

ANNEX L: WATER AND SANITATION DISTRICTS

L.1 Community Profile

The following water and water & sanitation districts participated in the 2020 update process for the Summit County Multi-Hazard Mitigation Plan:

- Dillon Valley District
- East Dillon Water District
- Mesa Cortina Water and Sanitation District, and
- Snake River Water District.

Dillon Valley is a Metropolitan District that provides water and sanitation services.

Figure L-1, Figure L-2, Figure L-3, and Figure L-4 show the location of the districts listed above (in that order) as well as all available local hazards. Critical facilities found within each of the district boundaries are also included.



Figure L-1 **Dillon Valley District and Local Hazards**

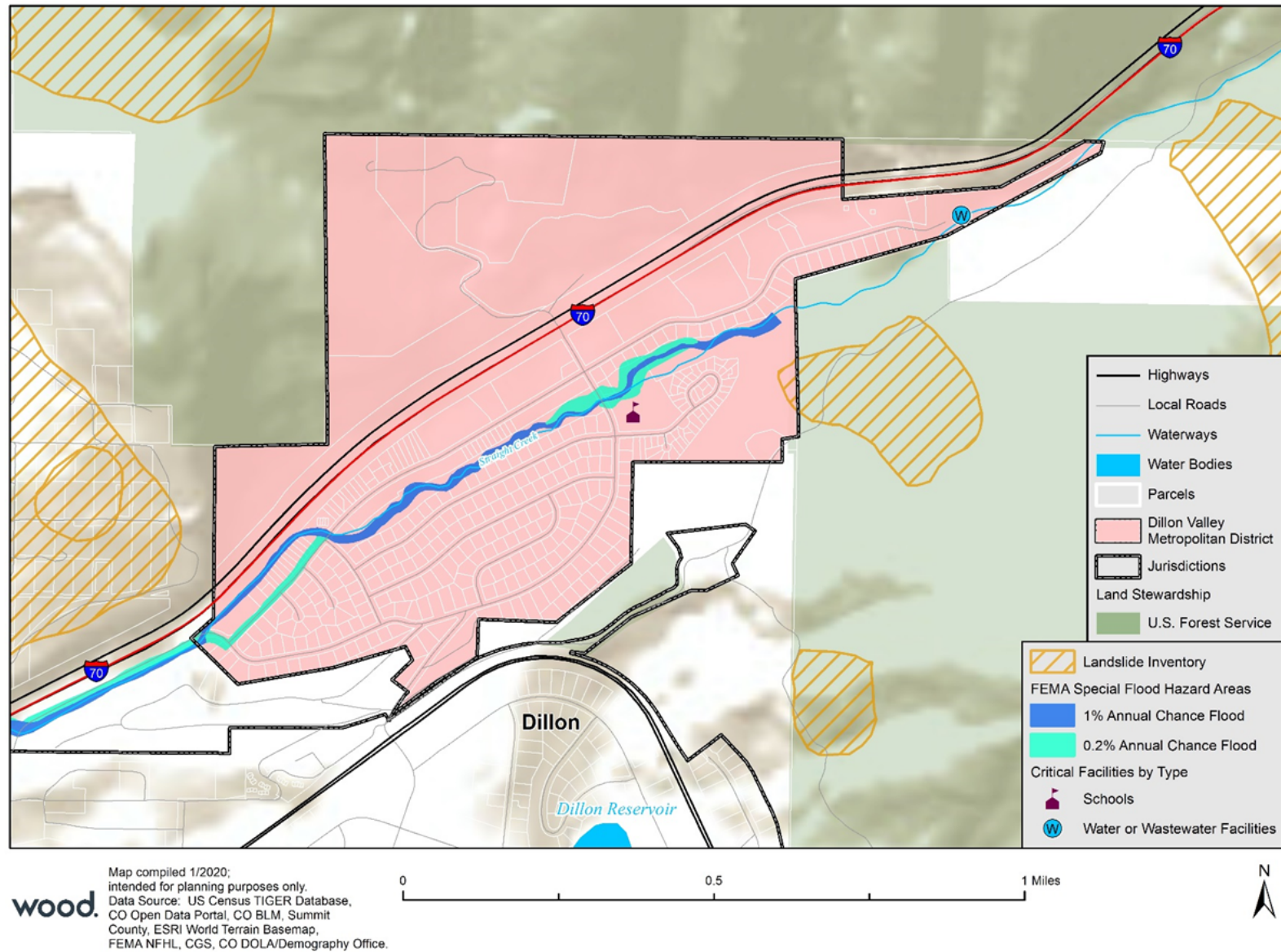
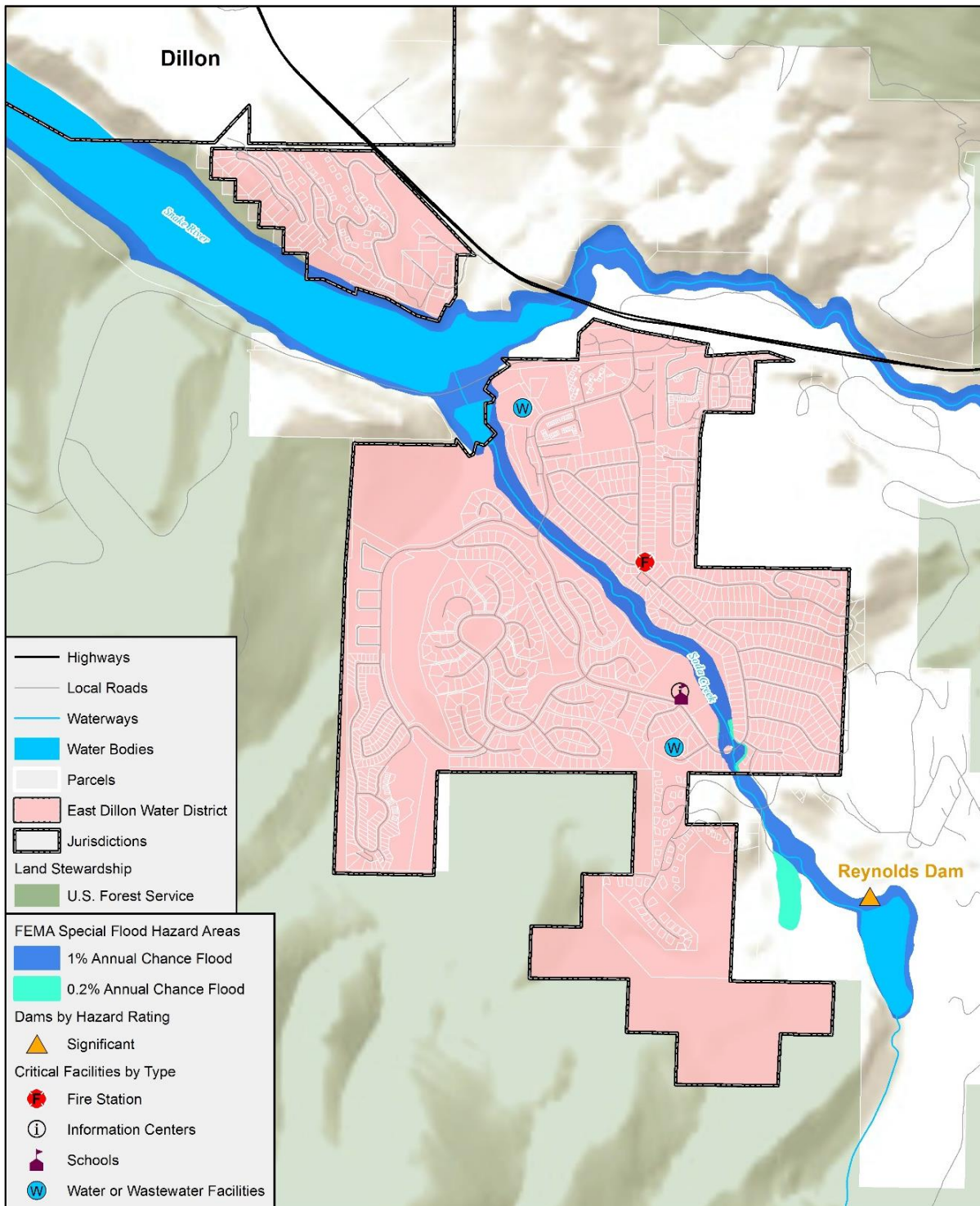


Figure L-2 East Dillon Water District and Local Hazards



wood.
Map compiled 1/2020;
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, HIFLD,
NID 2018, CO DOLA/Demography Office.

0 0.5 1 Miles



Figure L-3 Mesa Cortina Water and Sanitation District and Local Hazards

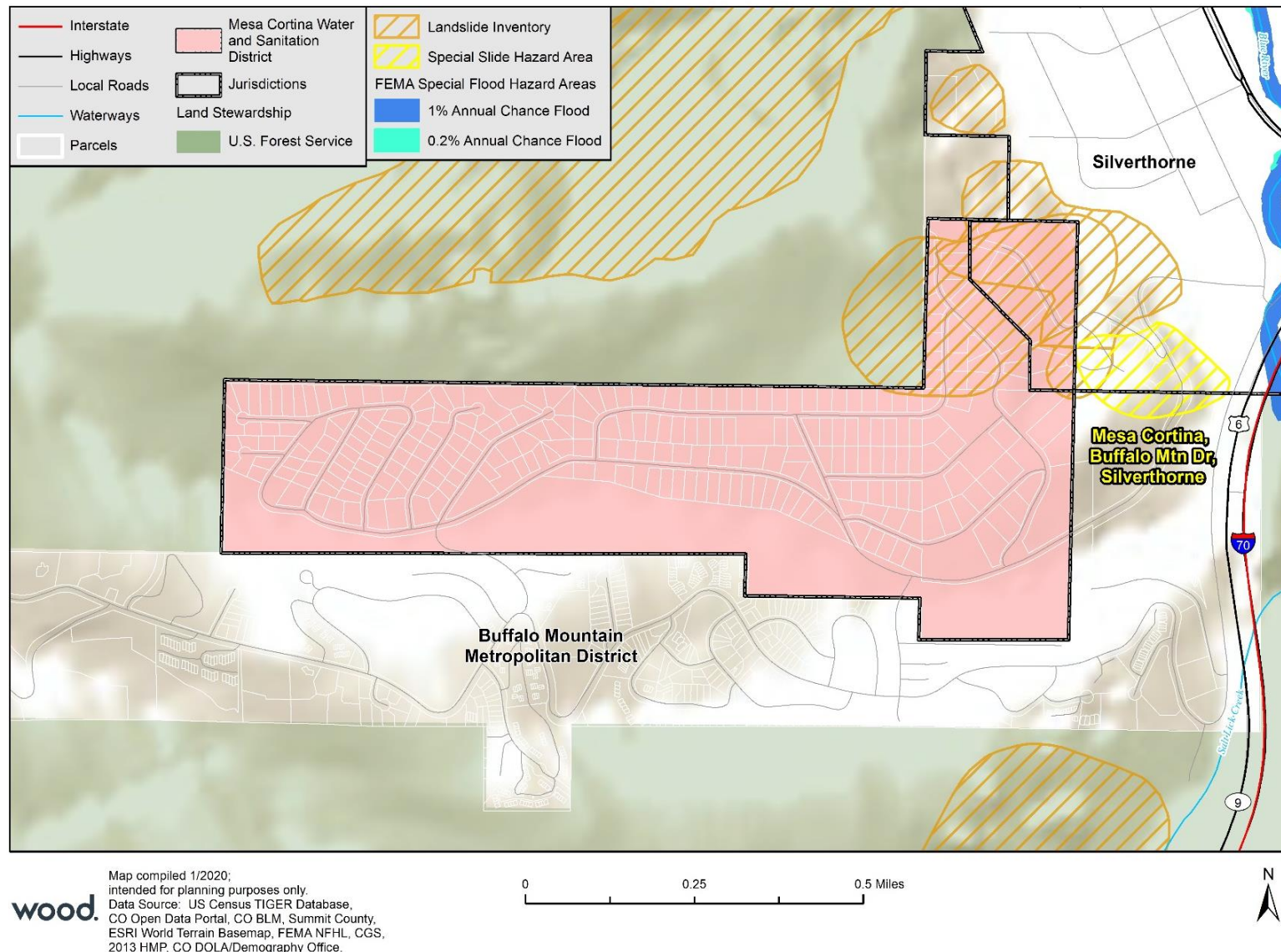
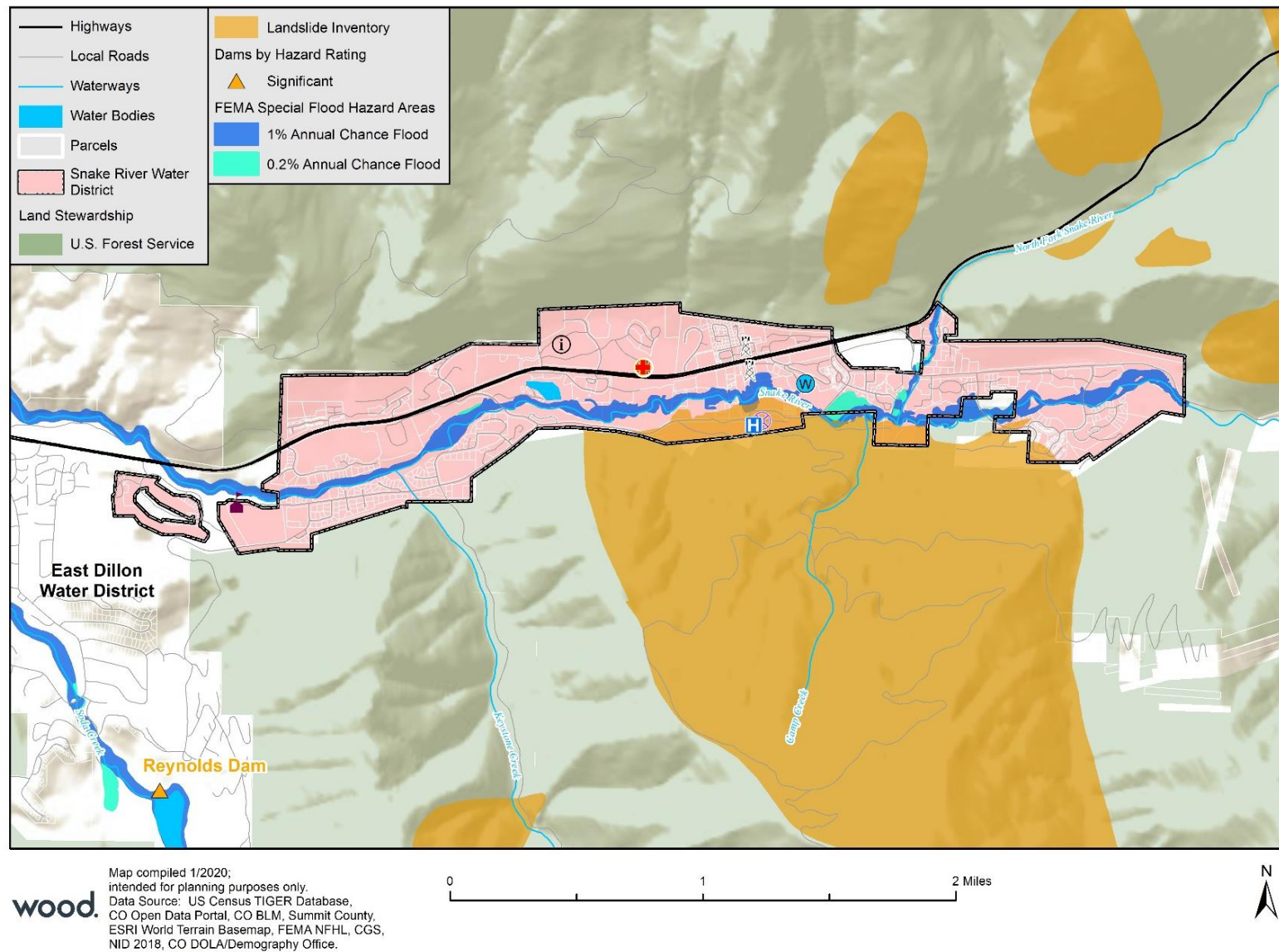


Figure L-4 Snake River Water District and Local Hazards



L.2 Hazard Identification and Profiles

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

Table L-1 Water and Water & Sanitation Districts—Hazard Summary

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



Hazard Type	Geographic Location	Probability of Future Occurrence	Magnitude/Severity	Overall Hazard Rating
Dam Incidents	Isolated	Unlikely	Limited	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	Isolated	Unlikely	Negligible	Low
Lightning	Isolated	Highly Likely	Negligible	Low
Pest Infestation (Forest and Aquatic)	Large	Likely	Limited	Low
Severe Winter Weather	Large	Likely	Negligible	Low
Wildfire	Large	Occasional	Critical	High
Wildlife-Vehicle Collisions	Small	Likely	Negligible	Low
Windstorm	Large	Likely	Limited	Low
Snake River Water District				
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	Small	Likely	Limited	Medium
Hazardous Materials Release (Transportation)	Isolated	Likely	Critical	High
Landslide, Mudflow/Debris Flow, Rockfall	Isolated	Likely	Critical	Medium
Lightning	Isolated	Highly Likely	Negligible	Low
Pest Infestation (Forest and Aquatic)	Large	Highly Likely	Limited	Medium
Severe Winter Weather	Large	Likely	Negligible	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 of the main plan.

L.3 Vulnerability Assessment

The intent of this section is to assess the water and water & sanitation districts' vulnerability separately from that of the planning area as a whole, which has already been addressed in Section 3.3 Vulnerability Assessment in 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

A parcel exposure summary of the properties across Summit County has been included in the main Hazard Identification and Risk Assessment (HIRA) document of this plan.

Table L-2 lists critical facilities and infrastructure assets identified by each district as important to protect in the event of a disaster.

Table L-2 Water and Water & Sanitation Districts—Critical Facilities and Other Community Assets

Special District	FEMA Lifeline	Critical Facility Type	Total
Dillon Valley District	Food/Water/Shelter	Wastewater Facilities	1
	Other/Schools	Schools	1
	TOTAL		2
East Dillon Water District	Communications	Information Centers	1
	Food/Water/Shelter	Water Treatment/Wastewater Facilities	2
	Other/Schools	Schools	1
	Safety and Security	Fire Station	1
	TOTAL		5
Mesa Cortina Water and Sanitation District	n/a	n/a	0
	TOTAL		0
Snake River Water District	Communications	Communications/Cell Towers	2
		Information Centers	1
		Public Safety Transmitters	1
	Food/Water/Shelter	Wastewater Facilities	1
	Health and Medical	Ambulance Stations	1
		Medical Facilities	1
	Other/Schools	Schools	1
	Safety and Security	Fire Station	1
	Transportation	Helipads	1
TOTAL			10
GRAND TOTAL			17

Sources: Summit County, DOLA, HIFLD.

Vulnerability by Hazard

This vulnerability section analyzes existing and potential future risk in more detail where the risk varies from the rest of the planning area. Vulnerability details for the following bulleted hazards are often difficult to compile or estimate for specific jurisdictions and are already described in the Section 3.3.3 of the Base Plan. Figure L-1, Figure L-2, Figure L-3, and Figure L-4 represent all available mappable hazards in the profiled districts within this annex.

- Avalanche
- Dam Inundation
- Drought
- Earthquake



- Erosion/Deposition
- Flood
- Hazardous Materials Release (Transportation)
- Lightning
- Pest Infestation (Forest and Aquatic)
- Severe Winter Weather
- Wildlife-Vehicle Collisions
- Windstorm

Therefore, only the following two hazards will be described in more detail herein:
Landslide/Mudflow/Debris Flow/Rockfall, and Wildfire.

Landslide, Mudflow/Debris Flow, Rockfall

There are 2 Critical Facilities at risk of landslides in the Snake River Water District. These are listed below:

- Heath and Medical Facility (Keystone Mountain Clinic)
- Transportation Facility (Keystone Mountain Helipad)

Wildfire

Existing Development

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 critical facilities at risk to wildfire threat in the Water and Sanitation Districts discussed herein. Table L-3 summarizes the critical facilities located within the water and sanitation district boundaries that are at risk of wildfire. All are found in Medium rank wildfire protection assessment areas.

Table L-3 Critical Facilities at Risk of Medium Threat Wildfire, by District

Special District	FEMA Lifeline	Critical Facility Type	Total
Dillon Valley Metro District	Other/Schools	Schools	1
TOTAL			1
East Dillon Water District	Safety and Security	Fire Station	1
	Food/Water/Shelter	Wastewater Facilities	1
TOTAL			2
Mesa Cortina Water and Sanitation District	n/a	n/a	0
TOTAL			0
Snake River Water District	Safety and Security	Fire Station	1
	Communications	Communications/Cell Towers	1
		Information Centers	1
		Public Safety Transmitters	1
	Food/Water/Shelter	Wastewater Facilities	1
	Health and Medical	Ambulance Stations	1
		Medical Facilities	1
	Other/Schools	Schools	1
TOTAL			8
GRAND TOTAL			11

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



Future Development

Residential development continues to occur in the wildland-urban interface (WUI) 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 has wildfire mitigation policies as a part of their county code.

Growth and Development Trends

Mesa Cortina has 249 platted lots of which 219 are currently developed.

L.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 water and water & sanitation districts are governed under the policies and programs of Summit County or the Towns (if the district falls within town boundaries), including their building codes and land use planning. Table L-4 through Table L-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 the districts.

Table L-4 Dillon Valley District—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	Yes	
Fire department ISO rating	N/A	
Erosion or sediment control program	No	
Stormwater management program	No	
Site plan review requirements	Yes	



Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
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	

Table L-5 East Dillon Water District—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	Yes	
Fire department ISO rating	N/A	
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	Yes	
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	



Table L-6 Mesa Cortina Water and Sanitation District—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	N/A	
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	

Table L-7 Snake River Water District—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	Yes	
Fire department ISO rating	N/A	



Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
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 L-8 through Table L-11 identify the personnel responsible for activities related to mitigation and loss prevention in the districts.

Table L-8 Dillon Valley District—Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position	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	No		
Emergency manager	No		
Grant writer	No		
Other personnel	No		
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	No		
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	No		



Personnel Resources	Yes/No	Department/Position	Comments
Other	No		

Table L-9 East Dillon Water District—Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position	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	No		
Emergency manager	No		
Grant writer	No		
Other personnel	No		
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	No		
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	No		
Other	No		

Table L-10 Mesa Cortina Water and Sanitation District—Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position	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	No		
Full time building official	No		
Floodplain manager	No		



Personnel Resources	Yes/No	Department/Position	Comments
Emergency manager	No		
Grant writer	No		
Other personnel	No		
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	No		
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	No		
Other	No		

Table L-11 Snake River Water District—Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position	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	No		
Emergency manager	No		
Grant writer	No		
Other personnel	No		
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	No		
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 the water and water & sanitation districts could or already do use to help fund mitigation activities. These include the following:

- Capital improvements project funding
- Taxes for specific purposes



- Fees for water, sewer, and other services
- Impact fees for new development
- General obligation bonds
- Grants

In the past the districts have primarily used district budgets to fund mitigation.

Mitigation Outreach and Partnerships

- Homeowner meetings, website postings, and newsletters regarding wildfire, drought, and evacuation

Past Mitigation Efforts

- Forest fuel reduction, alternate water sources
- Keystone fuels reduction project
- Straight Creek fuel reduction project

Opportunities for Enhancement

Based on the capability assessment, the participating water and water & sanitation districts have several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the districts 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 district policies and ongoing duties of the districts. Continuing to train district staff on mitigation and the hazards that pose a risk to the districts will lead to more informed staff members who can better communicate this information to the public.

L.5 Mitigation Goals and Objectives

The districts discussed in this annex have adopted the hazard mitigation goals and objectives developed by the HMPC and described in Chapter 4 Mitigation Strategy.

L.6 Mitigation Actions

The special districts in this annex 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: Water and Water/Sanitation Districts—1

Jurisdiction:	East Dillon Water District, Mesa Cortina Water & Sanitation District, Dillon Valley District, Snake River Water District
Action Title:	Backup power connection
Hazard(s) Mitigated	Multi-Hazard
Priority:	High
Issue/Background:	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 districts' treatment plants and pumps to maintain water production.
Ideas for Implementation:	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.
Responsible Agency:	District
Partners:	Summit County; Hamilton Creek Metropolitan District
Potential Funding:	District and outside grants.
Cost Estimate:	\$50,000
Benefits: (Losses Avoided)	Provide domestic water service to residents in the event of a long-term power outage. Reduce losses due to service interruption.
Timeline:	2018-2025
Status:	Added in 2013. In progress. Dillon Valley is in bid stage for 2020 completion; Not completed for EDWD. Not completed for Mesa Cortina.



Mitigation Action: Water and Water/Sanitation Districts—2

Jurisdiction:	East Dillon Water District, Mesa Cortina Water & Sanitation District, Dillon Valley District, Snake River Water District
Action Title:	Trailer mounted generator
Hazard(s) Mitigated	Multi-Hazard
Priority:	High
Issue/Background:	A roll-up generator would be purchased that could be used as a countywide resource when and where needed.
Ideas for Implementation:	Facilitate a collaborative discussion between utility providers on the capability of this resource. Look for grant funding to fully fund or match fund the project. Create a shared use and cooperative agreement between the parties.
Responsible Agency:	District
Partners:	Summit County; Hamilton Creek Metropolitan District
Potential Funding:	District and outside grants.
Cost Estimate:	\$100,000
Benefits: (Losses Avoided)	Provide domestic water service to residents in the event of a long-term power outage. Reduce losses due to service interruption. A mobile generator would reduce installation and maintenance costs associated with permanent generators.
Timeline:	2018-2021
Status:	Added in 2013. In progress. Dillon Valley is making a list of contacts with portable generators in surrounding areas; Not completed for EDWD and Mesa Cortina.



Mitigation Action: Water and Water/Sanitation Districts—3

Jurisdiction:	East Dillon Water District, Mesa Cortina Water & Sanitation District, Dillon Valley District, Snake River Water District
Action Title:	Maintain existing wildfire mitigation efforts and identify access road mitigation needs
Hazard(s) Mitigated	Wildfire
Priority:	High
Issue/Background:	<p>The districts have done defensible space projects at the facility and service tank locations for each of these areas. 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.</p> <p>This project would also include working with Summit County OEM and GIS to identify district facility access roads that may need additional wildfire mitigation. Overlaying existing wildfire treatments with these roads might identify ‘gaps’ that may warrant additional mitigation efforts.</p>
Ideas for Implementation:	Ongoing work conducted at a district level. The mapping project would be done in coordination with Summit County OEM and GIS.
Responsible Agency:	Districts
Partners:	Summit County
Potential Funding:	District and outside grants.
Cost Estimate:	\$2,500.00 annually
Benefits: (Losses Avoided)	Reduce impacts from wildfire to Critical facilities. Continued access to facilities for fire protection and enhanced first responder safety.
Timeline:	2018-2021
Status:	Added in 2013. In progress. EDWD implements wildfire mitigation actions annually. Not completed for Dillon Valley. Completed and ongoing for Mesa Cortina Water & Sanitation District.



Mitigation Action: Water and Water/Sanitation Districts—4

Jurisdiction:	East Dillon Water District, Mesa Cortina Water & Sanitation District, Dillon Valley District, Snake River Water District
Action Title:	Develop Source Water Protection Plan (SWPP)
Hazard(s) Mitigated	Multi-Hazard
Priority:	High
Issue/Background:	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. SWPP have been completed for Mesa Cortina Water & Sanitation District, Dillon Valley District, Snake River Water District
Ideas for Implementation:	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 to complete plan for East Dillon Water District.
Responsible Agency:	District
Partners:	Summit County; CO Rural Water Association
Potential Funding:	CO Department of Public Health and Environment's SWAP Development and Implementation Grant.
Cost Estimate:	\$50,000
Benefits: (Losses Avoided)	Provide protection of water resources from hazard impacts.
Timeline:	1-3 years
Status:	Added in 2013. Not completed for EDWD but in progress for Dillon Valley District. Mesa Cortina Completed this in 2012. Carried forward in 2020 for Snake River Water District.



Mitigation Action: Water and Water/Sanitation Districts – 5

Jurisdiction:	Dillon Valley District
Action Title:	Hazardous Materials – Transportation
Hazard(s) Mitigated	Hazardous Materials Incidents
Priority:	High
Issue/Background:	<p>To avert hazardous materials and toxic materials spilled on I-70 during a traffic accident/incident.</p> <p>To research and determine the options on how to best plan to avert a catastrophic hazardous materials spill from an accident/incidents on I-70, which is a major highway and is located close to the District's water treatment facilities and water source.</p>
Ideas for Implementation:	See also related County Action #24 Hazmat Roadway Projects
Responsible Agency:	Dillon Valley Administrator
Partners:	CDOT, Summit County
Potential Funding:	General fund
Cost Estimate:	\$1,000
Benefits: (Losses Avoided)	The benefits would be to reduce the possibility of damage to the District's water treatment plant, and water storage tanks that serve the public.
Timeline:	2021
Status:	New in 2020



Mitigation Action: Water and Water/Sanitation Districts—6

Jurisdiction:	East Dillon Water District
Action Title:	Hydrologic Monitoring
Hazard(s) Mitigated	Drought
Priority:	Low
Issue/Background:	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.
Ideas for Implementation:	Install and maintain stream flow gauges to develop historical data for understanding localized drought status.
Responsible Agency:	East Dillon Water District
Partners:	Summit County
Potential Funding:	CWCB, FEMA HMA Grants
Cost Estimate:	\$5,000 initial installation, \$2,000 annual maintenance
Benefits: (Losses Avoided)	Drought preparation and public awareness
Timeline:	Ongoing
Status:	New in 2020



Mitigation Action: Water and Water/Sanitation Districts—7

Jurisdiction:	Mesa Cortina Water and Sanitation District
Action Title:	Cast iron water main replacement project
Hazard(s) Mitigated	Drought
Priority:	Medium
Issue/Background:	A majority of Mesa Cortina’s water mains are cast iron pipe. Cast iron is much more prone to line breaks than ductile iron due to the brittleness of cast iron.
Ideas for Implementation:	A gradual replacement of the cast iron piping will save water and money over the long run. Properly installed ductile iron should have a life expectancy of 50+ years.
Responsible Agency:	Mesa Cortina Water and Sanitation Board of Directors
Partners:	
Potential Funding:	District budget
Cost Estimate:	15,000’ of replacement at \$120/linear foot = 1.8 million dollars
Benefits: (Losses Avoided)	Reduce the loss of water lost during main breaks Reduce interruption of water service to customers caused by main breaks Helps to maintain a very critical component of a water and sewer system
Timeline:	10-15 years
Status:	New in 2020



L.7 Implementation and Maintenance

Moving forward, the Districts 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

None of the Water and Water and Sanitation District incorporated 2013 risk information into their District's plans or codes, although the HMPC noted being part of the 2013 and reviewing the information from the previous plan did provide a general understanding of each District's risks and vulnerabilities and helped to inform participation in the plan update process.

Process Moving Forward

Moving forward, the water and sanitation districts may use vulnerability information to understand the hazards that pose a risk and the specific vulnerabilities to the jurisdiction in future capital improvement planning for the Districts. 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 Districts.

As noted in Chapter 5 Plan Maintenance, the HMPC representatives from each of the water and sanitation districts 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

Each of the water and sanitation districts 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 districts will continue to involve the public in mitigation, as described in Section 5.4 of the Base Plan. The District Administrators will be responsible for representing each of the water and sanitation districts in the County HMPC, and for coordination with County staff and departments during plan updates. The water and sanitation districts realize it is important to review the plan regularly and update it every five years in accordance with the Disaster Mitigation Act Requirements.

