

## ANNEX M: HAMILTON CREEK METROPOLITAN DISTRICT

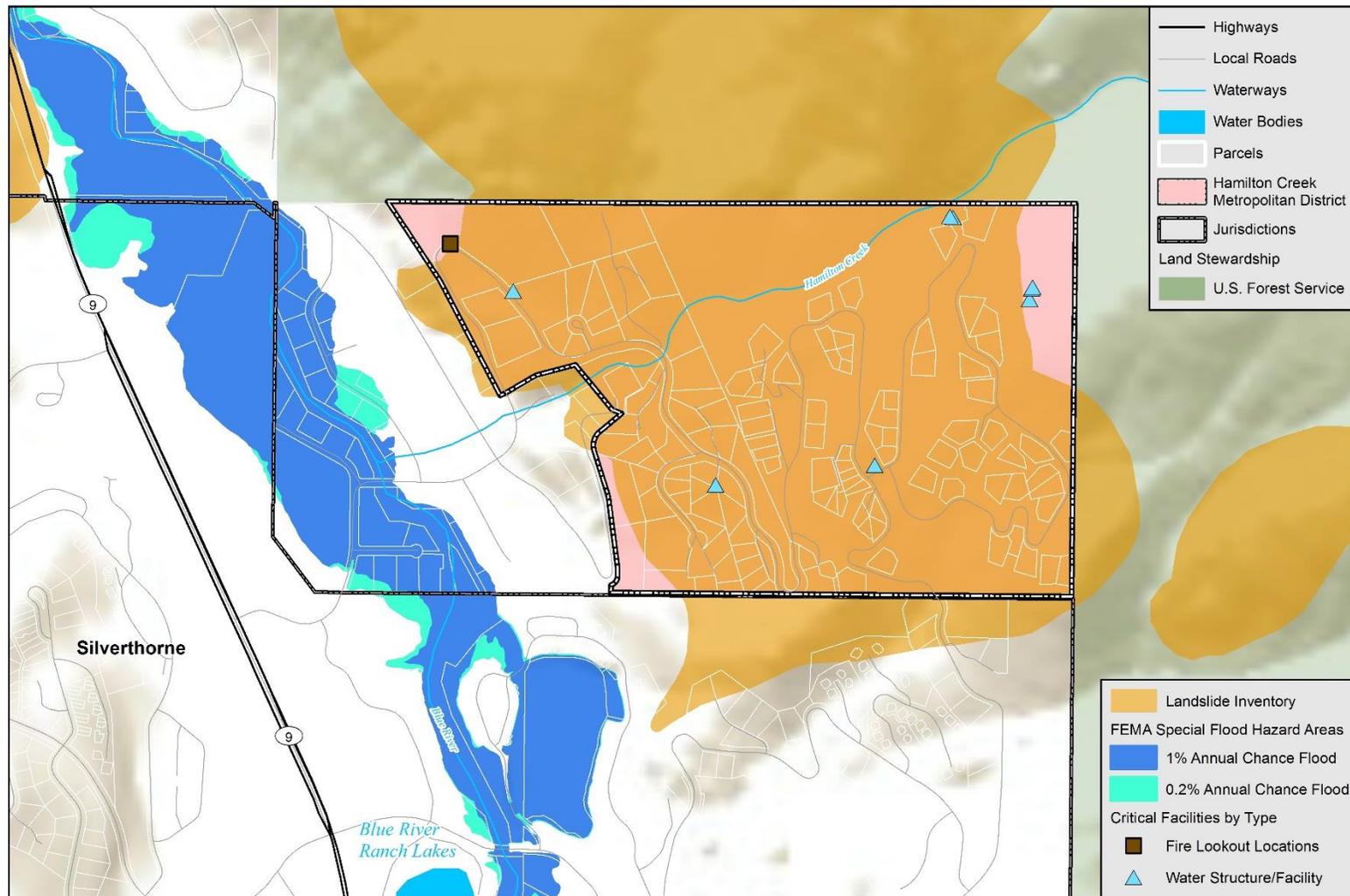
### M.1 Community Profile

Hamilton Creek Metropolitan District (HCMD) is a special district in Summit County, located just north of Silverthorne. The District operates under the direction of a five-person, elected Board of Directors. The Board sets policy decisions, which are carried out by HCMD staff. Other staff members include an administrator, auditor, attorney, and water operator.

Figure M-1 shows the location of the Hamilton Creek Metropolitan District as well as all available local hazards. One critical facility is located within the district boundaries.



**Figure M-1 Hamilton Creek Metropolitan District and Local Hazards**



**wood.**

Map compiled 2/2020;  
intended for planning purposes only.  
Data Source: US Census TIGER Database,  
CO Open Data Portal, CO BLM, Summit County,  
ESRI World Terrain Basemap, FEMA NFHL,  
CGS, CO DOLA/Demography Office.

0 0.25 0.5 Miles



## M.2 Hazard Identification and Profiles

Representatives of HCMD identified the hazards that affect the District and summarized their geographic location, probability of future occurrence, potential magnitude or severity, and planning significance specific to the Town (see Table M-1). In the context of the countywide planning area, there are no hazards that are unique to HCMD.

**Table M-1 HCMD—Hazard Summary**

Hazard Type	Geographic Location	Probability of Future Occurrence	Magnitude/Severity	Overall Hazard Rating
Avalanche	Isolated	Unlikely	Negligible	Low
Dam Incidents	Isolated	Unlikely	Negligible	Low
Drought	Large	Likely	Negligible	Medium
Earthquake	Isolated	Occasional	Limited	Low
Erosion/Deposition	Isolated	Unlikely	Negligible	Low
Flood	Isolated	Unlikely	Negligible	Low
Hazardous Materials Release (Transportation)	Isolated	Unlikely	Negligible	Low
Landslide, Mudflow/Debris Flow, Rockfall	Large	Occasional	Limited	Medium
Lightning	Isolated	Highly Likely	Negligible	Low
Pest Infestation (Forest and Aquatic)	Large	Highly Likely	Limited	Medium
Severe Winter Weather	Large	Likely	Limited	Low
Wildfire	Large	Occasional	Critical	High
Wildlife-Vehicle Collisions	Small	Likely	Negligible	Low
Windstorm	Large	Likely	Limited	Low

Note: See Section 3.2 of the HIRA document for definitions of these hazard categories.

Information on past events for each hazard can be found in Section 3.2 Hazard Profiles in the body of this document.

## M.3 Vulnerability Assessment

The intent of this section is to assess Hamilton Creek Metropolitan District’s vulnerability separate from that of the planning area (i.e. Summit County) as a whole, which has already been assessed in Section 3.3 Vulnerability Assessment of the main plan. This vulnerability assessment analyzes the population, property, critical facilities, and other assets at risk for the more significant hazards or where available data permits a more in-depth analysis. For more information about how hazards affect the County as a whole, see Chapter 3 Risk Assessment of the Base Plan.

### District Asset Inventory

Table M-2 shows the total number of improved parcels, properties, and their improvement and content values for the District. Note that only those parcels with improvement values greater than \$0, or those which were classified as “exempt,” were accounted here and in vulnerability assessments to follow, so that those non-developed or non-improved parcels were left out for the purposes of conducting the vulnerability assessments in this annex. Counts and values are based on the latest county assessor’s data



(as of November 2019), which was provided in GIS format. Contents exposure values were estimated as a percent of the improvement value here and under the hazard vulnerability assessment, specifically: 50% of the improvement value for Residential structures, and 0% for Exempt parcels. These percentage calculations are based on standard FEMA Hazus methodologies. Finally, Total Values were aggregated by adding the improvement and content values for each parcel type category.

**Table M-2 HCMD—Property Exposure**

Parcel Type	Total Properties	Improved Value	Content Value	Total Value
Exempt	10	\$0	--	\$0
Residential	105	\$86,641,283	\$43,320,642	\$129,961,925
<b>TOTAL</b>	<b>115</b>	<b>\$86,641,283</b>	<b>\$43,320,642</b>	<b>\$129,961,925</b>

Source: Summit County Assessor Data, DOLA, November 2019

Table M-3 lists the critical facility location in the District that is important to protect in the event of a disaster. For additional information on the definitions behind each critical facility category, source, and other details refer to Section 3.3.2 of the Base Plan.

**Table M-3 HCMD—Critical Facilities and Other Community Assets**

FEMA Lifeline	Critical Facility Type	Total
Safety and Security	Fire Lookout Locations	1
	Water Structure	7
Food/Water/Shelter	Water Treatment Plant	1
	<b>TOTAL</b>	<b>9</b>

Sources: Summit County, HIFLD, DOLA, Wood Analysis

## Vulnerability by Hazard

This vulnerability section analyzes existing and potential future risk to hazards deemed significant for the District or to detail how the hazard varies from the planning area. These hazards include Landslide, and Wildfire. Hazards available for mapping are represented in Figure M-1.

**Table M-4 HCMD Properties Vulnerable to 1% and 0.2% Annual Chance Flood Events**

Flood Risk	Parcel Type	Total Properties	Improved Value	Content Value	Total Value	Loss Estimate (25% Total Value)	Population
100-year	Residential	13	\$6,201,633	\$3,100,817	\$9,302,450	\$2,325,612	40
500-year	Residential	2	\$569,582	\$284,791	\$854,373	\$213,593	6
<b>GRAND TOTAL</b>		<b>15</b>	<b>\$6,771,215</b>	<b>\$3,385,608</b>	<b>\$10,156,823</b>	<b>\$2,539,206</b>	<b>47</b>

Source: Summit County GIS/Assessor Office, DOLA, FEMA NFHL, U.S. Census, Wood analysis



## Landslide, Mud Flow/Debris Flow, Rockfall

There are 113 properties exposed to identified landslide areas in the District, with a potential of 322 people and over \$128 million of property values exposed, as summarized in Table M-5. A total of 5 District critical facilities are found in known landslide areas. These include the following:

- PRV Vault on Hamilton and Lakeview
- Dry well on Hamilton Creek Rd
- PRV Vault on Stormwatch Circle
- Well House
- Water Treatment Plant on Lakeview Circle

**Table M-5 Property Exposure to General Landslide Hazard Areas in HCMD**

Parcel Type	Total Properties	Improved Value	Content Value	Total Value	Population
Exempt	9	\$0	--	\$0	--
Residential	104	\$85,775,341	\$42,887,671	\$128,663,012	322
<b>TOTAL</b>	<b>113</b>	<b>\$85,775,341</b>	<b>\$42,887,671</b>	<b>\$128,663,012</b>	<b>322</b>

Source: Summit County GIS/Assessor Office, DOLA, CGS, U.S. Census, Wood analysis

## Wildfire

### *General Property, People, and Critical Facilities/Infrastructure*

Wildfire threat was estimated from the County's Wildfire Protection Assessment Rating layer, which breaks up areas into Low, Medium, High, and Extreme ratings. This wildfire layer was used in GIS to determine the number, type, and improvement values for properties found to overlap with them, and hence estimate potential property risk to wildfire threat in the Hamilton Creek Metropolitan District. For the purposes of this analysis, the wildfire zone that intersected a parcel centroid was assigned as the threat zone for the entire parcel. Improvement values were then summed by wildfire rating area and then sorted by parcel type. Property improvements and content values were then totaled to arrive at the Total Value column, which is also the estimated value at risk based on FEMA loss curve standards for wildfire hazards.

Based on the methodology described for wildfire in Section 3.3.3 Vulnerability by Hazard of the Base Plan, and summarized for the District in Table M-6, all properties at risk of fire hazards are found in Medium or High rated protection assessment zones in the District. There are 4 properties falling in the High threat category with over \$5.9 million of property value exposed, most being Residential. A total of 85 properties are located in Medium threat categories, with over \$91.8 million in total property values exposed, with most also being Residential properties.



**Table M-6 Property Exposure to Wildfire Areas in HCMD**

Wildfire Risk	Parcel Type	Total Properties	Improved Value	Content Value	Total Value and Loss Estimate	Population
High	Residential I	4	\$3,934,715	\$1,967,358	\$5,902,073	12
	<b>TOTAL</b>	<b>4</b>	<b>\$3,934,715</b>	<b>\$1,967,358</b>	<b>\$5,902,073</b>	<b>12</b>
Medium	Exempt	8	\$0	--	\$0	--
	Residential I	77	\$61,249,724	\$30,624,862	\$91,874,586	239
	<b>TOTAL</b>	<b>85</b>	<b>\$61,249,724</b>	<b>\$30,624,862</b>	<b>\$91,874,586</b>	<b>239</b>
<b>GRAND TOTAL</b>		<b>89</b>	<b>\$65,184,439</b>	<b>\$32,592,220</b>	<b>\$97,776,659</b>	<b>251</b>

Source: Summit County GIS/Assessor's Data, DOLA, CO-WRAP, U.S. Census, Wood analysis

A total of 4 critical facilities identified in Table M-3 (and listed below) are found in areas rated as Medium under the Wildfire Protection Assessment ranking. The other 5 critical facilities to the District are located in Low vulnerability areas.

- Fire Lookout Location on Hamilton Creek Rd, West
- PRV Vault on Stormwatch Circle (water structure)
- Dry Well on Hamilton Creek Rd (water structure)
- PRV Vault on Hamilton and Lakeview (water structure)

Summit Fire EMS Authority (SFE) provides fire protection services to HCMD. SFE is considered an initial attack center for wildland fires on all private land and takes a joint responsibility with the U.S. Forest Service for fires on federal land.

***Future Development***

Residential development continues to occur in the wildland-urban interface where limited access, lack of a central water supply with fire hydrants, and longer response times elevate the risk associated with a wildfire event. Development in wildland-urban interface areas is regulated through the building code and land use planning policies of the jurisdiction in which the development is located. Summit County and Silverthorne have wildfire mitigation policies as a part of their county or municipal code.

**Growth and Development Trends**

The HMPC did not note any growth and development concerns with respect to hazards during the 2020 plan update.

**M.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

Regulatory mitigation capabilities include the planning and land management tools typically used by local jurisdictions to implement hazard mitigation activities. The District is governed under the policies and programs of Summit County, including its building codes and land use planning. Table M-7 lists planning and land management tools typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in HCMD.

**Table M-7 HCMD—Regulatory Mitigation Capabilities**

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
General or Comprehensive plan	No	
Zoning ordinance	No	
Subdivision ordinance	Yes	
Growth management ordinance	No	
Floodplain ordinance	No	
Other special purpose ordinance (stormwater, steep slope, wildfire)	No	
Building code	No	
Fire department ISO rating	No	
Erosion or sediment control program	No	
Stormwater management program	No	
Site plan review requirements	Yes	
Capital improvements plan	Yes	
Economic development plan	No	
Local emergency operations plan	No	
Other special plans	Yes	Source Water Protection Plan
Flood insurance study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	
Other	No	

## Administrative/Technical Mitigation Capabilities

Table M-8 identifies the personnel responsible for activities related to mitigation and loss prevention in HCMD.



**Table M-8 HCMD—Administrative and Technical Mitigation Capabilities**

Personnel Resources	Yes/No	Comments
Planner/engineer with knowledge of land development/land management practices	No	
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Contracted
Planner/engineer/scientist with an understanding of natural hazards	Yes	Contracted
Personnel skilled in GIS	Yes	Contracted
Full time building official	No	
Floodplain manager	N/A	
Emergency manager	No	
Grant writer	No	
Other personnel	No	
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Contracted
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	No	
Other	No	

## Fiscal Mitigation Capabilities

Fiscal mitigation capabilities are financial tools or resources that HCMD could or already does use to help fund mitigation activities. The HMPC noted that Capital Reserves can be used to fund District mitigation activities and projects.

## Mitigation Outreach and Partnerships

The HCMD uses District meetings and newsletters to send information to the public related to hazards such as wildfire, drought as well as give the public information related to evacuation routes.

## Past Mitigation Efforts

Past mitigation efforts have included fuel reduction to mitigate wildfire risk and the use of alternate water sources to help lessen the impacts of drought.

## Opportunities for Enhancement

Based on the capability assessment, the HCMD has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the District to expand or improve on these policies and programs to further protect the community. Future improvements may include providing training for



staff members related to hazards or hazard mitigation grant funding in partnership with the County and Colorado's DHSEM. Additional training opportunities will help to inform District staff and board members on how best to integrate hazard information and mitigation projects into the District policies and ongoing duties of the District. Continuing to train District staff on mitigation and the hazards that pose a risk to the District will lead to more informed staff members who can better communicate this information to the public.

## M.5 Mitigation Goals and Objectives

HCMD has adopted the hazard mitigation goals and objectives developed by the HMPC and described in Chapter 4 Mitigation Strategy.

## M.6 Mitigation Actions

HCMD identified and prioritized the following mitigation actions based on the risk assessment. Background 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.



## Mitigation Action: HCMD—1 Backup Power Connection

<b>Jurisdiction:</b>	Hamilton Creek Metropolitan District
<b>Action Title:</b>	Backup power connection for treatment plant
<b>Hazard(s) Mitigated</b>	Multi-Hazard
<b>Priority:</b>	High
<b>Issue/Background:</b>	Long term power outages have the potential to disrupt water treatment and supply. This project would entail the installation of a connection to temporary backup power for the treatment plant to maintain water production.
<b>Ideas for Implementation:</b>	A roll-up generator is being considered for purchase outside of this project that could be used as a countywide resource when and where needed.
<b>Responsible Agency:</b>	Hamilton Creek Metropolitan District
<b>Partners:</b>	Town of Silverthorne, Summit County, East Dillon Water District, Mesa Cortina Water & Sanitation District, Dillon Valley District, Snake River Water District
<b>Potential Funding:</b>	District operations and outside grants.
<b>Cost Estimate:</b>	\$100,000
<b>Benefits: (Losses Avoided)</b>	Provide water to full time residents in the event of a long-term power outage. Reduce losses due to service interruption.
<b>Timeline:</b>	5 years
<b>Status:</b>	Ongoing. In planning stages and will be included in the Districts Capital Improvement Plan update. Action added in 2013.



## Mitigation Action: HCMD—2 Water Supply Interconnect

<b>Jurisdiction:</b>	Hamilton Creek Metropolitan District
<b>Action Title:</b>	Water Supply Interconnect
<b>Hazard(s) Mitigated</b>	Multi-Hazard
<b>Priority:</b>	High
<b>Issue/Background:</b>	This project would develop an interconnection with the Town of Silverthorne as an alternate water supply in case of extended drought, contamination of the water source, or long-term power outage.
<b>Ideas for Implementation:</b>	The engineering on this action is finished and the project is 'shovel ready.' Funding is needed for construction to implement the action.
<b>Responsible Agency:</b>	Hamilton Creek Metropolitan District
<b>Partners:</b>	Town of Silverthorne, Summit County
<b>Potential Funding:</b>	District operations and outside grants.
<b>Cost Estimate:</b>	\$200,000
<b>Benefits: (Losses Avoided)</b>	Provide water to full time residents in the event of a long-term power outage or other water shortage. Reduce losses due to service interruption.
<b>Timeline:</b>	5 years
<b>Status:</b>	Continue – Not Completed. Included in the District's Capital Improvement Plan. District will need to negotiate with the Town of Silverthorne. Action added in 2013.



## Mitigation Action: HCMD—3 Wildfire Mitigation Efforts

<b>Jurisdiction:</b>	Hamilton Creek Metropolitan District
<b>Action Title:</b>	Maintain existing wildfire mitigation efforts
<b>Hazard(s) Mitigated</b>	Wildfire
<b>Priority:</b>	High
<b>Issue/Background:</b>	HCMD has done defensible space projects since 2000 in all areas of the 200-acre subdivision. This project would continue the mitigation benefits accomplished by these projects through continued maintenance of these sites including removal of ladder fuels, mowing of brush, and FireWise landscaping techniques.
<b>Ideas for Implementation:</b>	Coordination of ownership cleanup activities and slash pick up.
<b>Responsible Agency:</b>	Hamilton Creek Metropolitan District
<b>Partners:</b>	Town of Silverthorne, Summit County
<b>Potential Funding:</b>	District operations and outside grants.
<b>Cost Estimate:</b>	\$12,000 annually
<b>Benefits: (Losses Avoided)</b>	Reduce impacts to the water plant and water intake area from wildfires. Protection of single-family residents in the subdivision.
<b>Timeline:</b>	5 years
<b>Status:</b>	Continue-Not Completed. Action added in 2013.



## Mitigation Action: HCMD—4 Public Education and Outreach

<b>Jurisdiction:</b>	Hamilton Creek Metropolitan District
<b>Action Title:</b>	Continue education and outreach about water conservation
<b>Hazard(s) Mitigated</b>	Multi-Hazard
<b>Priority:</b>	High
<b>Issue/Background:</b>	HCMD has existing conservation programs in place. The District has electronic meters with readings every four hours on all properties. The District water rate structure is escalating to encourage water conservation.
<b>Ideas for Implementation:</b>	This project would continue existing education and outreach. Water conservation is communicated to the ownership annually and additional information can be provided at annual meetings and with quarterly billings.
<b>Responsible Agency:</b>	Hamilton Creek Metropolitan District
<b>Partners:</b>	Town of Silverthorne, Summit County
<b>Potential Funding:</b>	District operations and outside grants.
<b>Cost Estimate:</b>	\$2,500 annually
<b>Benefits: (Losses Avoided)</b>	Reducing demands through water conservation can lead to extended water supplies during times of drought or extended power outages.
<b>Timeline:</b>	5 years
<b>Status:</b>	Completed –Continuing. Electronic water meters installed in 2009. District is continuing education and outreach efforts.



## Mitigation Action: HCMD—5 Develop Source Water Protection Plan

<b>Jurisdiction:</b>	Hamilton Creek Metropolitan District
<b>Action Title:</b>	Develop Source Water Protection Plan (SWPP)
<b>Hazard(s) Mitigated</b>	Multi-Hazard
<b>Priority:</b>	High
<b>Issue/Background:</b>	The program would encourage community-based protection and non-regulatory preventive management strategies to ensure that all Districts' drinking water resources are kept safe from future contamination.
<b>Ideas for Implementation:</b>	Delineate the source water protection area, inventory potential sources of contamination, develop best management practices and implement protection measures. Work with CO Rural Water Association on the completion of the SWPP.
<b>Responsible Agency:</b>	Hamilton Creek Metropolitan District
<b>Partners:</b>	CO Rural Water Association; Town of Silverthorne, Summit County;
<b>Potential Funding:</b>	CO Department of Public Health and Environment's SWAP Development and Implementation Grant.
<b>Cost Estimate:</b>	\$50,000
<b>Benefits: (Losses Avoided)</b>	Provide protection of water resources from hazard impacts.
<b>Timeline:</b>	1-3 years
<b>Status:</b>	Continue-Not Completed. The SWAP Grant has been completed, SWPP is still in process of being developed. Action added in 2013



## Mitigation Action: HCMD—6 Hydrologic Monitoring

<b>Jurisdiction:</b>	Hamilton Creek
<b>Action Title:</b>	Hydrologic Monitoring
<b>Hazard(s) Mitigated</b>	Drought
<b>Priority:</b>	Low
<b>Issue/Background:</b>	Drought is a gradual phenomenon, often occurring slowly, over a multi-year period and is often not obvious to quantify when a drought event begins and ends. Drought impacts are wide-reaching and may be economic, environmental, and/or societal.
<b>Ideas for Implementation:</b>	Install and maintain stream flow gauges to develop historical data for understanding localized drought status.
<b>Responsible Agency:</b>	Hamilton Creek Metropolitan District
<b>Partners:</b>	Summit County
<b>Potential Funding:</b>	CWCB, FEMA HMA Grants
<b>Cost Estimate:</b>	\$5,000 initial installation, \$2,000 annual maintenance
<b>Benefits: (Losses Avoided)</b>	Drought preparation and public awareness
<b>Timeline:</b>	Ongoing
<b>Status:</b>	New in 2020



## M.7 Implementation and Maintenance

Moving forward, the District will use the mitigation action worksheets in the previous section to track progress on implementation of each project. Implementation of the plan overall is discussed in Chapter 5 in the Base Plan.

### Incorporation into Existing Planning Mechanisms

The information contained within this plan, including results from the Vulnerability Assessment and the Mitigation Strategy, will be used by the Metropolitan District to help inform updates and the development of District plans, programs and policies.

### Integration of 2013 Plan into Other Planning Mechanisms

Using the risk information from the 2013 plan the District updated its Capital Improvement Plan to include mitigation projects such as backup power supply and interconnectedness into the CIP update.

### Process Moving Forward

Moving forward, the Metropolitan District may use vulnerability information to help inform updates and understanding of the hazards that pose a risk and the specific vulnerabilities to the jurisdiction in future capital improvement planning for the District. The County Planning and Building Department may utilize the hazard information when reviewing a site plan or other type of development applications with the boundaries of the Hamilton Creek Metropolitan District area.

As noted in Chapter 5 Plan Maintenance, the HMPC representatives from the Hamilton Creek Metropolitan District will report on efforts to integrate the hazard mitigation plan into local plans, programs and policies and will report on these efforts at the annual HMPC plan review meeting.

### Monitoring, Evaluation and Updating the Plan

The Hamilton Creek Metropolitan District will follow the procedures to monitor, review, and update this plan in accordance with Summit County as outlined in Chapter 5 of the Base Plan. The District will continue to involve the public in mitigation, as described in Section 5.4 of the Base Plan. The District Manager will be responsible for representing the District in the County HMPC, and for coordination with County staff and departments during plan updates. The Hamilton Creek Metropolitan District realizes it is important to review the plan regularly and update it every five years in accordance with the Disaster Mitigation Act Requirements.

