phishing scams. Individuals engaging in online banking or shopping without strong security measures also face heightened risks. Families with children may be less vigilant about internet safety, allowing cybercriminals to exploit personal information. In addition, small business owners without robust cybersecurity practices are prime targets for attacks that can disrupt operations.			

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
	Structures	Critical infrastructure, such as power plants, water treatment facilities, and transportation systems, often lack robust cybersecurity measures. Commercial businesses, especially financial institutions and healthcare providers, also are at risk due to weaker data protection and employee training. Educational institutions may be vulnerable because of limited funding for cybersecurity and outdated software. Obsolete technology and insufficient training enhance the susceptibility of these structures to cyber threats.
	Economic Assets	Financial institutions, such as banks and credit unions, are at risk of data theft and service disruption. Small and medium-sized businesses often lack robust cybersecurity measures, making them attractive targets. In addition, local government agencies and critical infrastructure, such as water treatment facilities, might have outdated security protocols, posing threats to public safety. The rise of remote work further exacerbates vulnerabilities, as employees accessing networks from home can unintentionally expose systems to risks. Overall, the combination of outdated technology and insufficient cybersecurity practices increases the vulnerability of an area's economic assets.
	Natural, Historic, and Cultural Resources	Natural resources like water management systems and wildlife databases can be compromised, disrupting ecosystems. Historic sites and museums that digitize collections are at risk of losing valuable artifacts and data. In addition, cultural organizations managing events may face threats if their systems lack adequate security. The limited resources of smaller organizations further increase this vulnerability
	Critical Facilities and Infrastructure	Energy and utility services, such as electricity and water systems, which often rely on outdated technology, may be vulnerable. Transportation infrastructure, such as traffic management and public transit, is also at risk due to networked systems. Healthcare facilities that use electronic records and connected medical devices face vulnerabilities that can compromise patient safety.
	Community Activities	Online registration for events, local government services, and educational programs that rely on digital tools may be targeted due to inadequate security measures, outdated software, and insufficient staff training.
Hazardous Materials Incident (Transporta- tion & Fixed Facility)	People	Individuals with pre-existing health conditions, such as respiratory issues, and the elderly are at higher risk due to their compromised health. Children also are more susceptible. Those living near industrial areas or transport routes for hazardous materials face increased exposure risk, while low-income families may lack resources and information to effectively prepare for incidents.
	Structures	Industrial facilities, such as manufacturing plants and warehouses, often store hazardous chemicals which may leak. Residential buildings, schools, and hospitals also are at risk, particularly if located along transportation routes for hazardous materials. Older buildings may lack modern safety features, increasing their vulnerability.

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
	Economic Assets	Industrial facilities, transportation infrastructure, and nearby commercial properties may be affected. Industrial facilities handling chemicals are at risk of spills or leaks, while roads and railways used for transporting hazardous materials can lead to accidents and contamination. In addition, nearby commercial and residential areas face potential health risks and economic losses.
	Natural, Historic, and Cultural Resources	Waterways and habitats are vulnerable to hazardous materials incidents, which can disrupt ecosystems. Historic sites and structures may suffer damage from toxic exposure, leading to degradation over time. In addition, cultural landmarks risk losing their significance due to contamination events. The proximity of these resources to industrial areas or transport routes exacerbates their risk.
	Critical Facilities and Infrastructure	Chemical manufacturing plants, waste treatment facilities, and transportation networks, such as highways and railroads may be at risk. Their vulnerability stems from factors such as proximity to residential areas, aging infrastructure, and inadequate safety measures. Natural hazards, such as flooding and earthquakes, can further increase risks by damaging containment systems.
	Community Activities	Local markets, school events, and outdoor gatherings are vulnerable to hazardous materials incidents if they are near industrial zones and transport corridors. This risk is heightened by inadequate emergency preparedness, lack of public awareness, and the potential for spills during transport. Large crowds at events can complicate evacuation efforts, increasing the risks for participants and nearby residents.
Public Health Epidemic/ Pandemic	People	Individuals with pre-existing health conditions like asthma and heart disease and adults over 65 may be vulnerable. Low-income families may struggle to access healthcare and vaccinations, increasing their risk. Marginalized communities with limited access to information and those living in high-density conditions also are at greater risk due to the rapid spread of diseases and the challenges in implementing preventive measures.
	Structures	Several structures are vulnerable to public health epidemics or pandemics, particularly due to their ability to facilitate the spread of disease. High-density residential areas, such as apartment complexes, are at risk, as close living quarters can lead to faster transmission. Public gathering spaces, such as schools and community centers, also pose significant threats because large groups are in confined spaces. Healthcare facilities can become hotspots for infections if infection control measures are insufficient. In addition, workplaces with high foot traffic, such as retail stores, contribute to vulnerability.
	Economic Assets	Small businesses in retail, hospitality, and food service are particularly vulnerable to public health epidemics or pandemics. These sectors face risks from fluctuating consumer demand and potential operational restrictions. The tourism industry also is affected, as travelers may avoid high-risk areas. Healthcare facilities can become overwhelmed, straining resources and impacting operations. In addition, local supply chains may experience disruptions, leading to shortages and inflation. Overall, the direct effects of illness, along with prolonged shutdowns and consumer hesitance, leave these economic assets exposed to significant downturns.

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts
	Natural, Historic, and Cultural Resources	Natural resources like wildlife and ecosystems can be disrupted by increased human activity, raising the risk of zoonotic diseases. Historic sites may deteriorate due to reduced visitor access and funding, while cultural resources, such as community events, face cancelations, impacting social connections.
	Critical Facilities and Infrastructure	Public health epidemic or pandemic incidents can affect healthcare facilities, nursing homes, public transportation systems, schools, and food supply chains. Hospitals and clinics may become overwhelmed with patients, while vulnerable populations in nursing homes are at higher risk. Public transportation can facilitate the spread of disease, and schools gather large groups, thereby increasing transmission potential. These facilities often lack adequate resources, including medical supplies and testing capabilities, making them more susceptible to the impacts of a health crisis.
	Community Activities	Large gatherings like festivals and sporting events can facilitate the rapid spread of diseases due to close contact. Public transportation also is at risk, as it serves many people in confined spaces. Schools and childcare facilities are particularly susceptible, given that children can easily transmit infections. In addition, food-related events, such as farmers' markets, can pose risks if hygiene practices are not followed. The interconnectedness of community members and varying adherence to health guidelines further exacerbate these vulnerabilities.
Terrorism	People	Young children and newcomers may lack awareness of potential threats, while the elderly and individuals with disabilities may struggle to respond quickly in emergencies. Marginalized communities often face bias, making them more susceptible to targeting. In addition, those with lower socioeconomic status may lack access to security measures and emergency preparedness resources.
	Structures	Government buildings, transportation hubs, commercial centers, and public spaces are particularly vulnerable to terrorism incidents. Government buildings are symbolic targets, while transportation hubs and commercial centers are attractive due to their potential for high casualties and crowd presence. Public spaces also are at risk due to their open nature and lack of security. Their vulnerability is heightened by inadequate security measures, high occupancy rates, and their locations in densely populated areas, which can amplify the impact of incidents.
	Economic Assets	Infrastructure, commercial establishments, and community facilities may be vulnerable. Critical infrastructure, such as transportation networks and power grids, could disrupt the economy if targeted. Commercial establishments, especially those with high foot traffic, and community facilities like schools and hospitals also are at risk, as they can provoke widespread concern and disruption. Their accessibility and interconnectivity increase vulnerability, meaning that damage to one asset can have a broader economic impact and hinder recovery efforts.

Hazard	Vulnerable Assets	Description of Vulnerability and Impacts		
	Natural, Historic, and Cultural Resources	Natural resources like water supplies and parks could be targeted for their significance to the community. Historic sites and cultural resources, such as museums or community centers, also are at risk due to their accessibility and importance to local identity. Their vulnerability is often heightened by inadequate security measures.		
	Critical Facilities and Infrastructure	Public transportation systems, healthcare facilities, schools, and utility services like water and power plants may be affected. Their vulnerability arises from high accessibility and the potential impact of an attack, as crowded transportation and public spaces can lead to mass casualties and panic. Attacking utility services could disrupt the town's essential functions, creating chaos.		
	Community Activities	Festivals, parades, and sporting events are particularly vulnerable to terrorism incidents. These events attract large crowds, making it easier for perpetrators to inflict harm and instill fear. In addition, community centers and places of worship serve as social hubs, increasing their risk. Factors such as limited security measures and open access to public spaces contribute to this vulnerability.		

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 town of Brighton to develop a resilient community and minimize the impacts of hazards. Table 9 displays the changes within the town and the related effects on each hazard to the town of Brighton.

Table 9: Jurisdiction-Specific Changes in Vulnerability in the Town of Brighton

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	Avalanches pose a direct threat to outdoor enthusiasts, leading to injuries or fatalities. Property damage can occur at ski resorts and along transportation routes, disrupting emergency response and logistics. The local economy may suffer, especially businesses reliant on winter tourism, and there can be a psychological toll on the community, along with increased insurance costs.	Higher temperatures can lead to more rain, destabilizing snowpack and increasing the risk of wet avalanches. In addition, changes in snowfall can cause denser snow layering on slopes, making them more prone to sliding.	Avalanches can influence population patterns by deterring people from moving to or remaining in high-risk areas, leading to decreased density in these locations. The threat of avalanches prompts many to seek safer environments in urban or lower-risk regions. In addition, when avalanches occur, they can disrupt infrastructure, causing residents to relocate.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Decreased
Drought	Drought can cause water scarcity, impacting agriculture and reducing crop yields. Recreational activities may decline, harming tourism, while the risk of wildfires increases, threatening safety and property. In addition, lower water levels can lead to water quality issues and public health concerns.	Climate change affects drought incidents by altering precipitation patterns and increasing temperatures. Warmer weather can lead to longer dry periods and more severe droughts, while changes in rainfall can reduce snowpack in nearby mountains, crucial for summer water supply. Higher temperatures also increase evaporation rates, further straining local water resources.	Drought can significantly influence population patterns by impacting economic opportunities and the quality of life. Water scarcity often leads to reduced agricultural productivity, prompting residents to migrate to areas with more stable job prospects. Increased water costs can make living less affordable, driving some residents away. Conversely, efforts to address	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
			drought, such as sustainable development or improved water management, may attract newcomers, changing the community's demographic composition over time.		
Earthquake	The potential impacts of earthquakes can be substantial. Immediate damage to infrastructure may disrupt essential services such as water, electricity, and transportation, complicating recovery efforts. Homes and businesses might sustain significant structural damage, posing safety risks. In addition, psychological effects, such as increased anxiety, can affect the community. Economically, repairs can lead to high costs, potential declines in property values, and disruptions to local businesses, ultimately impacting job availability and the overall economy.	Rising temperatures can lead to glacial melting, which affects pressure on tectonic plates and may trigger seismic activity through isostatic rebound. In addition, increased rainfall and flooding can erode soils, weakening structural integrity and heightening vulnerability during earthquakes. Although the direct links between climate change and earthquakes are still under investigation, the environmental effects may impact the region's seismic risk.	Earthquakes can significantly alter population patterns by prompting residents to leave for safer areas after a seismic event. This migration can lead to changes in population density and attract new residents and businesses during the rebuilding process. The perception of the area as a safe place to live may shift, impacting long-term demographics, as some residents return to rebuild while others relocate permanently.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Stayed the same

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
Extreme Heat	Extreme heat can significantly affect public health, increasing the risk of heat-related illnesses, especially among vulnerable populations. It also strains energy resources due to higher demand for air-conditioning, potentially leading to power outages. In addition, extreme temperatures worsen air quality by raising ozone levels, which poses respiratory risks. Urban infrastructure also may suffer damage, leading to increased maintenance costs and safety concerns.	Climate change significantly impacts extreme heat by increasing the frequency and intensity of heatwaves. Rising global temperatures lead to longer and hotter summers, affecting residents and local infrastructure while heightening health risks, especially for vulnerable populations. Urban heat islands resulting from reduced vegetation and extensive pavement further amplify these effects.	By causing residents to relocate due to damaged homes or safety concerns. Some may move to areas perceived as safer or seek better job opportunities elsewhere. The economic impact and infrastructure damage can also make certain neighborhoods less desirable, leading to shifts in demographics and the socioeconomic landscape as new residents with different backgrounds move in.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased
Extreme Cold	Extreme cold can lead to health risks, such as frostbite and hypothermia, especially among vulnerable populations. Transportation may be disrupted due to icy conditions, affecting commutes and emergency services. Infrastructure is at risk, with water pipes potentially freezing and bursting, resulting in costly repairs. In addition, energy demands surge as residents rely on heating, straining the	By increasing the intensity of winter storms. Warmer atmospheric temperatures allow for more moisture, resulting in heavier snowfall and potentially lower temperatures during these events. In addition, fluctuations in weather patterns may disrupt seasonal cycles, leading to unpredictable periods of extreme cold mixed with warmer spells.	By driving some residents to relocate to warmer areas. Harsh winters can hinder economic activities and deter new residents and businesses, influencing housing demand and the attractiveness of certain neighborhoods. This may disproportionately affect lower-income families, leading to changes in demographics and socioeconomic	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
	electrical grid and increasing utility costs. Cold temperatures can also impact local agriculture and wildlife.		stratification in the community.		
Flooding	Damaging infrastructure, such as roads and utilities, disrupts transportation and essential services. Homes and businesses may experience costly water damage, causing potential displacement. Environmental effects include erosion and contamination of local waterways, impacting wildlife and recreation. Economically, flooding can result in lost income for businesses, increased insurance costs, and declining property values. Public health also may be compromised due to waterborne diseases and stress-related issues.	Higher temperatures increase the frequency and intensity of extreme weather events and alter precipitation patterns. They lead to more intense rainstorms and accelerated snowmelt from nearby mountains, raising water levels in rivers and streams. This combination raises the risk of flooding, especially in areas with inadequate drainage and urban development in flood-prone zones, heightening the potential for damage to homes and infrastructure.	Flooding can significantly alter population patterns by displacing residents from affected areas, leading them to seek shelter elsewhere. This may result in a population decline where flooding occurs, as individuals might hesitate to return due to ongoing risks or property damage. As neighborhoods become less desirable, people may migrate to safer areas, changing demographic trends and putting pressure on housing in those regions. Over time, these shifts can influence urban planning and development, as local governments address both flooding risks and changing population needs.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Decreased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
Landslide/ Slope Failure	The town's steep terrain is vulnerable, especially during heavy rainfall or rapid snowmelt. Properties on slopes may suffer damage, resulting in displacement and economic losses. Transportation networks can be disrupted, complicating emergency responses. In addition, landslides can harm local ecosystems by displacing vegetation.	Climate change increases the risk of landslides through heavier rainfall and temperature fluctuations. Intense rain saturates soil, destabilizing slopes, while freeze—thaw cycles weaken the ground. Changes in vegetation can also reduce stability, leading to a higher potential for landslides.	Landslides and slope failures can impact population patterns by making some areas unsafe, leading to displacement and lower property values. This prompts residents to move to safer regions, thereby increasing density in more stable areas. Concerns about future landslides may also deter newcomers from high-risk zones, shaping long-term demographic trends.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased
Radon	Radon poses significant health risks, particularly lung cancer, as it can enter homes through foundation cracks. Many residents may not test for radon, making them unaware of dangerous levels. Increased awareness and public health initiatives are vital for protection, especially with regard to population growth. Incorporating radonresistant construction in new developments also is essential for safety.	Climate change can affect radon levels by altering soil temperatures and moisture conditions. Higher temperatures may increase radon emissions from the ground, while heavy rainfall can change groundwater and soil saturation, impacting radon migration into buildings.	Radon exposure can influence population patterns as increased health awareness may drive families to move away from areas with high radon levels. This shift could particularly affect vulnerable groups, changing demographics and demand in the housing market. Homes with lower radon levels may become more sought after, and public health campaigns can encourage community action, making	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Decreased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
			previously undesirable areas more attractive once mitigation measures are implemented.		
Heavy Rain	Heavy rain can cause flash floods, particularly in low-lying areas, disrupting traffic and emergency services. It may also lead to soil erosion, infrastructure damage, and increased landslide risk in hilly regions. In addition, heavy rainfall can overwhelm waterways, resulting in water quality issues from runoff and impacting public safety, local businesses, and agriculture.	Climate change increases the frequency and intensity of heavy rain, as higher temperatures allow the atmosphere to hold more moisture. This leads to stronger storms, flash flooding, and overwhelmed drainage systems.	Heavy rain can shift population patterns by pushing residents out of flood-prone areas and attracting them to safer neighborhoods. Frequent flooding may lead to evacuations and economic disruptions, prompting relocations. Over time, ongoing heavy rains can affect housing demand and community stability, altering the town's population distribution.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased
High Wind	High winds can cause property damage to roofs and windows, topple trees and power lines, and lead to power outages. They pose hazards for pedestrians and drivers and can worsen air quality by stirring up dust and pollutants, affecting residents' health.	Climate change affects high winds by altering atmospheric patterns and increasing extreme weather events. Rising temperatures may lead to more substantial, unpredictable winds and more frequent thunderstorms, posing risks to infrastructure and air quality.	High winds can alter population patterns by making certain areas less desirable. Frequent damage may drive residents to safer neighborhoods, deter newcomers, and slow growth in affected regions.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased
Lightning	Lightning can have several impacts, primarily posing	Climate change increases temperatures	Lightning can influence population patterns by	There have been minimal changes in land	Increased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
	risks to public safety with the potential for injuries or fatalities. It can spark wildfires in nearby areas, threatening property and the environment. In addition, lightning strikes can damage infrastructure, leading to electrical surges that can cause power outages and service disruptions. This phenomenon also affects outdoor activities and tourism, while the economic burden includes increased insurance claims and repair costs.	and alters precipitation, leading to more intense thunderstorms and frequent lightning strikes. Urbanization can enhance this effect, posing risks to public safety and infrastructure.	causing property damage and wildfires, leading some residents to relocate. Areas with higher lightning activity may deter new residents, while safer locations could increase migration as people seek protection from severe weather.	use and development in the town of Brighton since the previous plan update.	
Severe Winter Weather	Heavy snow or blizzards can disrupt transportation, hinder emergency services, and cause infrastructure damage, such as roof collapses. These conditions can lead to increased municipal costs for snow removal and have a substantial economic impact on businesses, particularly in retail and tourism. Power outages also may occur, affecting heating during cold months.	Climate change impacts heavy snow and blizzards by altering precipitation patterns. Higher temperatures can lead to more rain than snow, affecting snowpack levels—additionally, increased storm intensity results in heavier, more unpredictable snowfall.	Increased population equals an increased number of people needing to get to work and quicker snow removal. Heavy snow or blizzards can impact population patterns by influencing where people live and work. Transportation disruptions may lead residents to seek housing closer to jobs, increasing density in some areas while depopulating others.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
			Families might also avoid regions with frequent heavy snowfall, shifting demand to milder areas. Over time, these trends can alter community demographics and economic activity, prompting adjustments in town planning and resource allocation.		
Tornado	Tornadoes can cause serious damage to property and infrastructure, leading to injuries and economic challenges. Urban areas are especially vulnerable, complicating emergency responses and disrupting essential services. The psychological impact can affect community wellbeing, potentially leading to changes in demographics and land use as residents seek safer locations.	Climate change may increase the frequency and intensity of tornadoes. Higher temperatures lead to more moisture in the air, creating conditions for severe thunderstorms. Changes in wind patterns and precipitation can also heighten tornado risks, resulting in more destructive storms and greater threats to infrastructure and communities.	Tornadoes can influence population patterns by prompting residents to move to safer areas after damage occurs. This can decrease density in affected neighborhoods while increasing demand for housing in safer regions. New residents may also move in for recovery opportunities, altering demographics. Over time, repeated tornado threats might push long-term residents to areas with better disaster preparedness, reshaping the town's population distribution.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased
Wildfire	Wildfires pose serious risks, including habitat damage, degraded air quality, and	By raising temperatures and creating drier conditions, prolonged	Displaced individuals often seek safer areas, shifting demographics,	There have been minimal changes in land use and development in	Increased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
	health issues for vulnerable populations. They can also lead to economic losses, property damage, and increased erosion that affects water quality.	droughts lead to more dry vegetation, which serves as fuel for fires. Erratic seasons extend the growing period, while more lightning strikes can ignite wildfires. These factors heighten the threat to ecosystems and community safety.	while declining property values might deter newcomers. Conversely, some may be drawn to rebuilding efforts, impacting long-term growth and community dynamics.	the town of Brighton since the previous plan update	
Dam Failure	Dam failure could lead to severe flooding, damaging homes and infrastructure, isolating communities, and hindering emergency responses. This may result in loss of life, especially among vulnerable groups, and trigger economic losses for local businesses and property values. Long-term effects could affect community stability and public health, while floodwaters may contaminate local waterways and disrupt ecosystems.	Climate change raises the risk of dam failure by causing heavier rainfall and rapid snowmelt. These changes can overwhelm dams and compromise their integrity, highlighting the need for urgent safety assessments and upgrades to protect communities downstream.	Dam failure tornadoes can impact population patterns by displacing residents and altering demographics. Evacuations can lead to an influx in safer areas, while the destruction may deter new residents and contribute to population decline. Fear of future disasters may prompt remaining individuals to relocate, changing the community's composition and affecting population density and economic activity.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased
Civil Disturbance	Civil disturbances can result in economic losses for businesses, create social divisions, and increase tensions among community	Climate change can increase civil disturbances by intensifying environmental stresses	By encouraging residents to move for safety, leading to outflows and new arrivals. These events	There have been minimal changes in land use and development in the town of Brighton	Increased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
	groups. They may overwhelm law enforcement, leading to fear and mistrust among residents. Essential services could be disrupted, affecting quality of life, while long-term impacts may include changes in community dynamics and public policy.	and social tensions. Rising temperatures may lead to droughts, wildfires, and poor air quality, particularly affecting vulnerable communities. Resource scarcity, especially water, can spark conflicts and protests. In addition, an influx of migrants from harder-hit areas may strain local resources, further escalating tensions. This cycle of unrest is driven by the impact of climate change on both the environment and community dynamics.	can reveal social issues, impacting community dynamics, employment, and property values, ultimately reshaping demographics, and social cohesion.	since the previous plan update.	
Cyberattack	Cyber-attacks can disrupt critical infrastructure like power and water services, complicating emergency responses. Businesses may face financial losses from downtime and data breaches, eroding consumer trust. The public sector's essential services, including law enforcement and public health, could be compromised, leading to fear and reduced community confidence.	Possible attack on the industry, which is seen as producing large amounts of greenhouse gases and burning fossil fuels. Climate change can heighten cyberattack risk by increasing vulnerabilities during extreme weather. Disruptions like power outages offer cybercriminals opportunities, but	Cyber-attacks can change population patterns by eroding trust in essential services. Compromised systems may cause residents to leave due to safety concerns, while high-profile incidents can deter businesses, leading to job losses. This perception of vulnerability may also make the town less appealing to newcomers, resulting in demographic	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
		focusing on emergency responses can weaken cybersecurity measures. As organizations adopt new technologies to cope with climate impacts, they may unintentionally introduce additional vulnerabilities.	shifts and affecting local development.		
Hazardous Materials Incident (Transportation & Fixed Facility)	Hazardous materials incidents can severely impact public health, the environment, and the economy. Health risks include serious illnesses from exposure, while environmental damage may lead to soil and water contamination. Economically, incidents can cause property damage, lower property values, and disrupt businesses. The community also faces stress from evacuations and anxiety about safety.	Climate change elevates the risk of hazardous materials incidents by increasing extreme weather events like heavy rain and wildfires. These events can breach storage tanks and heighten material volatility. Vulnerable infrastructure can lead to more spills or accidents, while climate shifts may also introduce new challenges for managing hazardous substances and public health.	By causing evacuations and temporary declines in density. In the long run, unsafe areas may deter new residents, affecting growth and diversity. In addition, negative perceptions can lower property values and economic prospects, leading families to relocate, which impacts local demographics.	There have been minimal changes in land use and development in the town of Brighton since the previous plan update	Increased
Public Health Epidemic/ Pandemic	Epidemics and pandemics can disrupt healthcare by overwhelming facilities and leading to resource shortages, diminishing care for all patients. Economic impacts may include business closures and job losses, particularly in	By increasing the spread of vector-borne diseases and raising the risk of waterborne illnesses due to flooding or drought. Worsening air quality can also exacerbate respiratory conditions	By prompting migration for safety and better healthcare. Vulnerable groups may move to areas with improved services, while economic instability can drive people to seek new employment	There have been minimal changes in land use and development in the town of Brighton since the previous plan update.	Increased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
	hospitality and retail. The strain on public health services can affect routine care, while mental health issues may arise due to isolation and uncertainty. Shifts to remote learning can hinder student development, and vulnerable populations face heightened risks. The erosion of public trust in health authorities might reduce compliance with guidelines.	like asthma, especially in vulnerable populations.	opportunities. In addition, restrictions like quarantine measures can limit movement and social interactions, reshaping the community's demographics and impacting local economies.		
Terrorism	Terrorism incidents can have significant impacts, including loss of life and emotional trauma for the community. Economically, they disrupt local businesses and tourism while creating fear and anxiety that affect social cohesion. Emergency services might be overwhelmed, requiring additional support, and increased security measures can alter daily life and raise concerns about civil liberties. Damage to critical infrastructure necessitates long-term repairs, and such incidents may deepen social divisions	Terroristic activity is sometimes centered around climate change. Climate change impacts terrorism incidents by creating conditions of resource scarcity and social unrest. Increased competition for essential resources like water can fuel tensions, making communities more vulnerable to extremist ideologies. Extreme weather events may disrupt social order and infrastructure, offering terrorist groups opportunities to exploit crises. In addition,	Terrorism incidents can alter population patterns by instilling fear and prompting residents to relocate to perceived safer areas, resulting in demographic shifts and potential declines in property values. Some neighborhoods may see an outflow of residents, while others could experience an influx of people seeking refuge from violence. In addition, increased security measures may deter businesses and residents from certain locations, leading to long-term changes in	There have been minimal changes in land use and development in the town of Brighton since the previous plan update	Increased

Type of Hazard Event	Description of Potential Impacts	Effects of Climate Change	Changes in Population Patterns	Changes in Land Use and Development	Overall Vulnerability
	and prompt changes in security policies, highlighting the need for effective preparedness and response strategies.	climate-driven population displacement can heighten tensions in receiving areas, raising the risk of domestic terrorism. Law enforcement's focus on climate-related challenges can also limit its capacity to address terrorism threats. Ultimately, while climate change may not directly cause terrorism, its effects can create an environment conducive to extremist activities.	population density and urban development patterns.		

Additional Public Involvement

The town of Brighton provided several opportunities for public participation. Figure 2 displays examples of public outreach.

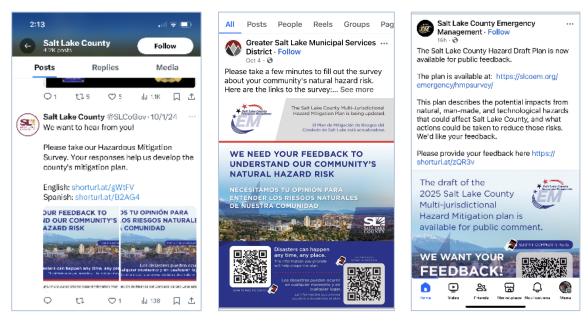


Figure 2: Social Media Posts for the Hazard Mitigation Survey (SLCo – *left*; MSD – *middle*), and the Draft Plan Review (SLCo EM – *right*)

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 10 lists existing planning mechanisms in which the Hazard Mitigation Plan has been integrated. Table 11 lists the opportunities for integrating elements of this plan into other plans

Table 10: Integration of Previous Plans by the Town of Brighton

Plan	Description
Community Wildfire Protection Plan	Includes goals to protect lives, structures, and watershed, and reduce wildfire intensity and duration and identifies mitigation actions.
Town of Brighton General Plan	Long-range planning guide for the town to address future growth and development. Addresses mitigation for wildfire, protection of waterways, avalanche, climate change and invasive species, transportation, and funding strategies for mitigation. Could be expanded to incorporate other hazards.

Table 11: Opportunities for Integration with Future Plans of the Town of Brighton

Plan	Description
Comprehensive Emergency Management Plan	Framework to prepare for, mitigate, respond to, and recover from the impact of hazards.
Salt Lake City Public Utilities Comprehensive Watershed Management Plan	Guiding document to protect canyon sources of drinking water from pollution.
Continuity Plan for Town of Brighton	Ensures the town is capable of conducting its daily operations under all threats and conditions.
Town of Brighton General Plan	Long-range planning guide for the town to address future growth and development. Addresses mitigation for wildfire, protection of waterways, avalanche, climate change, and invasive species but could incorporate other hazards.
Utah Wildlife Action Plan	Plan for managing native wildlife species and habitat.

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 12: Assessment of the Planning Capabilities of the Town of Brighton⁴

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	Υ	Unknown	Adopted November 2022.
Capital Improvement Plan	Υ	Unknown	MSD Strategic Plan 2024
Climate Change Adaptation Plan	N	Unknown	Unknown
Community Wildfire Protection Plan	Y – the current MSD plan has wildfire in it.	Unknown	2023
Economic Development Plan	N	Unknown	Unknown
Land Use Plan	Υ	Unknown	Town of Brighton General Plan 2022
Local Emergency Operations Plan	Y		2024 MSD Comprehensive Emergency Management Plan
Stormwater Management Plan	N	Unknown	2020 MSD Stormwater Management Plan
Transportation Plan	Y – Big Cottonwood Canyon Mobility Action Plan	Unknown	2024
Substantial Damage Plan	N	Unknown	Unknown
Other? (Describe)	Y – Community Wildfire Preparedness Plan (CWPP)	Unknown	Unknown

Table 13: Assessment of the Regulations and Ordinances of the Town of Brighton⁵

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	Y – Town of Brighton Title 19 Building codes ensure that structures are built to standard and brought up to code when remolding occurs. The town has adopted the current state version of the International Building Code (IBC 2021) and International	Unknown	Unknown

 ⁴ MSD = Municipal Services District.
 ⁵ FCOZ = Foothills and Canyons Overlay Zone.

Regulation/ Ordinance	Does it effectively reduce hazard impacts?	Is it adequately administered and enforced?	When was the last update? When is the next update?
	Residential Code (IRC 2021) as amended.		
Flood Insurance Rate Maps	Y – Unified Fire Authority	Unknown	Unknown
Floodplain Ordinance	N	Unknown	Unknown
Subdivision Ordinance	ivision Ordinance Y – FCOZ		Unknown
Zoning Ordinance	Y – FCOZ	Unknown	Unknown
Natural Hazard- Specific Ordinance (Stormwater, Steep Slope, Wildfire)	Ordinance ordinance. Town Regulation, Forest Service, Salt Lake City		Unknown
Acquisition of Land for Open Space and Public Recreation Use	Unknown	Unknown	Unknown
Prohibition of Building in At-Risk Areas	Y – FCOZ	Unknown	Unknown
Other? (Describe)	Unknown	Unknown	Unknown

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 14: Assessment of the Administrative Capabilities of the Town of Brighton⁶

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	Υ	Unknown	Unknown	Unknown
Civil Engineer	MSD	Unknown	Unknown	Unknown
Community Planner	MSD	Unknown	Unknown	Unknown
Emergency Manager	Υ	Unknown	Unknown	Unknown
Floodplain Administrator	MSD	Unknown	Unknown	Unknown
Geographic Information System (GIS) Coordinator	N – MSD	Unknown	Unknown	Unknown
Planning Commission	Υ	Unknown	Unknown	Unknown

⁶ MSD = Municipal Services District, UFA = Unified Fire Authority.

Administrative Capability	In Place? (Y/N)	Is staffing adequate?	Are staff trained on hazards and mitigation?	Is coordination between agencies and staff effective?
Fire Safe Council	N – UFA does fire protection	Unknown	Unknown	Unknown
CERT (Community Emergency Response Team)	N	Unknown	Unknown	Unknown
Active VOAD (Voluntary Agencies Active in Disasters)	N	Unknown	Unknown	Unknown
Other? (Please describe.)				

Table 15: Assessment of the Technical Capabilities of the Town of Brighton⁷

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	MSD	Unknown	Unknown
Hazard Data and Information	MSD	Unknown	Unknown
GIS	MSD	GIS has help generate Evacuation Zones	GIS future projects will plot resources that are stored or will be staged
Mutual Aid Agreements	MSD	Unknown	Unknown
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.

⁷ MSD = Municipal Services District.

Table 16: Assessment of the Financial Capabilities of the Town of Brighton

Funding Resource	In Place? (Y/N)	Has it been used in the past and for what types of activities?	Could it be used to fund future mitigation actions?	Can it be used as the local cost match for a federal grant?
Capital Improvement Project Funding	Y – capital fund	Unknown	Y	Υ
General Funds	Y – town budget	Y – fuel reduction projects, infrastructure improvements	Y	Y
Hazard Mitigation Grant Program (HMGP/404)	N	N	Y	N
Building Resilient Infrastructure & Communities (BRIC)	N	N	Y	N
Flood Mitigation Assistance (FMA)	N	N	Y	N
Public Assistance Mitigation (PA Mitigation/406)	Unknown	N	Y	N
Community Development Block Grant (CDBG)	Υ	Unknown	Υ	Υ
Natural Resources Conservation Services (NRCS) Programs	N	Unknown	Y	N
U.S. Army Corps (USACE) Programs	N	Unknown	Υ	N
Property, Sales, Income, or Special Purpose Taxes	Y – sales (local, resort, highway/transit)	Unknown	Y	Υ
Stormwater Utility Fee	Υ	Unknown	Υ	Υ
Fees for Water, Sewer, Gas, or Electric Services	Y – special districts within Brighton have these.	Unknown	Y	Υ
Impact Fees from New Development and Redevelopment	Υ	Unknown	Υ	Υ
General Obligation or Special Purpose Bonds	Υ	Yes – infrastructure improvements	Y	Y
Federal-funded Programs (Please describe)	Emergency Solutions Grant; HOME Investment Partnership	Unknown	Yes – support for shelters, property acquisition	N

Funding Resource	In Place? (Y/N)	Has it been used in the past and for what types of activities?	Could it be used to fund future mitigation actions?	Can it be used as the local cost match for a federal grant?
			and development of housing	
Private Sector or Nonprofit Programs	N	Unknown	Υ	Υ
Other?	Unknown	Unknown	Unknown	Unknown

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 17: Assessment of the Education and Outreach Capabilities of the Town of Brighton⁸

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)	Υ	Υ	Υ
Hazard Awareness Campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, School Programs)	Y – Brighton is a Firewise Community, Chipper Days	Y	Y
Public Meetings/Events (Please describe.)	Υ	Υ	Y
Emergency Management Listserv	Y through MSD/ UFA	Υ	Y
Local News	Υ		
Distributing Hard Copies of Notices (e.g., public libraries, door-to-door outreach)	Υ	Y	Υ
Insurance Disclosures/ Outreach	Unknown	Unknown	Unknown
Organizations that Represent, Advocate for, or Interact with Underserved and Vulnerable Communities (Please describe.)	Unknown	Unknown	Unknown
Social Media (Please describe.)	Y – Facebook	Υ	Υ
Other? (Please describe.)			

⁸ MSD = Municipal Services District, UFA = Unified Fire Authority.

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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 18 lists the opportunities for the town of Brighton.

Table 18: Opportunities to Expand or Improve the Capabilities of the Town of Brighton

Capability	Opportunity to Expand and/or Improve
Planning and Regulations	Improvement of local knowledge and capabilities will occur with encourage of ongoing exploration and review of unknowns in the context of planning and regulations. A culture of continuous learning and capacity building among local officials, planners, and community members will occur.
Administrative and Technical	To address the unknowns in the administrative and technical capabilities table, several opportunities for improvement and expansion can be considered. For the Chief Building Official, it is essential to conduct a thorough staffing assessment to determine if the current levels are adequate. In addition, providing specialized training on hazards and mitigation strategies and enhancing coordination through regular interagency meetings would be beneficial. For the Civil Engineer, evaluating the current workload and staffing needs is crucial. Offering targeted training programs focused on hazard identification and mitigation techniques and enhancing coordination through collaborative projects could improve capabilities. The Community Planner's effectiveness can be boosted by assessing staffing adequacy, implementing continuous professional development programs on hazard and mitigation planning, and fostering better interagency coordination through joint task forces or working groups. For the Emergency Manager, reviewing staffing levels, ensuring that staff are trained in the latest hazard mitigation practices, and creating a centralized communication system to streamline coordination are key steps. The Floodplain Administrator's capabilities can be enhanced by performing a staffing review, introducing training modules covering flood hazards and mitigation measures, and organizing inter-departmental workshops to improve coordination. Hiring or training staff to manage GIS functions effectively, facilitating training sessions on GIS tools, and establishing clear protocols and regular meetings for improved coordination can strengthen the capabilities of the GIS Coordinator role.
Financial	To address the unknowns in financial capabilities, several opportunities for improvement and expansion can be considered. It is essential to conduct a comprehensive assessment to identify existing funding resources and their past use. This assessment will provide a clear understanding of which resources have been used for specific activities and can fund future mitigation actions.
Education and Outreach	To address the unknowns in education and outreach capabilities, there are several opportunities for improvement and expansion. First, it is essential to conduct an indepth assessment of current insurance disclosures and outreach practices to understand the integration of hazard mitigation information. Collaborating with insurance companies, including mitigation-related content in their communications to policyholders, can increase awareness and preparedness. Next, identifying and engaging with organizations that represent, advocate for, or interact with underserved and vulnerable communities is crucial. Partnering with these organizations can help tailor hazard mitigation messages to the specific needs of these communities, ensuring that critical information reaches those most at risk. This collaboration can lead to the development of targeted outreach

Capability	Opportunity to Expand and/or Improve
	programs and initiatives that effectively address the unique challenges faced by these communities.
	For social media, a comprehensive strategy should be developed to leverage platforms such as Facebook. This strategy should include regularly updating content, engaging with the community through interactive posts, and using social media analytics to measure the effectiveness of outreach efforts. Expanding the use of social media to other platforms can also increase the reach and impact of hazard mitigation messages.

Mitigation Strategy

Mitigation strategies provide proactive measures that are designed to minimize the impacts of hazards on the town of Brighton. The Town of Brighton did not participate as a separate jurisdiction in the previous plan; therefore, no previous mitigation actions were available. Table 19 shows mitigation action alternatives, and Table 21 is the 2025 mitigation action plan for the town of Brighton.

Table 19: Mitigation Action Alternatives for the Town of Brighton

Action	Type of Action	Selected for inclusion in the plan?	If not selected, why not?
Public education	Education and Awareness Programs	Public education	
Severe weather that shuts down roads/ access for residents	Natural Systems Protection	Severe weather that shuts down roads/ access for residents	
Brighton Bridge Improvements	Structure and Infrastructure Projects.	Brighton Bridge Improvements	

Table 20: Status of Prior Mitigation Actions of the Town of Brighton⁹

Action	Hazard(s)	Agency Lead	Support Agency(ies)	Status Update (if ongoing, explain)		
Remove debris from the 14 miles of Big Cottonwood Creek to enhance the natural flow.	Flood (Riverine), Flooding (Urban/Flash Flooding), Severe Thunderstorm, Severe Winter Storm	Brighton	Neighboring jurisdictions, Salt Lake County	Ongoing. 2022 cleanup removed debris.		
Install three (3) horn notification/ warning systems.	All hazards	Brighton	N/A	Implemented new notification system in 2021 using IPAWS. Action not carried forward to 2025		

⁹ IPAWS = Integrated Public Alert and Warning System, Unified Fire Authority.

Action	Hazard(s)	Agency Lead	Support Agency(ies)	Status Update (if ongoing, explain)			
Bury powerline to decrease power outage potential and to mitigate the potential for wildfires.	All hazards	Brighton	Utilities	Ongoing. 35 miles of lines that will be placed underground.			
Continue to participate in Firewise, including strict fire codes and programs within the fire department.	Wildfire	Brighton	UFA	Ongoing			
Trim trees to reduce potential to spark fires and decrease power outage potential.	All hazards, especially Wildfire	Brighton	UFA	Ongoing. UFA has regular chipper days and completes home assessments with homeowners.			

Table 21: 2025 Mitigation Action Plan for the Town of Brighton¹⁰

#	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	Town of Brighton	SLCo EM, UPD, UFA, MSD, SLCo IT, SLCo PW, SLCo Clerk's Office, Sheriff's Office	Increased security protocols (both in technology and policy) for staff/first responders, clear expectations/ understanding for local jurisdictions and the public	Low	Brighton General Fund, UPD, Sheriff's Office, UFA, MSD	Short term	Medium	
2	Develop and implement public education programs on disaster awareness and mitigation.	Avalanche, Civil Disturbance, Dam Failure, Drought, Earthquake, Extreme Heat, Extreme Cold, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide, Lightning, Public Health Epidemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	Town of Brighton, MSD	SLCo EM, UFA, UPD, Sheriff's Office, SLCo PW	Improved understanding of local resources, improve relationships with the public and stakeholders. Outlined plans/SOPs for programs. Share information digitally and in-person on topics such as how to complete non-structural retrofits on homes to reduce the risk of earthquakes and home weatherization for extreme cold/severe winter weather events.	Low	Brighton General Fund, SLCo EM Budget	Short term	Medium	
3	Integrate WebEOC, Crisis Track, GIS, and other technological enhancements throughout the county.	Avalanche, Civil Disturbance, Dam Failure, Drought, Earthquake, Extreme Heat, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide, Lightning, Public Health Epidemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	Town of Brighton, MSD	SLCo EM, UFA, UPD, SLCo PW, SLCo Health Department	Common operating platform for stakeholders, increased situational awareness, improved response time.	Medium	Brighton General Fund, SLCo EM Budget, UFA Budget	Medium Term	Medium	Existing software that we just need to inform documentation/ training on.
4	Enhance and continue to promote the implementation of CERT and SAFE Hubs.	Avalanche, Civil Disturbance, Dam Failure, Drought, Earthquake, Extreme Heat, Extreme Cold, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide, Lightning, Public Health Epidemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	Town of Brighton, MSD	SLCo EM	Improved awareness of local resources	Medium	Brighton General Fund, SLCo EM Budget, UFA Budget,	Short term	Medium	SAFE Hubs (previously S.A.F.E. Neighborhoods) is currently going through a rebrand with new public awareness campaign and information for all partners.
5	Establish an access and functional needs registry and improve incorporation of those with access and functional needs in plans.	Avalanche, Civil Disturbance, Dam Failure, Drought, Earthquake, Extreme Heat, Extreme Cold, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide, Lightning, Public Health Epidemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	Town of Brighton, MSD	SLCo EM, MSD, UFA, UPD, Sheriff's Office	Improved situational awareness for the public and stakeholders, greater understanding of resources available for those with access and functional needs.	Low	Brighton General Fund, SLCo EM Budget, UFA Budget, MSD, State of Utah	Short term	High	The State of Utah's Access and Functional Needs Registry is dissolving in 2025. The county needs a way to account for those with access and functional needs, including incorporation into plans/SOPs.

¹⁰ ATF = Bureau of Alcohol, Tobacco, Firearms and Explosives, CWPP = Community Wildfire Protection Plan, DHS = Department of Homeland Security, FBI = Federal Bureau of Investigation, FMA = Flood Mitigation Assistance, GIS = Geographic Information System, HHPD = High Hazard Potential Dams, LEPC = Local Emergency Planning Committee, MSD = Municipal Services District, NWS = National Weather Service, SIAC = Statewide Information and Analysis Center, SLCo EM = Salt Lake County Emergency Management, SLCo IT = Salt Lake County Information Technology, SLCo PW = Salt Lake County Public Works, SOP = Standard Operating Procedure, 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
6	Snow sheds – Construct snow sheds for avalanche mitigation in Big Cottonwood Canyon.	Avalanche	UDOT, Town of Brighton	SLCo EM, MSD, UFA, UPD	Diminish road closure time, preserve life and safety from avalanches (personal injuries, car/infrastructure damage, safety of first responders and UDOT staff)	High – \$72–\$90 million	UDOT Operational Budget, Brighton Capital Improvement Fund	Long term	Medium	
7	Bring deficient high hazard dams up to current industry standards.	Dam Failure	Dam owners/ water companies	Town of Brighton, SLCo EM, MSD	Life and safety (personal injuries, safety of first responders), damage to critical infrastructure	High	SLCo PW, Dam owners, Salt Lake City Public Utilities, Brighton Capital Improvement Fund, State of Utah DWR, HHPD	Long term	High	
8	Procure generators and transfer switches for public facilities and critical facilities.	Extreme Heat, Extreme Cold	Town of Brighton, MSD	SLCo EM, SLCo Parks and Recreation, school districts.	Provide backup generators for cooling centers and code blue centers. Accurate inventory of what the county has to provide to other agencies or jurisdictions as needed.	Medium	Brighton General Fund, SLCo General Fund, MSD General Fund	Long term	Medium	
9	Increase the size of culverts and bridges.	Flooding	SLCo PW, MSD	SLCo EM	Allow for larger runoff during the spring melt season, reduce the amount of debris buildup.	Medium	SLCo PW Capital Projects Fund, UDOT operational budget, MSD		Medium	
10	Coordinate with SLCo EM to understand and procure FMA grants.	Flooding	SLCo EM	Town of Brighton, SLCo PW, MSD	Improved understanding of grants available and how money can be used for mitigation efforts.	Low	SLCo EM General Fund, Brighton General Fund, MSD General Fund, State of Utah	Medium term	Medium	
11	Develop an enhanced emergency notification communication system for the county.	Avalanche, Civil Disturbance, Dam Failure, Drought, Earthquake, Extreme Heat, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide, Lightning, Public Health Epidemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	SLCo EM	Town of Brighton, MSD, UFA, UPD, local jurisdictions, UDOT	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.	High – \$1 million	SLCo General Fund, MSD General Fund, Brighton General Fund, grant program	Short term	Medium	
12	Promote the Firewise Initiative and regularly review/ update the Community Wildfire Protection Plans (CWPP) for at-risk communities.	Wildfire	UFA	SLCo EM, MSD, Town of Brighton	Increased awareness of plans (for the public and stakeholders), improved eligibility for grants/other funding sources, and regular review of CWPP.	Low	SLCo General Fund, MSD General Fund, Brighton General Fund	Short term	Medium	

#	Action	Hazard(s)	Lead Agency	Potential Partners	Benefits (Losses Avoided)	Cost Estimate	Funding Source(s)	Timeframe	Priority	Comments
13	Conduct public awareness campaign on Tier 2 reporting software for chemical reporting.	Hazardous Materials Incident	UFA	SLCo EM, UPD, Town of Brighton, Sheriff's Office, Rio Tinto	Improved understanding of Tier 2 reporting and how local agencies/jurisdictions can find and submit information. A common operating platform for hazardous materials reporting.	Low	SLCo General Fund, MSD General Fund, Brighton General Fund, State of Utah	Long term	Medium	
14	Enact countywide regulations and codes for development to reduce landslide and slope failure damage to critical infrastructure and buildings.	Landslide and Slope Failure	SLCo Office of Regional Development	SLCo EM, UFA, MSD, Town of Brighton	Reduce the likelihood of landslides and critical infrastructure/building damage. Ensure that future development is up to code and follows policy to avoid repetitive loss properties.	Low	SLCo General Fund, MSD General Fund, Brighton General Fund, State of Utah	Long term	Medium	
15	Leverage WebEOC and GIS to track the spread of contagious disease.	Public Health Epidemic/Pandemic	SLCo Health Department	SLCo EM, UFA, MSD, UPD, Sheriff's Office, Town of Brighton	Use GIS and WebEOC software to maintain situational awareness and track illnesses throughout the county.	Low	SLCo EM General Fund, MSD General Fund, Brighton General Fund, SLCo Health Department (SLCo General Fund), State of Utah	Short term	Medium	This is software that county/ local jurisdictions already have, so they just need to do a better job of training/documentation.
16	Create public awareness campaigns and public education programs on radon risks and provide home testing for radon.	Radon	SLCo EM, Town of Brighton	MSD, Aging and Adult Services, SLCo Health Department, local jurisdictions	Decrease radon-caused cancer deaths. Increase engagement/ understanding with the public about what SLCo can do or help with.	Low	SLCo EM General Fund, MSD General Fund, Brighton General Fund, State of Utah	Short term	Low	
17	Develop a road resurfacing project, including permeable pavement for areas with rain-based flooding.	Heavy Rain	SLCo PW and Municipal Services	SLCo Parks and Recreation Department, MSD, local jurisdictions	Reduce pollutants discharged in runoff, reduce maintenance time/costs on roads, improve traction on roads.	Medium	SLCo PW Capital Projects Fund, UDOT Operational Fund, grant program	Long term	Low	
18	Create a public education program for property owners to learn about tree maintenance and high-strength windows.	High Wind	SLCo EM	Aging and Adult Services, SLCo PW and Municipal Services, UFA, Town of Brighton, MSD	Reduce damage during high wind events to critical infrastructure. Prevent personal injuries (people driving on roads or walking in neighborhoods). Improve relationships with stakeholders and the public.	Low	SLCo PW, SLCo General Fund, MSD General Fund, Brighton General Fund, UFA General Fund	Short term	Low	
19	Develop a severe winter weather mitigation program to maintain access to primary roadways	Severe Winter Weather – Heavy Snow, Blizzard, Extreme Cold	SLCo PW for Municipal Services	SLCo EM, Town of Brighton, MSD, UDOT	Emergency services like police, fire, and paramedics can use roads to provide their services.	Low	MSD, SLCo EM and Town of Brighton General Fund	Short term	High	A severe winter storm with heavy snowfall requires operators and equipment to clear roads and streets for public and emergency vehicle

#	Action	Hazard(s)	Lead Agency	Potential Partners	Benefits (Losses Avoided)	Cost Estimate	Funding Source(s)	Timeframe	Priority	Comments
	and evacuation routes.									access. The primary effort will be to keep the roads open by clearing snow.
20	Conduct a public awareness campaign about lightning safety.	Lightning	SLCo EM, Town of Brighton	SLCo Parks and Recreation, UFA, SLCo PW, MSD	Lightning strike awareness for the public	Low	MSD, SLCo EM and Town of Brighton General Fund	Short term	Low	
21	Improve outreach for "See Something, Say Something" QR code to deter terrorist acts.	Terrorism (including Cyberattack)	SLCo Sheriff's Office	SLCo EM, UPD, UFA, MSD, Town of Brighton, SLCo IT	Ensure that residents and local agencies/jurisdictions are aware of local intelligence resources and ways in which they can report suspicious activity. Encourage QR code use/outreach at special events throughout the county.	Low	MSD, SLCo EM and Town of Brighton General Fund	Short term	Medium	
22	Partner with county to develop a countywide intelligence group/ division to monitor and analyze threats before an incident occurs.	Terrorism (including Cyberattack)	SLCo EM	Town of Brighton, SLCo Sheriff's Office, SIAC, DHS, ATF, FBI		Medium	MSD, SLCo EM and Town of Brighton General Fund	Short term	Medium	This would be a core group of stakeholders that meet on a regular basis to share and collaborate on intelligence data.
23	Code enforcement – Review critical infrastructure facilities to ensure that building materials are up to code and are tornado resistant.	Tornado	SLCo EM	MSD, Town of Brighton, SLCo PW	Ensure that critical infrastructure facilities are operational/ functional in the event of a disaster. Preserve life and safety.	Low	MSD, SLCo EM and Town of Brighton General Fund, UFA General Fund	Short term	Low	
24	Enhance interoperable radio communications systems throughout the county.	Avalanche, Civil Disturbance, Dam Failure, Drought, Earthquake, Extreme Heat, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide, Lightning, Public Health Epidemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	SLCo EM	Town of Brighton, UFA, UPD, Sheriff's Office	Improved communication between different agencies, common operating platform.	Medium	MSD, SLCo EM and Town of Brighton General Fund	Short term	Medium	
25	Develop a countywide single source of information sharing/gathering for intelligence.	Civil Disturbance, Terrorism	SLCo EM	Town of Brighton, SLCo Sheriff's Office, SIAC	Improved coordination between local agencies/jurisdictions.	Medium	MSD, SLCo EM and Town of Brighton General Fund	Short term	Medium	Have one common operating platform to be used by all agencies in Salt Lake County to collect suspicious activity reports. Develop a public awareness campaign to educate the public on how and what to report.
26	Install xeriscaping on government-owned buildings to combat	Drought	SLCo Facilities	Town of Brighton, Water companies/ districts, MSD, State of Utah	Decrease the cost of landscape irrigation, decrease water use	Medium	SLCo Facilities General Fund, State of Utah, local	Short term	Low	

#	Action	Hazard(s)	Lead Agency	Potential Partners	Benefits (Losses Avoided)	Cost Estimate	Funding Source(s)	Timeframe	Priority	Comments
	drought conditions and conserve water.						jurisdictions, MSD, SLCo EM and Town of Brighton General Fund			
27	Improve communication to the public and stakeholders on resources available when Code Blue is in effect during severe winter weather.	Severe Winter Weather	SLCo EM	Town of Brighton, MSD, Office of Homeless and Criminal Justice Reform	Prevents further damage to critical infrastructure, ensures that homeless individuals have warming resources available, offloads some of the pressure on local homeless resource providers with standard protocols to follow with Code Blue.	Low	SLCo EM General Fund, SLCo Health Department General Fund, State of Utah	Short term	Low	
28	The town would like to increase its monitoring of earthquake/seismic movement through strategic sensor placement.	Earthquake	SLCo EM	Town of Brighton	Sensor equipment can help forewarn the public and scientists in advance of ground shifting and seismic activity which could save lives.	High — \$500,000	SLCo EM General Fund, Town of Brighton General Fund, NWS	Medium term	Medium	
29	The town would like to increase its shelters to accommodate for extreme cold conditions that affect the public.	Extreme Cold	Town of Brighton	SLCo EM	Shelters are instrumental in saving lives during extreme cold events for individuals that do not have permanent housing, or individuals whose heat is not working.	High — \$200,000	Town of Brighton General Fund, SLCo EM General Fund, SLCo Health Department General Fund	Medium term	High	
30	Remove debris from the 14 miles of Big Cottonwood Creek to enhance the natural flow.	Flood (Riverine), Flooding (Urban/Flash Flooding), Severe Thunderstorm, Severe Winter Storm	Brighton	Neighboring jurisdictions, Salt Lake County	Natural flow helps reduce the risk of potential flooding. Some areas have been completed but may need a repeat effort.	Low	Brighton General Fund	Short term	Medium	Ongoing. 2022 cleanup removed debris.
31	Bury power lines to decrease power outage potential and mitigate the potential for wildfires.	Avalanche, Civil Disturbance, Dam Failure, Drought, Earthquake, Extreme Heat, Extreme Cold, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide, Lightning, Public Health Epidemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	Brighton	Utilities	Reduces risk of power lines and other utility damage during high wind events. Reduces risk of sparking fires and power outages.	High	Brighton General Fund	Long term	Medium	Ongoing. Thirty-five miles of lines that will be placed underground.
32	Continue to participate in Firewise, including strict fire codes and programs within the fire department.	Wildfire	Brighton	UFA	Reduces risk of loss of life and property damage from wildfires. Requires ongoing activity.	Low	UFA Budget, Brighton General Fund, MSD	Ongoing	Medium	Ongoing.

#	Action	Hazard(s)	Lead Agency	Potential Partners	Benefits (Losses Avoided)	Cost Estimate	Funding Source(s)	Timeframe	Priority	Comments
33	Trim trees to reduce the potential to spark fires and decrease power outage potential.	Avalanche, Civil Disturbance, Dam Failure, Drought, Earthquake, Extreme Heat, Extreme Cold, Flooding, Hazardous Materials Incident, Heavy Rain, High Wind, Landslide, Lightning, Public Health Epidemic, Radon, Severe Winter Weather, Terrorism, Tornado, Wildfire	Brighton	UFA	Reduces risk of power line and other utility damage during high wind events. Reduces risk of sparking fires and power outages.	Medium	UFA Budget, Brighton General Fund, MSD	Short term	Medium	Ongoing. UFA has regular chipper days and completes home assessments with homeowners.
34	Enhance the spillway capacity of the Lake Mary-Phoebe Dam structure.	Dam Failure	Salt Lake City Corporation	Salt Lake County EM, Utah Division of Water Rights Dam Safety Section, Salt Lake City Public Utilities, Local Governments	Upgrade spillway capacity to manage extreme flood events, as suggested in the dam safety inspection and construction reports, and reduce potential losses from failure.	High	Salt Lake County General Fund, HHPD Grant, HMGP Grant	Short term	Medium	
35	Implement seepage control measures for Lake Mary-Phoebe Dam.	Dam Failure	Salt Lake City Corporation	Salt Lake County EM, Utah Division of Water Rights Dam Safety Section, Salt Lake City Public Utilities, Local Governments	Implement pressure grouting to reduce seepage, as outlined in the Lake Mary–Phoebe Dam inspection and annual reports.	Medium	Salt Lake County General Fund, HHPD Grant,	Short term	High	
36	Rehabilitate or complete other safety projects for high hazard potential dams (HHPDs) based on dam safety reports or risk studies.	Dam Failure	SLCo EM	Salt Lake County Public Works Flood Control Engineering, Utah Division of Water Rights Dam Safety Section, Salt Lake City Public Utilities, Local Governments	Reduce potential losses from failure of HHPDs.	High	Salt Lake County General Fund, HHPD Grant, HMGP Grant	Long term	High	New