

ANNEX A UNINCORPORATED SUMMIT COUNTY

Jurisdictional annexes provide specific information unique to each jurisdiction participating in the hazard mitigation plan. For unincorporated Summit County, countywide information related to sections A.1 Community Profile, A.2 Hazard Identification and Profiles, and A.3 Vulnerability Assessment is addressed previously in the main plan. The location of this information is referenced below. The remainder of this annex focuses on the Capability Assessment and Mitigation Strategy unique to the County government.

A.1 Community Profile

Community profile information and the base map for Summit County are provided in Section 1.5 Planning Area Profile.

A.2 Hazard Identification and Profiles

Countywide hazard identification and profiles information can be found in Section 3.1 Hazard Identification and Section 3.2 Hazard Profiles.

A.3 Vulnerability Assessment

The vulnerability assessment analyzes the population, property, and other assets at risk to hazards and estimates potential losses where data is available. Facilities owned by the County are inventoried in Table A-1. Other countywide vulnerability information is covered in Section 3.3 Vulnerability Assessment in the main plan.

Table A-1 Unincorporated Summit County—Critical Facilities and Other Community Assets

Name of Asset	Address	Replacement Value (\$)	Hazard Concerns
Breckenridge Area			
Courthouse	208 E. Lincoln	3,371,493	
Justice Facility	501 Park Drive	13,202,471	
District Attorney's Offices	1760 Airport Road Unit A	594,776	
Library	504 Airport Road	803,505	
Tyrollean Radio Site	Barney Ford Hill	23,683	
High School Radio Site	0059 CR 1	2,783	
Copper Mountain Area			
Copper Mountain Radio Site	SE of 3371 Hwy 91, Parcel 3	29,621	
Dillon Area			
Snake River Wastewater Treatment Plant	4344 Swan Mountain Road	21,411,693	
Snake River Wastewater Treatment	0297 Summit County Road 120	1,277,528	
Snake River Wastewater Treatment Plant Digestor	0297 Summit County Road 120	219,475	
Wastewater Treatment Plant	4344 Swan Mountain Road	2,104,672	



Name of Asset	Address	Replacement Value (\$)	Hazard Concerns
Sewage Lift Station	4533 Swan Mountain Road	48,333	
Material Recovery Facility	683 Landfill Road	2,878,001	
Water Storage Tank	642 Landfill Road	713,246	
Landfill Maintenance Garage	725 Landfill Road	1,849,981	
Frisco Area			
Ambulance Search and Rescue	128 CR 1004	401,887	Wildfire
Road and Bridge Building Department	128 CR 1004	383,009	Wildfire
Road and Bridge Main Shops	128 CR 1004	847,155	Wildfire
Storage	187 CR 1004	264,840	Wildfire
Sand Storage	218 CR 1004	74,006	Wildfire
Bus Garage	0222 SCR 1004	754,469	Wildfire
Library/Administration	0037 CR 1004	14,082,777	Wildfire
Emergency Services Facility	0227 CR 1003	2,348,292	Wildfire
Transfer Center	1010 Meadow Drive	626,000	
Animal Shelter, Classroom, Office	0191 CR 1004	1,702,308	Wildfire
Community and Senior Center	0151 CR 1004 Peak 1 Boulevard	3,661,946	Wildfire
Summit County Medical Offices	360 Peak One Drive	6,856,461	Wildfire
St. Anthony Summit Medical Center	340 Peak One Drive	N/A	Wildfire
Summit County Offices (2nd Floor)	360 Peak One Drive	870,000	Wildfire
Heeney Area			
Summit County Barn	1294 CR 30	80,864	
Summit County Road and Bridge Shop	6631 CR 30	80,046	
Heeney Radio Site	CR 30 at Willows Campground	24,827	
Keystone Area			
County Maintenance Building	1252 Keystone Ranch Road	96,276	
Landfill Maintenance/Storage Building	Landfill Road	13,356	
Snake River Radio Site	22393 Highway 6	939	
Silverthorne Area			
Search and Dive Rescue	222 Adams	79,830	
North Branch Library	651 Center Circle	3,197,017	
Wilderness Radio Site	Ryan Gulch Road at Wilderness	93,894	

Source: Summit County Office of Emergency Management

A.4 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capabilities assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation outreach and partnerships, and other mitigation efforts.

Regulatory Mitigation Capabilities

Table A-2 lists planning and land management tools typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in Summit County.



Table A-2 Summit County—Regulatory Mitigation Capabilities

Regulatory Tool (Ordinances, Codes, Plans)	Yes/No	Comments
Master Plan	Yes	2009 – update began in 2018
Zoning Ordinance	Yes	Summit County Development Regulations
Subdivision Ordinance	Yes	Summit County Development Regulations
Growth Management Ordinance	Yes	Summit County Development Regulations
Floodplain Ordinance	Yes	Floodplain Overlay District
Other Special Purpose Ordinance (Stormwater, Steep Slope, Wildfire)	Yes	Chapter 44 of the County Building Code, Fire Mitigation Standards for New Development Development Code Chapters 6 and 7 include erosion control and revegetation requirements
Building Code	Yes	Version: 2018 International Code Council
Erosion or Sediment Control Program	Yes	
Stormwater Management Program	Yes	All large-scale development is required to have drainage designed to handle the 25-year storm event. Detention must be provided that will release water at the 25-year historic rate.
Site Plan Review Requirements	Yes	
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	Yes	Complete re-write of existing plan being finalized in 2020.
Other Special Plans	Yes	Summit County Community Wildfire Protection Plan, Summit County Climate Action Plan
Flood Insurance Study or Other Engineering Study for Streams	Yes	FEMA Flood Insurance Study, November 16, 2018
Elevation Certificates	Yes	

Summit County Planning developed the matrix in Table A-3 listing their hazard mitigation measures. More detailed information on mitigation related plans and policies follows the matrix.

Table A-3 Development Constraints, County Concerns, and Mitigation Measures

Constraint	County Concerns	Mitigation
Flood Fringe	Flood hazards to structures; Public health, safety, and welfare	A. Compliance with County Floodplain Regulations (See Section 4100 of the Summit County Land Use and Development Code)
Floodway	Flood hazards to structures; Public health, safety, and welfare	A. Compliance with County Floodplain Regulations (See Section 4100 of the Summit County Land Use and Development Code)
Geologic Hazard Areas	Avalanche paths; Landslide areas; Rock falls; Debris flows; Mudflows;	A. Avoiding placement of structures on areas subject to geologic hazards
		B. Submitting geotechnical report identifying hazards and recommending methods of construction to alleviate hazards; designing structures in accordance with recommendations contained in geotechnical report (See Chapter 6 of the Summit County Land Use and Development Code)



Constraint	County Concerns	Mitigation
	Unstable slopes or soils; Seismic effects; Ground subsidence radioactivity	C. Providing grading and foundation plans prepared by a registered professional engineer (See Chapter 6 of the Summit County Land Use and Development Code) D. Complying with recommendations of the State Geological Survey (See Chapter 8 of the Summit County Land Use and Development Code) E. Modifying land uses so that structures are minimized or eliminated F. Clustering development to avoid hazard areas
Slopes Exceeding 30 Percent	Amount of site disturbance; Visual scarring; Slope stability; Soil erosion; Release of phosphorus; Wildfire potential (See also wildfire as constraint)	A. Avoiding placing such items as parking lots which require large, flat-surfaced areas on steep slopes B. Modifying land uses so site disturbance is minimized C. Proposing smaller scale rather than larger scale development in order to minimize the amount of site disturbance D. Designing structures so they are stepped or otherwise fit with the terrain E. Minimizing the extent of roads F. Clustering development to avoid steep slopes G. Providing financial commitment to, and implementation of, a revegetation program (Required by Chapter 5, 7 and Section 3600 of the Summit County Land Use and Development Code)
Wetlands	Degradation of natural environment; Loss of wildlife habitat; Loss of cleansing action of wetlands; Disruption of natural corridors; Loss of amenity in project	A. Proposing land uses which are not disruptive to wetlands B. Clustering development to avoid wetlands areas C. Complying with 404 permit procedures D. Replacing wetlands on a 1:1 basis within same ecosystem
Wildfire	Fire hazard to structures; Public health, safety, welfare	A. Submitting forest management plan approved by Colorado State Forest Service, and implementing measures needed to mitigate or eliminate hazard (required for areas of moderate or severe hazard by Chapter 8 of the Summit County Land Use and Development Code) B. Providing multiple points of access C. Using fire retardant roof covering materials in accordance with the building code D. Installing fire sprinkler system

Source: Summit County Planning Department

Countywide Comprehensive Plan, 2009

The Summit County Countywide Comprehensive Plan serves as the County’s policy guidance and directs decisions that affect the physical and socioeconomic development of the County. The plan’s overall vision is to “preserve and enhance our vibrant, attractive, and prosperous mountain community where people choose to live, work, recreate, and visit.” Goals and policies related to hazard mitigation include the following:



Environment Element

- Goal A: Protect and preserve environmentally sensitive areas.
 - Policy/Action 6: The County should work cooperatively with homeowner groups and the state and federal forest services to promote healthy and naturally diverse forests while reducing wildfire hazards.
- Goals B-F: Wetland preservation and enhancement.
- Goal H: Protect and enhance the quality and quantity of water resources in the County.
 - Policy/Action 1: Reduce water consumption and manage water resources in a more sustainable manner.
 - Policy/Action 2: Development and other land use activities (e.g., highway operations and industrial activities) should avoid water quality impacts from erosion and sedimentation and should not result in degradation of water quality as measured by Colorado’s Antidegradation Policy.
 - Policy/Action 8: Ensure that new development does not disturb surface or subsurface hydrologic flows to the extent that recharge of nearby wetlands and streams are adversely affected.
 - Policy/Action 14: Support projects that restore stream channels and natural conditions, provide erosion control, and improve fish and wildlife habitat.

Land Use Element

- Goal D: Guide the appropriate development of land through the County’s master plans and development regulations.
 - Policy/Action 3.1: To the extent practicable, retain trees and forested areas while providing protection of the resources listed above and while allowing for forest management practices necessary for forest health and wildfire prevention.

Design and Visual Resources Element

- Goal E: Avoid or minimize development impacts on steep hillsides and ridgelines.
 - Policy/Action 1: Development on ridgelines and steep slopes should be avoided wherever possible. Where no feasible alternative exists, buildings on ridgelines and slopes should be located and designed so that the existing visual dominance of the natural landform, vegetation and topography is maintained.
 - Policy/Action 2: Minimize the need for grading, earth moving, vegetation removal, and site disturbance related to development on sloped areas.
 - Policy/Action 3: Grading or earth moving to create a flat building pad on a slope should be discouraged; instead, buildings should be stepped to fit with the natural terrain.

Watershed Basin Master Plans

Each of the County’s four watershed basins, Upper Blue, Snake River, Ten Mile, and Lower Blue, has a basin master plan that provides further specific direction on land use decisions within the basin. Within



each basin, there may be a subbasin plan to address unique circumstances on a neighborhood or regional scale. The Snake River Master Plan addresses flooding, avalanche hazards, steep slopes and other geologic hazards, wildfire and the transportation of hazardous materials in various sections of the plan. Within the plan's Affordable Workforce Housing element wildfire is addressed in relationship with siting future development. One of the policies in Appendix C guides development to avoid slopes over 30 percent slope and 100-year floodplains. The plan also includes maps that identify hazardous areas including 30 percent or greater slopes and environmentally sensitive areas.

Summit County Land Use and Development Code

The Summit County Development Code is the legal framework outlining policies for development projects within the County's jurisdiction. It is organized under 16 chapters and various subsections. Code ordinances related to hazard mitigation are described below:

Zoning Regulations

3506: Transfer of Development Rights (TDRs) Program Regulations

Summit County's TDR program is another tool the County uses to protect the County's natural resources and lessening the risk of wildfire to future development in the backcountry. The program is divided into four geographically specific areas with the purpose of protecting rural backcountry parcels by allowing development rights to be voluntarily transferred from "sending" areas to the urban areas of the County or "receiving areas." In addition to the sending and receiving areas, the County has also identified neutral and optional areas, those that are either not suitable for sending or receiving development rights or those that are not eligible for receiving or sending density.

The Upper Blue Basin TDR Program began in 2000 and has successfully protected 1,415 acres, including 27 wetland lots of a total 14 acres. Owners of backcountry parcels voluntarily participate in the TDR program in exchange for giving up their right to develop a backcountry parcel for which they are monetarily compensated. When the property owner is compensated, the development rights are transferred into areas that can appropriately accommodate development, such as the Town of Breckenridge. Both County and town policies prohibit the upzoning of land or adding more units of density unless a TDR is acquired. To assist property owners in the TDR program a Joint Upper Blue TDR Bank was developed to bring prospective purchasers and sellers of TDRs together. The Bank is administered in coordination with the County and the Town of Breckenridge. One TDR is equal to 20 acres of backcountry property and is sold by the County for \$92,590 as of January 2020. In 2018 the County transferred density from 324 acres equating to 25.93 development rights to the Town of Breckenridge.

3200 Rezoning Policies

Summit County has established policies that apply whenever a zoning amendment (rezoning) is proposed in the unincorporated area of the County. These Rezoning Policies are intended to ensure that land with development constraints is avoided in accordance with the policies contained herein, and that development contemplates and is designed in a manner consistent with the terrain and natural features of the site and is compatible with existing development in the vicinity.

- **3202.02 Development Constraints:** An applicant requesting a zoning amendment that may impact land with development constraints shall provide a surveyed existing conditions plan depicting all of the following constraints, unless the Planning Department waives mapping such environmental constraints:
 - 1. Slopes of greater than 30 percent.



- 2. Areas subject to geologic hazards including avalanches, landslides, rock falls, mud flows, unstable slopes or soils, seismic effects, ground subsidence or radioactivity.
- 3. Any regulatory floodway or flood fringe area as depicted on the County's Floodplain Overlay District Maps.
- **3202.05 Wildfire Hazard Areas:** Rezoning Policies for wildfire hazard areas state that in determining appropriate densities for a particular property, the Board of County Commissioners will take into account: 1) the wildfire hazard as identified in the Summit County Community Wildfire Protection Plan; 2) the potential impact to the public health, safety and welfare; 3) wildfire mitigation measures as required and/or allowed by the County; and 4) the proximity of the proposed development site to existing fire stations and the corresponding response zone and its inclusion in a designated fire protection district. Development projects seeking a zoning amendment shall ensure that wildfire hazard areas do not pose an undue risk to the public health, safety and welfare. As a part of a zoning amendment application, the County may require:
 - A. The submittal of a forest management plan approved by the Colorado State Forest Service that includes proposed mitigation for any wildfire hazard area.
 - B. Inclusion in a fire protection district or other arrangement for fire protection
 - C. Other measures as deemed necessary to reduce the wildfire hazard including consideration of the goals and policies set forth in the CWPP.

On January 9, 2018 the BOCC adopted Wildfire Mitigation/Forest Management amendments to the County's Rezoning Policies specific to wildfire hazard areas and mitigation with the following amendments:

- Include new requirements for assessing wildfire hazard within all four of the basin master plans,
- Assessing wildfire hazards and potential mitigation as part of any rezoning/PUD modification request
- Requirements for ensuring that full Zones 1 and 2 defensible space are incorporated into any new subdivision approval
- Changes to fencing requirement
- Prohibitions against the storage of firewood within Zone 1 during the fire season

Overlay Districts

4100 Floodplain Overlay District

The BOCC finds there are areas within Summit County subject to flooding which may cause serious property damage and threaten the health, safety and welfare of its residents. The imprudent use and occupation of these flood hazard areas will pose a continuing danger to life and property unless appropriate regulations are implemented concerning the use, development and occupation of these areas. The purpose and intent of these Floodplain Regulations is as follows:

- A. To reduce the hazard of floods to life and property through:
 - 1. Prohibiting certain uses that are hazardous to life or property in time of flood from locating in the floodplain;
 - 2. Restricting the development of certain uses in the floodplain that are hazardous to public health in time of flood;
 - 3. Restricting the development of certain uses in the floodplain which are especially susceptible to flood damage, so as to alleviate hardship and eliminate demands for public expenditures for relief and protection; and,



- 4. Requiring permitted floodplain uses, including but not limited to public facilities that serve such uses, to be protected against floods by requiring floodproofing and general flood protection at the time of initial construction.
- B. To protect those who may occupy areas of the floodplain through:
 - 1. Regulating the manner in which structures and developments designed for human occupancy may be constructed and developed so as to minimize danger to human life within such structures;
 - 2. Regulating the method of constructing water supply and sanitation systems so as to prevent disease, contamination and unsanitary conditions resulting from inundation in time of flood;
 - 3. Regulating the location and method of constructing streets and bridges so as to prevent damage in time of flood; and,
 - 4. Requiring the provisions of this section and maps delineating floodplain areas be made available to the public so as to protect individuals from purchasing floodplain lands for purposes that are not suitable.
- C. To protect the public from the burden of avoidable financial expenditures for flood control and relief by regulating uses within floodplain areas so as to produce a method of construction and pattern of development which will minimize the probability of damage to property and loss of life or injury to the occupants of flood hazard areas.
- D. To protect and enhance the storage capacity of floodplains and to assure retention of sufficient floodway area to convey flood flows, which can reasonably be expected to occur by:
 - 1. Regulating filling, dumping, dredging, and alteration of drainage channels;
 - 2. Prohibiting excessive encroachments; and,
 - 3. Encouraging uses such as agriculture, recreation, and parking in floodplains.

The above regulations were reviewed and revised to conform with the updated State Floodplain Rules and Regulations that became effective statewide on January 14, 2011. The regulations were again revised to adopt the new maps prior to November 16, 2018. In 2019 FEMA and the CWCB visited with the Floodplain Manager and reviewed the existing regulations and practices. There are recommendations that will arise and be incorporated as a result of that meeting but have not yet been finalized as of the time of this plan.

Subdivision Regulations

Section 8100 Design Criteria and Required Improvements includes separate sections on Protection of the Natural Environment, Areas Subject to Environmental Hazard, Drainage, Fire Protection, and Soil Suitability criteria and requirements in new subdivisions.

Rural Land Use Subdivision (RLUS)

The Rural Land Use Subdivision encourages the efficient use of land through cluster development, the grouping or directing of new development to less sensitive areas within a subdivisions in order to protect environmentally sensitive lands including hazard prone areas. The County's RLUS regulations is intended to achieve the following goals:

- A. Implement goals of basin master plans and subbasin plans to protect the character of the County's rural areas.
- B. Provide incentives (e.g., simplified development review process, bonus densities) to landowners to choose the program rather than selecting other methods of land division
- C. Foster continued use of lands for ranching and agriculture



- D. Protect environmentally sensitive lands for ranching and agriculture
- E. Preserve open space
- F. Avoid disturbance of floodplains, steep slopes, and other geologically hazardous areas
- G. Preserve historic sites and structures
- H. Minimize visual impacts as seen from main public roads, when consistent with other goals
- I. Minimize extensive of roads and utilities
- J. Reduce exposure of new development to wildfire hazards.

Fire Hazard Mitigation Requirements for New Construction

Chapter 45 of the Summit County Building Code establishes minimum design and construction standards for the protection of life and property from fire within the wildland-urban interface. These provisions are meant to aid in the prevention and suppression of fires and lessen the hazards to structures from wildland fires as well as the hazards to wildlands from structure fires. New homes, additions and applications for building a new decks in any area in unincorporated Summit County must go through a wildfire mitigation inspection process.

Summit County Community Wildfire Protection Plan (CWPP), 2006, Readopted 2018

The purpose of the Summit County Community Wildfire Protection Plan is to establish a focused set of goals, policies, and implementation strategies specific to wildfire prevention and mitigation. The plan is a joint effort of the County, fire districts, State and Federal Forest Service, towns, the Northwest Colorado Council of Governments, and others. The document is organized into twelve sections and three appendices that include maps of focus areas for reducing wildfire risk and mitigation and implementation strategies. Appendix C details property specific implementation measures that support the goals of the overall document. The plan will be continuously updated. Since the plan's original adoption in 2006 the Wildfire Council and County staff continually review and refine the CWPP to meet the community's changing needs concerning wildfire protection. The plan has been revised in 2013 and again in 2018.

Evacuation Plan, 2020

The update to the Summit County Emergency Operations Plan in 2020 includes a new Functional Annex dedicated specifically to countywide evacuation. This plan will be all-hazards in nature and include evacuation plans and protocols for any incident requiring the protective order of evacuation.

Summit County Public Health Emergency Operations Plan, 2017

This plan was developed for the Summit County Public Health Department to promote a system to save lives, protect public health and the environment, alleviate damage and hardship, and to reduce vulnerability within Summit County. It provides guidance on overall emergency preparedness and concept of operations, roles, and responsibilities; Summit County Public Health Department emergency response organization; plan implementation process; and administrative, training, and exercising requirements.

Administrative/Technical Mitigation Capabilities

Table A-4 identifies the personnel responsible for activities related to mitigation and loss prevention in Summit County.



Table A-4 Summit County—Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position	Comments
Planner/Engineer with Knowledge of Land Development/Land Management Practices	Yes	Planning Department Engineering Department	
Engineer/Professional Trained in Construction Practices Related to Buildings and/or Infrastructure	Yes	Engineering, Building, Inspection Departments	
Planner/Engineer/Scientist with an Understanding of Natural Hazards	Yes	Engineering Department	
Personnel Skilled in GIS	Yes	GIS Department	
Full-Time Building Official	Yes	Building Inspection Department	
Floodplain Manager	Yes	Engineering Department/County Engineer	
Emergency Manager	Yes	County Manager’s Office/Director of Emergency Management	Full-time
Grant Writer	No	Several departments have staff that write grants as part of their work, including Transit Summit Stage, Public Health, and Youth and Family Services	
Other Personnel	Yes	Sheriff’s Office Fire Watch patrols	
Warning Systems/Services	Yes	Office of Emergency Management/Summit County 911 Center	Integrated Public Alert and Warning System for immediate public protective actions and SC Alert for emergency messaging and information.

The United States Geological Survey (USGS) provides real-time water data via their National Water Information System. Within Summit County, data from stream gauges detailed in Table A-5 are monitored for anomalies and potential flood conditions.



Table A-5 USGS Stream Gauges in Summit County

Station Name	Station Number
Monte Cristo Diversion (Hoosier Pass)	09041900
Bemrose-Hoosier Diversion (Hoosier Pass)	09044300
McCullough Diversion (Hoosier Pass)	09044800
Blue River (Breckenridge)	09046490
Blue River (Dillon)	09046600
Snake River (Montezuma)	09047500
Keystone Gulch (Dillon)	09047700
Ten Mile Creek (Frisco)	09050100
Blue River (Below Dillon Dam)	09050700
Straight Creek (Dillon)	09051050
Elliot Creek Feeder Canal (Green Mtn. Reservoir)	09056500
Blue River (Below Green Mountain Dam)	09057500

Source: Summit County OEM

Fiscal Mitigation Capabilities

Table A-6 identifies financial tools or resources that Summit County could potentially use to help fund mitigation activities.

Table A-6 Summit County—Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
Fees for Water, Sewer, Gas, or Electric Services	No
Impact Fees for New Development	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activities	No
Withhold Spending in Hazard Prone Areas	Yes

The fiscal capabilities of Summit County have been significant for wildfire mitigation efforts. Summit County, in partnership with the Summit County Wildfire Council, has created a sustainable wildfire mitigation funding source and made great strides in fuels reduction projects in an effort to mitigate wildfire hazards; a direct result of the continued implementation of Summit County mitigation actions #2 and #3. In 2011 the Summit County Wildfire Council recognized that an unfulfilled funding need existed for projects identified in the Community Wildfire Protection Plan (CWPP) that did not meet the criteria for the State’s Hazardous Fuels Reduction Grant Program. That recognition has led to the creation of the CWPP Implementation Grant Program. The County uses this program to provide funds or matching funds to leverage other wildfire mitigation grants. In 2018 and 2019, voters approved tax measures to continue



to fund wildfire prevention strategies, driven by the SCWC's implementation of the CWPP's goals and objectives. The tax measures allocate \$500K annually, in perpetuity, and an additional \$1M per year for a ten-year period (2018 - 2027). The County maintains an atlas of fuels reduction projects on its wildfire mitigation web page that is updated quarterly so that progress is documented on a regular basis. The Wildfire Council supports the concept of 'implementation' of the CWPP and funds not only defensible space projects, but hazard tree removal along right-of-way and bike paths, fire water storage systems, and comprehensive education programs.

Mitigation Outreach and Partnerships

Summit County is involved in the following mitigation related outreach programs and partnerships:

- Each spring, the governments of Summit County, Breckenridge, Dillon, Frisco, and Silverthorne distribute a packet of information to inform the communities about how to prepare for possible high water in May and/or June resulting from snowmelt.
- Wildfire mitigation work is a cooperative effort of the Summit County Government and the two fire districts: Red, White, and Blue Fire Protection District, and Summit Fire & EMS. The county has an appointed Wildfire Council, has adopted a Community Wildfire Protection Plan (CWPP), and for the past several years the Board of County Commissioners has dedicated funding for wildfire risk reduction projects.
- The County promotes fire education programs for the public and in schools.
- The Environmental Health Department regularly educates the public on disease prevention, including infectious disease and food safety.
- In February 2018 Summit County joined ongoing efforts with the non-profit High Country Conservation Center to develop and implement a climate action plan through the Summit Climate Action Collaborative. As part of the planning effort, an initial county-wide greenhouse gas (GHG) emissions inventory was completed. The plan has recommendations for reducing locally generated GHG emissions. Plan implementation will include working collaboratively with Xcel Energy, Mountain Parks Electric and other community partners.
- In 2018 the CSU Extension Program hosted 34 community education workshops, council and community presentation and field-based learning activities while partnering with similar organizations to promote forest health and wildfire preparedness.
- The Summit County Chipping Program helps property owners create defensible space by providing free chipping and disposal of branches, logs, and small trees. Property owner's clear woody vegetation around their homes and stack it into a slash pile for the county to chip it and haul it away for no cost.

Past Mitigation Efforts

Past mitigation efforts have focused on wildland-urban interface areas. The County has funded the following wildfire mitigation projects since 2006:

- Supplied \$50,000 as seed money to stimulate and encourage fuel reduction efforts on private lands valued at over \$200,000.
- Allocated \$20,000 toward a forester position in cooperation with the state and federal forest services.
- Actively managed four of its open space properties to mitigate the impacts of mountain pine beetle infestation and improve forest health. Properties managed include Blue Danube, Iron Springs, Mesa Cortina/Wilderness Buffer, and Mesa Cortina Trailhead.
- Cut and removed 2,130 trees from County lands.



- Sprayed 8,730 trees on County lands and on important public rights of way.
- In 2018 alone the County funded 4 Hazardous Fuels Reduction programs for a total cost of \$158,645, with a county contribution of \$76,822.50 and funded 4 CWPP Implementation projects at a total project cost of \$198,928 and a county contribution of \$124,699.
- The 2019 Chipping Program resulted in a total of 1,931 households participating. Chipping crews removed 3,738 slash piles and approximately 5,400 cubic yards were moved to the Climax Molybdenum Mine for reclamation efforts.

The following mitigation efforts from stakeholders were noted by the HMPC as having reduced the risk hazards pose to the Summit County Community.

- Fuels reduction efforts and the creation of a 900-acre fuel break created by the U.S. Forest Service around a subdivision near Silverthorne and Buffalo Mountain Metropolitan District. The project area was tested during the June 2018 Buffalo Mountain Fire. While 1,400 homes were evacuated, the fuel breaks have been attributed by fire managers as a significant reason for why the homes in that subdivision did not burn in the fire. Firefighters were able to stop the fire within the fuel break without any damages to property, infrastructure or individuals.
- During 2018-early 2019, the county experienced a large number of avalanches that caused impacts to critical infrastructure including power lines and highways. Xcel Energy began burying utility lines during the recovery process, lessening future avalanche impacts to existing infrastructure.

Opportunities for Enhancement

The 2020 update provided the County an opportunity to review and update the capabilities currently in place to mitigate hazards. This also provided an opportunity to identify where capabilities could be improved or enhanced. Specific opportunities could include:

- Integrate risk assessment information into future updates to the County's Comprehensive Plan as well as updates to any of the four basin master plans.
- Develop and implement an IGA with incorporated communities related to the TDR Program similar to the existing IGA with the Town of Breckenridge.
- Update the list of projects in the County CWPP.

A.5 Goals and Objectives

Summit County adopts the hazard mitigation goals and objectives developed by the HMPC and described in Chapter 4 Mitigation Strategy.

A.6 Mitigation Actions

The planning team for the unincorporated areas of the County identified and prioritized the following mitigation actions based on the risk assessment. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible agency, potential funding, estimated cost, and timeline also are included.

As part of its mitigation strategy, Summit County will continue to participate in and demonstrate compliance with the National Flood Insurance Program. This includes continuing to comply with the NFIP's standards for updating and adopting floodplain maps and maintaining and updating the floodplain zoning ordinance. Other details related to NFIP participation are discussed in the flood vulnerability discussion in Chapter 3.

Mitigation Action: Summit County—1 Vulnerable Populations

Jurisdiction:	Summit County
Action Title:	Coordinate vulnerable populations plans.
Hazard(s) Mitigated	Multi-Hazard
Priority:	High
Issue/Background:	Summit County needs to improve planning for vulnerable populations during natural disasters and other emergency events. This work also needs to be done to fulfill national mandates to identify and support vulnerable populations during emergency events. It will help to improve coordination and prevent duplication of efforts and confusion.
Ideas for Implementation:	The Summit County Department of Human Resources will begin a process through the Community Inclusion Sub-Committee, of the Summit County Local Emergency Planning Committee, to identify the role and responsibility of County government departments with regards to support for vulnerable populations. The work will involve creating a collaborative of the multiple partners and stakeholders that each know and serve a portion of this population. This work needs to be captured in a functional annex to the Summit County Emergency Operations Plan. Initial work in this area would identify immediate contact information so that an emergency could be handled immediately if necessary.
Responsible Agency:	Summit County Department of Human Resources
Partners:	Summit County Office of Emergency Management, Summit County Health Department, Summit County faith based organizations, Saint Anthony's Summit Medical Center, American Red Cross, as well as state and regional organizations
Potential Funding:	Summit County and jurisdictions
Cost Estimate:	Staff time
Benefits: (Losses Avoided)	<ul style="list-style-type: none"> • Protect public health and safety • Reduce community impacts of disaster and emergencies
Timeline:	2021
Status:	A draft Functional Annex to the EOP is under development and is anticipated for adoption by the end of 2020.



Mitigation Action: Summit County—2 Summit County Wildfire Council

Jurisdiction:	Summit County
Action Title:	Support and participate in the Summit County Wildfire Council.
Hazard(s) Mitigated	Wildfire
Priority:	High
Issue/Background:	The Summit County Government has participated in the Summit County Wildfire Council from its inception. We have committed staff time and resources in the completion and updating of the plan and GIS products. We have supported the Council from the Board of County Commissioners by providing grant opportunities and project prioritization.
Ideas for Implementation:	The Council's responsibilities will need to extend for many years to come and will require part-time or full-time staff assignment.
Responsible Agency:	CSU Extension and Summit County Wildfire Council
Partners:	Summit County Government; Towns of Breckenridge, Dillon, Frisco, and Silverthorne; Summit Fire and EMS and Red, White, and Blue Fire Protection Districts; U.S. Forest Service; and Colorado State Forest Service
Potential Funding:	Summit County
Cost Estimate:	\$45,000
Benefits: (Losses Avoided)	<ul style="list-style-type: none"> • Improve communication and coordination • Protect public health and safety • Reduce wildfire risk through fuel reduction projects
Timeline:	Annual Implementation
Status:	Summit County Government and the CSU Extension Office strongly support the work of the Wildfire Council. The Council acts as the advisory board to the Board of Commissioners on all matters related to wildfire. The Council administers an approximate \$350,000 budget for the local wildfire grant program, and public education. By 2019, nearly all of the attainable actions have been completed. The Summit County Wildfire Council will review and revise the action list to support ongoing community protection from wildfire efforts.



Mitigation Action: Summit County—3 Integration with Community Wildfire Protection Plan

Jurisdiction:	Summit County
Action Title:	Integrate wildfire mitigation strategies identified in the Summit County Community Wildfire Protection Plan (CWPP) into the multi-hazard mitigation plan.
Hazard(s) Mitigated	Wildfire
Priority:	High
Issue/Background:	Summit County recognizes that the CWPP is a subset of the broader multi-hazard mitigation planning effort. The HMPC is comprised of many of the same stakeholders as the group who developed and updated the CWPP.
Ideas for Implementation:	The HMPC will work to maintain and further integrate the wildfire mitigation strategies between the two plans so they complement one another, lead to coordinated efforts, and help to better position the County for future wildfire grant funding.
Responsible Agency:	Summit County Office of Emergency Management
Partners:	Summit County Government; Towns of Breckenridge, Dillon, Frisco, and Silverthorne; Summit Fire and EMS, and Red, White, and Blue Fire Protection Districts; Summit County Wildfire Council; U.S. Forest Service; and Colorado State Forest Service
Potential Funding:	Summit County
Cost Estimate:	Staff time
Benefits: (Losses Avoided)	<ul style="list-style-type: none"> • Improve communication and coordination • Reduce losses related to wildland-urban interface fires • Protect public health and safety
Timeline:	Annual Implementation.
Status:	Ongoing. This remains a priority and the 2020 plan update prioritize integration of all local plans



Mitigation Action: Summit County—4 Summit County Forest Health Group

Jurisdiction:	Summit County
Action Title:	Work with the Summit County Forest Health Task Force (formerly referred to as Mountain Pine Beetle Task Force) to strengthen public and stakeholder educational efforts.
Hazard(s) Mitigated	Wildfire
Priority:	High
Issue/Background:	The Summit County Forest Health Task Force has grown from a grassroots effort of business, citizens, and government to create a forum to discuss and understand the mountain pine beetle infestation and its impacts on communities in Summit County. The forum has a substantial following and plays a vital role in public and political education of these important issues. Education on mitigation activities that individuals can undertake is critical in a community that has a high number of vacation and second homeowners. The importance of education on local programs, defensible space, and funding opportunities is necessary to sustain focused attention by the public and government on this issue and its future ramifications.
Ideas for Implementation:	Summit County will continue to participate in and coordinate with the efforts of the Forest Health Group with a focus on improving public education. The importance of public education is critical to successful mountain pine beetle program implementation. The momentum established behind public and political education has grown to result in state and federal legislative attention and funding.
Responsible Agency:	Summit County Forest Health Task Force
Partners:	Summit County Government; Towns of Breckenridge, Dillon, Frisco, and Silverthorne; Summit Fire and EMS and Red, White, and Blue Fire Protection Districts; Summit County Wildfire Council; U.S. Forest Service; and Colorado State Forest Service
Potential Funding:	Summit County
Cost Estimate:	Staff time
Benefits: (Losses Avoided)	<ul style="list-style-type: none"> • Slow spread of invasive species infestation • Reduce losses related to wildland-urban interface fires • Provide public education about mitigation activities
Timeline:	Annual Implementation
Status:	Ongoing. Stakeholder involvement and participation is an important topic of Wildfire Prevention, Forest Health and Resilience is an ongoing effort. In addition to our connection with the Forest Health Task Force (FHTF), staff actively work with the Summit Association of Realtors (SAR), Open Space and Trails (OST: in the County and Town of Breckenridge), and have partnered with the Treasurer to include wildfire information in the annual Tax Mailer, to name a few. The Summit County Wildfire Council represents a number of additional partners.



Mitigation Action: Summit County—5 Vulnerability in Wildland-Urban Interface

Jurisdiction:	Summit County
Action Title:	Continue to enhance mapping of hazard and vulnerability analysis for wildland-urban interface areas of Summit County.
Hazard(s) Mitigated	Wildfire
Priority:	High
Issue/Background:	The Summit County Government GIS department has created digital mapping of the focus areas of highest concern for wildfire mitigation and fuel reduction efforts. Five categories were used to establish and identify the focus areas, and these were established in our first Community Wildfire Protection Plan and are updated annually. This information is used to specifically identify areas which receive our highest priority of work on the ground. We are sensitive to the importance of identifying the areas of highest vulnerability, which may be due to developed land use, critical infrastructure, or natural resources of high value.
Ideas for Implementation:	Data and mapping related to the wildland-urban interface fire hazard and vulnerability will be continually enhanced with the annual reviews of the Community Wildfire Protection Plan and will be integrated into the multi-hazard mitigation plan, when appropriate, and at each five-year update.
Responsible Agency:	Summit County GIS Department
Partners:	Summit County Government; Towns of Breckenridge, Dillon, Frisco, and Silverthorne; and Summit Fire and EMS, and Red, White, and Blue Fire Protection Districts; Summit County Wildfire Council
Potential Funding:	GIS Department work time
Cost Estimate:	20-40 hours staff time
Benefits: (Losses Avoided)	<ul style="list-style-type: none"> • Slow spread of mountain pine beetle infestation • Reduce losses related to wildland-urban interface fires • Provide public education about mitigation activities
Timeline:	Annual Implementation
Status:	Ongoing. In 2016, the CWPP receive a 10-year update which included a comprehensive review and revision of the CWPP maps. With the addition of a dedicated Colorado State Forest Service (CSFS) staffer in Summit County, all project maps will be filed in a consistent manner and be reflective of projects funded with taxpayer monies.



Mitigation Action: Summit County—6 Wildfire Mitigation for Critical Facilities and Infrastructure

Jurisdiction:	Summit County
Action Title:	Identify and prioritize fuel reduction projects around critical facilities and infrastructure in wildfire hazard areas.
Hazard(s) Mitigated	Wildfire
Priority:	High
Issue/Background:	Areas of high wildfire risk are located throughout the County. Damage to critical facilities and infrastructure during wildfire events can greatly increase community losses and economic impacts.
Ideas for Implementation:	Summit County will work to continue identification and prioritization of critical facilities and infrastructure located in wildfire hazard areas. This action will include mapping of these facilities and comparison with the previously identified wildfire vulnerability focus areas.
Responsible Agency:	Office of Emergency Management, and GIS Department
Partners:	Summit County Government; Towns of Breckenridge, Dillon, Frisco, and Silverthorne; and Summit Fire EMS, and Red, White, and Blue Fire Protection Districts; Summit County Wildfire Council, U.S. Department of Homeland Security Infrastructure Protection Division.
Potential Funding:	In 2018 and 2019, voters approved tax measures to continue to fund wildfire prevention strategies, driven by the SCWC's implementation of the CWPP's goals and objectives. The tax measures allocate \$500K annually, in perpetuity, and an additional \$1M per year for a ten-year period (2018 - 2027).
Cost Estimate:	Project costs are not yet known
Benefits: (Losses Avoided)	<ul style="list-style-type: none"> • Prevent loss of lifeline utility services • Protect critical facilities and infrastructure • Reduce losses related to wildland-urban interface fires
Timeline:	2021
Status:	Completed - Continuing This work was completed around schools and the hospital and is in a maintenance condition. As people continue to move into the WUI and development persists, new "critical facilities and infrastructure" warrant wildfire protection attention.



Mitigation Action: Summit County—7 DFIRM Adoption

Jurisdiction:	Summit County
Action Title:	Review and strengthen floodplain regulations when adopting new digital flood insurance rate maps (DFIRMs).
Hazard(s) Mitigated	Flood
Priority:	High
Issue/Background:	Summit County began the FEMA map modernization process in fall 2007 and preliminary DFIRMs are expected in fall 2008. The scheduled effective DFIRM date is fall 2009. Revised mapping became effective in November 2018.
Ideas for Implementation:	Once the new DFIRMs are reviewed, approved, and effective, Summit County will work with FEMA on changes needed to make the Summit County floodplain regulations compatible and in compliance with NFIP requirements and will adopt new maps.
Responsible Agency:	Summit County Engineering Department
Partners:	Colorado Water Conservation Board, FEMA
Potential Funding:	Summit County
Cost Estimate:	Staff time
Benefits: (Losses Avoided)	Reduce risk of property damage due to flood
Timeline:	November 2018
Status:	Completed. This action has been completed. Summit County will continue to comply with the NFIP and adopt new State of Colorado floodplain regulations.



Mitigation Action: Summit County—8 Incorporation into Master Plans

Jurisdiction:	Summit County
Action Title:	Incorporate information from the multi-hazard mitigation plan into community master plans.
Hazard(s) Mitigated	Multi-Hazard
Priority:	Medium
Issue/Background:	This action will help implement the plan’s overall mitigation strategy and fulfill the requirement for incorporating the plan into existing planning mechanisms described in Chapter 5 Plan Implementation and Maintenance.
Ideas for Implementation:	<p>During the updates for each of the five master plans in Summit County, the mitigation plan will be reviewed and incorporated into appropriate sections. Each of the master plans is updated every three to five years. This may involve a review of the mitigation plan’s risk assessment to incorporate appropriate data and analysis and a review of common goals and objectives between the plans.</p> <p>This action will be incorporated into staff work plans.</p>
Responsible Agency:	Summit County Planning Department
Partners:	Summit County Office of Emergency Management
Potential Funding:	Summit County
Cost Estimate:	Staff time
Benefits: (Losses Avoided)	<ul style="list-style-type: none"> • Incorporation of mitigation plan into existing planning mechanisms • Improve coordination and communication
Timeline:	Annual Implementation
Status:	In progress - ongoing. The Planning Department continually incorporates many of the Multi-Hazard Mitigation Plan principles with the updates of each master plan.



Mitigation Action: Summit County—9 Roadside Ditch Erosion

Jurisdiction:	Summit County
Action Title:	Develop protection plan for roadside ditches to reduce erosion and flooding.
Hazard(s) Mitigated	Erosion/Deposition, Flood
Priority:	Medium
Issue/Background:	Steep roadways, natural surface ditches (as opposed to storm sewer systems) and the extensive use of traction sand during winter storms lead to erosion and significant sediment deposition as a result of seasonal runoff and summer rainstorms.
Ideas for Implementation:	Where practical, divert roadside drainage to natural drainage ways to minimize flow in the roadside ditches and reduce the loss of road and shoulder materials. Also add the appropriate armoring and sediment collection areas to existing systems.
Responsible Agency:	Summit County Road and Bridge Department
Partners:	
Potential Funding:	Summit County
Cost Estimate:	Unknown but is a part of the annual maintenance budget
Benefits: (Losses Avoided)	<ul style="list-style-type: none">• Reduce damage due to erosion and flooding• Maintain safe roads
Timeline:	An ongoing maintenance issue
Status:	In Progress. This has been implemented in select locations where the problem has either been accelerated by storm events or where reconstruction projects have provided an opportunity and will continue to be implemented on future planned projects.



Mitigation Action: Summit County—10 Snake River Wastewater Treatment Plant Flood Protection

Jurisdiction:	Summit County
Action Title:	Enhance flood protection of the Snake River’s collection system to prevent potential sanitary sewer overflows or inundation of critical facilities.
Hazard(s) Mitigated	Flood
Priority:	Low
Issue/Background:	Manhole lids, specifically those with large lifting holes, in low lying areas are more prone to flooding and water inflow through these holes. This can cause sanitary sewer overflows and damage critical facilities.
Ideas for Implementation:	Replace these with manhole lids with no such openings or holes.
Responsible Agency:	Summit County, Snake River Wastewater Treatment Plant
Partners:	
Potential Funding:	Summit County
Cost Estimate:	\$1,000 total. Replacement cost for each manhole lid is approximately \$100 times 10 manhole lids.
Benefits: (Losses Avoided)	Reduce the potential for sanitary sewer overflows into the watershed and reduce the chance of impacting critical facilities and avoiding any type of emergency bypass.
Timeline:	Completed in 2008.
Status:	Completed.



Mitigation Action: Summit County—11 NFIP Public Information

Jurisdiction:	Summit County
Action Title:	Improve education and information on the National Flood Insurance Program (NFIP) and flood hazard areas in Summit County.
Hazard(s) Mitigated	Flood
Priority:	Low
Issue/Background:	The Summit County website currently does not provide specific information on floodplain areas and special regulations in the County or the National Flood Insurance Program.
Ideas for Implementation:	Expand the Engineering Department website to include links to the new digital flood insurance rate maps (DFIRMs); local, state, and federal contacts; links to floodproofing methods; and minimum requirements for building in a floodplain. This project was updated in 2013 to include gaining an understanding of the implications of the Biggert-Waters Flood Insurance Reform Act of 2012. Work with FEMA and CWCB to understand the Reform Act and provide information to the public on how this might affect insurance rates, particularly those with second homes.
Responsible Agency:	Summit County Engineering
Partners:	Summit County Information Services and GIS departments
Potential Funding:	Summit County
Cost Estimate:	Staff time
Benefits: (Losses Avoided)	Improve public awareness of flood risks and mitigation measures. Better public information reduces phone calls and improves the questions that need answers.
Timeline:	Ongoing
Status:	In progress/Ongoing. The County had a Community Assistance Visit with FEMA in Fall of 2019 and discussed plans to improve NFIP-related press releases and communication through permit processes. County will assess additional opportunities that may arise.



Mitigation Action: Summit County—12 CWPP Inclusion of Water and Utility Focused Layers

Jurisdiction:	Summit County
Action Title:	CWPP inclusion of water and utility focused layer
Hazard(s) Mitigated	Wildfire
Priority:	High
Issue/Background:	The CWPP current data layer will be expanded to include a source water protection and utility infrastructure layer. This will assist with a more comprehensive understanding of the source water and utility infrastructure which could be impacted by wildfire.
Ideas for Implementation:	Incorporate into the current CWPP and Wildfire Council work. Review Blue River Watershed Assessment Report (2011) for applicable/related information
Responsible Agency:	Summit County Wildfire Council
Partners:	Wildfire Council, OEM, GIS, USFS, CSFS
Potential Funding:	Local funds, Grants
Cost Estimate:	Staff time
Benefits: (Losses Avoided)	Create an understanding of potential impacts from wildfire in the water basins of Summit County and lead to advanced or immediate actions to lessen water quality issues.
Timeline:	Completed as part of 2016 CWPP update
Status:	Completed. Action added in 2013. Understanding the basic geography of the County is a prerequisite to developing any effective strategy to reduce wildfire risk within a community. The CWPP base map contains the following data layers: <ul style="list-style-type: none"> 1. Basin Boundaries 2. Town Boundaries 3. Private Parcel Boundaries – with Summit County Assessor data for ownership 4. White River National Forest Lands 5. Wilderness Area Boundaries 6. Streams, Lakes, and Reservoirs 7. Fire Response Zones 8. Roads and Trails Centerline 9. Aerial Imagery from September 2010 10. Dip sites for Arial Resources 11. 10M Digital Elevation Model.



Mitigation Action: Summit County—13 Prepare a Hazard Information and Action Guide

Jurisdiction:	Summit County
Action Title:	Prepare a Hazard Information and Action Guide
Hazard(s) Mitigated	Multi-Hazard
Priority:	Medium
Issue/Background:	The Summit County Hazard Mitigation Plans contains a wealth of valuable information on multiple hazards. This information could be condensed into a public information brochure to inform the public on risks and ways to mitigate them.
Ideas for Implementation:	This project would create a Summit County specific public information and action guide.
Responsible Agency:	Summit County Office of Emergency Management
Partners:	Summit County Wildfire Council, CSU Extension Office, Public Safety Agencies, and others.
Potential Funding:	Wildfire Council and grants
Cost Estimate:	\$35,000
Benefits: (Losses Avoided)	The education of the public creates awareness and empowers the public to take action to mitigate loss and risk.
Timeline:	2014
Status:	Completed. Action added in 2013



Mitigation Action: Summit County—14 Conduct Public Education and Outreach Programs

Jurisdiction:	Summit County
Action Title:	Conduct Public Education and Outreach Programs
Hazard(s) Mitigated	Multi-Hazard
Priority:	High
Issue/Background:	An informed public can help reduce hazard impacts through personal preparedness and mitigation.
Ideas for Implementation:	Conduct public education and outreach programs. Facilitate independent topic presentations based upon hazard as well as partner with other outreach groups to reach already established audiences.
Responsible Agency:	Summit County Office of Emergency Management
Partners:	Summit County Wildfire Council, CSU Extension Office, Public Safety Agencies, Healthy Forest Task Force, Rotary Club of Summit County, and others.
Potential Funding:	Wildfire Council and grants
Cost Estimate:	\$20,000
Benefits: (Losses Avoided)	The education of the public creates awareness and empowers the public to take action to mitigate loss and risk.
Timeline:	2016
Status:	Completed - Continuing. Action added in 2013



Mitigation Action: Summit County—15 Receive Storm Ready status from the National Weather Service

Jurisdiction:	Summit County
Action Title:	Receive Storm Ready status from the National Weather Service
Hazard(s) Mitigated	Multi-Hazard
Priority:	High
Issue/Background:	The County is already doing some of the necessary elements to be designated 'Storm Ready' including warning and sheltering capabilities.
Ideas for Implementation:	Review Storm Ready requirements and work with the forecast office on the requirements.
Responsible Agency:	Summit County Office of Emergency Management
Partners:	Summit County Communications Center
Potential Funding:	Not required
Cost Estimate:	N/A
Benefits: (Losses Avoided)	The review and update of the plans and procedures necessary to receive this rating will be beneficial. CRS participating communities could also earn additional credits from this designation.
Timeline:	2020-2023
Status:	Continue – not completed. Action added in 2013.



Mitigation Action: Summit County—16 Expand SCAAlert Public Warning Groups

Jurisdiction:	Summit County
Action Title:	Expand SCAAlert Public Warning Groups
Hazard(s) Mitigated	Multi-Hazard
Priority:	Medium
Issue/Background:	The SCAAlert system is one emergency notification system to the public. The system has been active for 4 years and the group structure for messages needs to be expanded.
Ideas for Implementation:	The new groups to be added need to include alternative language groups and public information groups separated from emergency message groups.
Responsible Agency:	Summit County Office of Emergency Management
Partners:	Summit County Communications Center, Summit County Public Information Officers Group; Buffalo Mountain Metro (See related action)
Potential Funding:	Not required N/A
Cost Estimate:	
Benefits: (Losses Avoided)	The relevance of the messaging system needs to be maintained in the public view. The system has over 11,000 subscribers. The updates to the system are based upon feedback on how to improve the usefulness.
Timeline:	2019
Status:	Completed. Action added in 2013. Multiple new group have been created and thousands of new subscribers have been added.



Mitigation Action: Summit County—17 Compost for Revegetation

Jurisdiction:	Summit County
Action Title:	Compost for revegetation – created by fuels reduction projects to help mitigate flood damage and erosion/deposition/water quality impacts
Hazard(s) Mitigated	Erosion/Deposition
Priority:	Medium
Issue/Background:	Erosion is a significant problem associated with wildfires, construction, and steep slopes in general. The most effective method of preventing erosion is to establish strong vegetative cover, which can be enhanced by the use of compost that is generated at the landfill using, in part, beetle-killed trees.
Ideas for Implementation:	Continue generating compost for use in revegetation projects. Regulations requiring the use of compost have been considered and may be added to the Summit County Land Use and Development Code if and where appropriate.
Responsible Agency:	Landfill
Partners:	Engineering/Planning/Road & Bridge/CDOT
Potential Funding:	n/a
Cost Estimate:	n/a
Benefits: (Losses Avoided)	Protects and enhances water quality
Timeline:	Ongoing
Status:	In progress. Action added in 2013.



Mitigation Action: Summit County—18 Property Protection and Home Construction

Jurisdiction:	Summit County
Action Title:	Wildfire, property protection, structural retrofits Non-Combustible roof replacement program
Hazard(s) Mitigated	Wildfire
Priority:	High
Issue/Background:	Wood shake-shingle roofs are a significant contributor to the loss of residential homes in wildfires that emit ember showers. This project would work with homeowners in the WUI to retrofit their roofs.
Ideas for Implementation:	Create a project when grant funds are available to assist homeowners with retrofit of roofing materials to class A non-combustible shingles.
Responsible Agency:	Summit County
Partners:	Building Inspection Office, Fire Districts
Potential Funding:	PDM Grant and local match
Cost Estimate:	\$750,000 pilot project
Benefits: (Losses Avoided)	Property protection and wildfire damage mitigation
Timeline:	2017 and 2019
Status:	Completed. Action added in 2013. In 2019, the Building Code was revised, and adopted by the BOCC, to include WUI standards and the updated IAFC defensible space zones. In 2017, the Land Use and Development Code was revised and adopted to address master plan and subdivision standards as well as materials and landscaping requirements in relation to wildfire prevention.



Mitigation Action: Summit County—19 All-Hazards Warning System

Jurisdiction:	Summit County
Action Title:	All Hazards, Emergency Services, Hazard Warning Systems Cellular Service Improvement in the Lower Blue Valley
Hazard(s) Mitigated	Multi-Hazard
Priority:	Medium
Issue/Background:	The improvement of cellular service in the Lower Blue would improve the ability to notify and have reported emergency situations in the area. The public warning of emergency situations and the public's ability to report situations to the 911 Center are benefits to this project.
Ideas for Implementation:	Work with elected leaders and citizen groups to educate Cellular providers about the service gaps in the Lower Blue Valley. Suggest elected leadership at State and Federal level bring this situation to the attention of the FCC.
Responsible Agency:	Summit County
Partners:	Fire Districts, Friends of the Lower Blue, other homeowners in the area
Potential Funding:	Awards, Grants
Cost Estimate:	Unknown
Benefits: (Losses Avoided)	Protection of life safety, improved emergency response
Timeline:	Completed in 2018
Status:	Completed. FEMA approval of IPAWS alert and warning technology approved and implemented in 2018



Mitigation Action: Summit County—20 Culvert Replacement

Jurisdiction:	Summit County
Action Title:	Culvert Replacement
Hazard(s) Mitigated:	Flood
Priority:	Low
Issue/Background:	Culverts are undersized or deteriorating causing flooding on the Straight Creek and along other County creeks.
Ideas for Implementation:	Replace culverts with clear-span structures on Straight Creek and other creeks to mitigate flood risk.
Responsible Agency:	Summit County Road and Bridge
Partners:	
Potential Funding:	Staff Time/Dept. Budget, FEMA HMA Grants
Cost Estimate:	\$300,000 - \$500,000
Benefits: (Losses Avoided)	Increased drainage and resiliency of bridge infrastructure.
Timeline:	March 2024
Status:	New in 2020



Mitigation Action: Summit County— 21 Emergency Power

Jurisdiction:	Summit County
Action Title:	Emergency Power Study and Generator Installation
Hazard(s) Mitigated	Wildfire, Severe Winter Weather, Avalanche
Priority:	High
Issue/Background:	Power outages as a result of a severe winter storm, avalanche or wildfire could lead to the closure of governmental services making it challenging to assist citizens during an emergency or after a disaster.
Ideas for Implementation:	Commission a comprehensive power study for all County owned buildings to identify scope of work to update and install adequate backup power generation.
Responsible Agency:	Summit County Facilities Maintenance Department
Partners:	
Potential Funding:	Staff Time/Dept. Budget, FEMA HMA Grants
Cost Estimate:	\$2,000,000
Benefits: (Losses Avoided)	Continuity of critical governmental services
Timeline:	March 2024
Status:	New in 2020



Mitigation Action: Summit County— 22 Emergency Shelter Enhancements

Jurisdiction:	Summit County
Action Title:	Emergency Shelter Enhancements
Hazard(s) Mitigated	Wildfire, Severe Winter Weather
Priority:	Medium
Issue/Background:	Shelters in Summit County are frequently used due to winter storm events; enhancements are needed to accommodate the increased use.
Ideas for Implementation:	Identify and implement enhancements to the primary emergency shelter at the Summit County Middle School to include showers, beds, blankets, pillows, storage rooms, laundering facilities, HEPA filters for HVAC (Heavy smoke events).
Responsible Agency:	Summit County Department of Human Services
Partners:	Red Cross
Potential Funding:	Staff time/Dep. Budget.
Cost Estimate:	\$100,000
Benefits: (Losses Avoided)	Increased community resilience
Timeline:	March 2024
Status:	New in 2020



Mitigation Action: Summit County— 23 Evacuation Route Fuel Breaks

Jurisdiction:	Summit County
Action Title:	Fuel Break Along Evacuation Routes
Hazard(s) Mitigated	Wildfire
Priority:	Medium
Issue/Background:	Fuel breaks can help mitigate wildfire spread. Having these along evacuation routes also is important for public safety.
Ideas for Implementation:	Develop additional fuel breaks along road infrastructure that is used as evacuation routes. Identify and prioritize key routes for treatment.
Responsible Agency:	Summit County Road & Bridge
Partners:	Summit County Wildfire Council, Summit County OEM, jurisdictions
Potential Funding:	Summit County Wildfire Council
Cost Estimate:	TBD depending on the length of route for treatment.
Benefits: (Losses Avoided)	Maintenance of the integrity of evacuation routes during wildfire.
Timeline:	March 2024
Status:	New in 2020



Mitigation Action: Summit County— 24 HazMat Roadway Projects

Jurisdiction:	Summit County
Action Title:	Roadway Projects to Mitigate Hazardous Materials Transportation Accidents
Hazard(s) Mitigated	Hazardous Materials
Priority:	High
Issue/Background:	This project would mitigate areas prone to motor vehicle/hazardous materials transportation accidents.
Ideas for Implementation:	Strategic guardrail placements and truck ramp detention ponds w/inverted outlets.
Responsible Agency:	Summit County Road and Bridge
Partners:	Colorado Department of Transportation; Dillon Valley District
Potential Funding:	CDOT, FHWA
Cost Estimate:	\$250,000
Benefits: (Losses Avoided)	Increased motorist and facility safety.
Timeline:	March 2024
Status:	New in 2020



Mitigation Action: Summit County— 25 Abandoned Mine Cleanup

Jurisdiction:	Summit County
Action Title:	Abandoned Mine Cleanup
Hazard(s) Mitigated	Hazardous Materials
Priority:	Medium
Issue/Background:	There is concern that a release of water from abandoned mines could contaminate local waterways.
Ideas for Implementation:	This project would identify mines with the potential for hazardous releases and prioritize them for cleanup.
Responsible Agency:	Summit County Environmental Health
Partners:	Colorado Department of Public Health and Environment. Private landowners
Potential Funding:	CDPHE, EPA
Cost Estimate:	\$1-5 Million
Benefits: (Losses Avoided)	Prevention of long-term environmental degradation and increased sustainability of the drinking water supply.
Timeline:	March 2024
Status:	New in 2020



Mitigation Action: Summit County— 26 Supply Chain Study

Jurisdiction:	Summit County
Action Title:	Supply Chain Study
Hazard(s) Mitigated	Wildfire, Severe Winter Storm
Priority:	Medium
Issue/Background:	The impact of prolonged interstate closures on critical commodities such as food, fuel, propane, etc. is a growing concern as these incidents become more frequent.
Ideas for Implementation:	Engage stakeholders to commission a study related to the supply chain of goods into Summit County. This study would identify primary and alternate routes, and potential vulnerabilities in supply of commodities.
Responsible Agency:	Summit County Office of Emergency Management
Partners:	Local business and industry
Potential Funding:	General fund
Cost Estimate:	\$40,000
Benefits: (Losses Avoided)	Increased community resilience and ability to better identify individual preparedness needs.
Timeline:	March 2024
Status:	New in 2020



Mitigation Action: Summit County— 27 Water Source Protection

Jurisdiction:	Summit County
Action Title:	Water Source Protection
Hazard(s) Mitigated	Wildfire, Hazardous Materials, Avalanche
Priority:	Low
Issue/Background:	The County’s water supply is vulnerable to multiple natural hazards including avalanche, rock/mud slides as well as hazardous material incidents on major highways.
Ideas for Implementation:	Water Source protection upgrades to prevent impact from to the water supply due to hazmat, avalanche, rock/mud slides along Hwy 91, I-70 (Ten Mile Canyon, Officers Gulch).
Responsible Agency:	Summit County Public Works
Partners:	Summit County Environmental Health
Potential Funding:	Summit County Capital Improvement Plan, EPA
Cost Estimate:	\$100,000 – 1 million
Benefits: (Losses Avoided)	Increased sustainability of critical water supply.
Timeline:	March 2024
Status:	New in 2020

